Mission Bay Park Improvements Program: Final Environmental Impact Report

April 2026

The City of SAN DIEGO

THE CITY OF SAN DIEGO

FINAL PROGRAM ENVIRONMENTAL IMPACT REPORT

Project No. B-18079
SCH No. 2024100048

SUBJECT: **MISSION BAY PARK IMPROVEMENTS PROGRAM**

APPLICANT: Engineering and Capital Projects Department

DRAFT DOCUMENT: December 17, 2025
FINAL DOCUMENT: April 2, 2026

In response to comments received during public review, minor revisions, additions, and clarifications have been made to the document, which do not change the conclusions of the Draft Program Environmental Impact Report (PEIR) regarding the project's potential environmental impacts and required mitigation. As defined in CEQA Guidelines Section 15088.5, minor revisions and clarifications to the document – which are shown in ~~strikeout~~/underline format – do not represent "significant new information" and, therefore, recirculation of the Draft PEIR is not warranted. No new significant environmental impacts would occur from these modifications, and similarly, no substantial increase in the severity of environmental impacts would occur.

PROJECT DESCRIPTION:

The Mission Bay Park Improvements Program is intended to implement Section 55.2 of Article V of the City Charter, which establishes the framework and allowable uses for the Mission Bay Park Improvement Fund, while also advancing the goals and policies of the Mission Bay Park Master Plan, Multiple Species Conservation Program (MSCP) and Mission Bay Natural Resources Management Plan (NRMP). With navigational improvements complete, the Program focuses on water quality enhancement, habitat restoration and expansion, shoreline stabilization, park infrastructure improvements, and strategic deferred maintenance within the Mission Bay Park Improvement Zone. These coordinated investments are designed to protect the City's investment in Mission Bay, strengthen environmental resilience, and ensure that the Park remains a safe, accessible, and sustainable regional resource.

The proposed Program analyzed within this EIR is the approval and implementation of an improvements Program including both Bay-wide elements as well as certain location-specific elements, within the Improvement Zone, which includes "those areas encompassed within the boundaries of Mission Bay Park, Oceanfront Walk from the Mission Bay jetty to Crystal Pier and the

adjoining seawall, coastal parks, and ocean beaches contagious thereto" [San Diego City Charter Section 55.2(a)(4)]. It also includes portions of Rose Creek, Tecolote Creek and the San Diego River as it passes through the boundaries of Mission Bay Park.

Consistent with the Charter's direction and the Master Plan's emphasis on water quality and ecological health, the Program advances a comprehensive set of biological and physical improvements to enhance ecosystem function and the long-term performance of the Bay. Key objectives include re-establishing multi-gradient salt marsh systems with subtidal channels, mudflats, and low-, mid-, and high-marsh habitat zones; restoring a functional tidal prism and improving tidal exchange; expanding and protecting wetlands and eelgrass beds; and creating self-sustaining native habitat communities designed to reduce long-term maintenance needs. Additional objectives include restoring shoreline treatments and stabilizing erosion control features; expanding endangered and threatened species preserves and upland habitats; completing bicycle and pedestrian paths and bridges; installing sustainable lighting, signage, and landscaping; and addressing deferred maintenance of existing capital assets. Together, these improvements support water quality, biodiversity, public access, and the long-term stewardship of Mission Bay Park.

PROJECT LOCATION:

The proposed Mission Bay Park Improvements Program (Program) is located in the Mission Bay Park Improvement Zone (Improvement Zone), located at the coastline in the City of San Diego bounded by the communities of Pacific Beach to the north, Ocean Beach to the south, Mission Beach to the west, and Interstate (I) 5 to the east. The Improvement Zone encompasses the 4,235-acre Mission Bay Park, along with additional areas in all directions. Regional access to the Program site is provided by I-5 from the north and south, and I-8 from the east. Access to each individual element of the Program is provided by local roadways surrounding Mission Bay Park.

Within the Improvement Zone are various identified sites for known discrete projects within the Program to be analyzed under this Program Environmental Impact Report (EIR). An overview of the project component locations is provided in the table below.

Program Elements

Element	Location
Wetland and Water Quality Improvements	North Fiesta Island
	Tecolote Creek and Fiesta Island Causeway
	Cudahy Creek
Restoration of Shoreline	Vacation Island NW
	Vacation Island NE
	Vacation Island SW
	Ventura Cove
	Crown Point
	West Sail Bay
	Bonita Cove
	Bahia Point

Program Elements

Element	Location
Upland Habitat and Preserve Expansion	Site No. 1 Fiesta Island South
	Site No. 2 Fiesta Island North Central
	Site No. 3 Fiesta Island Near Youth Camping
	Site No. 4 Fiesta Island Least Tern Preserve Area
	Site No. 5a Sea World Drive/San Diego River Cloverleaf Enhancement Area
	Site No. 5b Sea World Drive/San Diego River Triangle Enhancement Area
	Site No. 5c Sea World Drive/San Diego River South Shores East Restoration
Bicycle and Pedestrian Improvements	Rose Creek Bike Path
	Fiesta Island Causeway**
	Ocean Beach Bike Path
Restoration of Seawall Bulkhead	Mission Beach – Pacific Beach
Deferred Maintenance*	Bay-wide
Signage Update*	Bay-wide

ENVIRONMENTAL DETERMINATION:

This document has been prepared by the City of San Diego's Entitlements and CEQA Compliance Section under the direction of the Engineering and Capital Projects Department and is based on the City's independent analysis and conclusions made pursuant to 21082.1 of the California Environmental Quality Act (CEQA) Statutes and Sections 128.0103(a), 128.0103(b) of the San Diego Land Development Code.

Based on the analysis conducted for the project described above, the City of San Diego, as the Lead Agency, has prepared the following Environmental Impact Report. The analysis addressed the following issue area(s) in detail: **Air Quality, Biological Resources, Energy, Geology and Soils, Greenhouse Gas Emissions, Historical Resources, Health and Safety, Hydrology and Water Quality, Land Use and Planning, Noise, Recreation, and Tribal Cultural Resources.** The Environmental Impact Report concluded that the project would result in significant but mitigated environmental impacts to **Air Quality and Tribal Cultural Resources**, and significant and unmitigated impacts to **Biological Resources, Historical Resources, Noise, and Recreation**. All other impacts analyzed in the draft EIR were determined to be less than significant.

The purpose of this document is to inform decision-makers, agencies, and the public of the significant environmental effects that could result if the project is approved and implemented, identify possible ways to minimize the significant effects, and describe reasonable alternatives to the project.

RESULTS OF PUBLIC REVIEW:

( ) No comments were received during the public input period.

( ) Comments were received but did not address the accuracy or completeness of the draft environmental document. No response is necessary and the letters are incorporated herein.

(**X**) Comments addressing the accuracy or completeness of the draft environmental document were received during the public input period. The letters and responses are incorporated herein.

Carrie Purcell
Deputy Director
Engineering and Capital Project Department

December 17, 2025
Date of Draft Report

April 2, 2026
Date of Final Report

Analyst: JMKennedy

PUBLIC REVIEW DISTRIBUTION:

The following agencies, organizations, and individuals received a copy or notice of the draft Environmental Impact Report and were invited to comment on its accuracy and sufficiency. Copies of the Environmental Impact Report, the Mitigation Monitoring and Reporting Program and any technical appendices may be reviewed in the offices of the Development Services Department, or purchased for the cost of reproduction.

Federal Government
US EPA Region 9 (19)
US Fish and Wildlife Service (23)
USDA Natural Resources Conservation SRVS (25)
US Army Corps of Engineers LA District (26)

State of California
CA Department of Fish & Wildlife (32)
CA Environmental Protection Agency (37A)
CA Natural Resources Agency (43)
CA Regional Water Quality Control Board (44)
California Coastal Commission (47)
California Transportation Commission (51)
California State Coastal Conservancy (54)
State Water Resources Control Board (55)
CA State Lands Commission (62)
CA State Parks (371)

County of San Diego
County Environmental Coordinator (74)
County of San Diego Dept. of Environmental Health (74)
SD Association of Government (108)
San Diego County Regional Airport Authority (110)

City of San Diego
Mayor's Office (91)
Councilmember Joe LaCava
Councilmember Jennifer Campbell
Councilmember Stephen Whitburn
Councilmember Henry L. Foster III
Councilmember Marni Von Wilpert
Councilmember Kent Lee
Councilmember Raul Campillo
Councilmember Vivan Moreno
Councilmember Sean Elo-Rivera
Park & Recreation Board (77)
Central Library (81)
Historical Resources Board (87)
Park Development (93)

City of San Diego (cont.)
Wetland Advisory Board (171)
MMC (77A/180)
City Attorney's Office
Environmental Services Department (93A)
Planning Department
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- Julia Chase
- Jonathan Avila

Sustainability & Mobility Department
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- Christine Mercado
- Phil Trom

Development Services Department
- EAS

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- Mayra Medel
- Milton Clark
- Cristobal Amezcua
- Ryan Barbrick
- Cherlyn Cac
- Penny Maus
- Andrew Field
- Karen Dennison
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- Mike Rodrigues
- Michelle Abella-Shon

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- Meghan Hickey
- Kelsey Hall
- Dirk Smith

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- Luis Schaar
- Carrie Purcell
- Nancy Graham
- Kristen Forburger
- Tyler Sherer
- Nicholas Ferracone
- Jamie Kennedy

City of San Diego Libraries (81A-81KK)
Economic Development Department
Mission Bay Park Committee (318A)

Other Interested Groups, Organizations, and Individuals
Rancho Santa Ana Botanic Garden at Claremont (161)
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Ron Christman (215)
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Native American Distribution (225A-225T)
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Crown Point Assn (376)
Pacific Beach Historical Society (377)
San Diego Gas & Electric (381)
San Dieguito River Valley Conservancy (422)
Neighborhood Canyon Creek & Park Groups (165A)
San Diego Audbon Society (167A)

Other Interested Groups, Organizations, and Individuals (cont.)
Endangered Habitats League (182A)
Lipay Nation of Santa Ysabel (215B)
Justine Nielsen (308A)
Mike Rodrigues (318A)
Citizens Coordinate for Century 3 (324A)
Allied Gardens-Grantville Community Council (343B)
Ocean Beach Merchants Assn (367B)
The Peninsula Beacon (367C)
Barrio Logan Community Planning Group
Clairemont Mesa Community Planning Group
Kearny Mesa Community Planning Group
La Jolla Community Planning Group
City Heights Community Planning Group
Eastern Area Community Planning Group
Midway-Pacific Highway Community Planning Group
Navajo Community Planning Group
Carmel Mountain Community Planning Group
Sabre Springs Community Planning Group
Carmel Valley Community Planning Group
Fairbanks Country Club Community Planning Group
Del Mar Mesa Community Planning Group
North Park Community Planning Group
Ocean Beach Planning Board
Old Town Community Planning Group
Pacific Beach Community Planning Group
Pacific Highlands Ranch Community Planning Group
Black Mountain Rach Community Planning Group
Peninsula Community Planning Group
Rancho Bernardo Community Planning Group
San Pasqual Community Planning Group
San Ysidro Community Planning Group
East Elliot Community Planning Group
Tierrasanta Community Planning Group
Torrey Pines Community Planning Group
University Community Planning Group
Torrey Hills Community Planning Group
College Area Community Planning Group
Downtown Community Planning Group
Greater Golden Hill Community Planning Group
Kensington Community Planning Group
Linda Vista Community Planning Group
Mira Mesa Community Planning Group
Miramar Ranch North Community Planning Group
Mission Bay Park Committee
Mission Valley Community Planning Group
North City Subarea 2 Community Planning Group

Other Interested Groups, Organizations, and Individuals (cont.)
Otay Mesa Community Planning Group
Otay Mesa-Nestor Community Planning Group
Rancho Encantada Community Planning Group
Rancho Penasquitos Community Planning Group
Scripps Miramar Ranch Community Planning Group
Sierra Mesa Community Planning Group
Skyline Paradise Hills Community Planning Group
Southeastern San Diego Community Planning Group
Torrey Highlands Community Planning Group
Uptown Community Planning Group
Scripps Ranch Community Planning Group
Chollas Valley Encanto Neighborhoods Community Planning Group
Mission Beach Community Planning Group
Adams Community Recreation Group
Allied Gardens Community Recreation Group
Azalea Community Recreation Group
Balboa Park Committee
Balboa Park/Morley Field Community Recreation Group
Black Mountain Park Citizen's Advisory Committee
Carmel Valley Community Recreation Group
Chollas Valley Community Recreation Group
City Heights Community Recreation Group
Colina del Sol Community Recreation Group
Community Parks I Committee
Dolores Magadaleno Community Recreation Group
Doyle Community Recreation Group
Dusty Rhodes Community Recreation Group
Encanto Community Recreation Group
Greater North Clairemont Community Recreation Group
Kearny Mesa Community Recreation Group
La Jolla Community Recreation Group
Linda Vista Community Recreation Group
Los Penasquitos Community Recreation Group
Martin Luther King Jr Community Recreation Group
Mira Mesa Community Recreation Group
Mission Bay Park Improvement Fund Oversight Committee
Mission Trails Regional Park Citizens' Advisory Committee
Mission Trails Regional Park Task Force
Mountain View Community Recreation Group
Municipal Gold Committee
Nobel Community Recreation Group
North Park Community Recreation Group
Ocean Beach Community Recreation Group
Ocean View Hills Community Recreation Group
Open Space Canyons Advisory Committee
Otay Mesa Community Recreation Group

Other Interested Groups, Organizations, and Individuals (cont.)
Otay Valley Regional Park Citizens' Advisory Committee
Pacific Highlands Ranch Community Recreation Group
Paradise Hills Community Recreation Group
Parks and Recreation Board
Point Loma Community Recreation Group
Rancho Penasquitos Community Recreation Group
Robb Field Community Recreation Group
Robert Egger Sr South Bay Community Recreation Group
San Carlos/Lake Murray Community Recreation Group
San Diego Civic Dance Association
San Diego Regional Park Improvements Fund Oversight Committee
San Ysidro Community Recreation Group
Santa Clara/Pacific Beach Community Recreation Group
Scripps Ranch Community Recreation Group
Sierra Mesa Community Recreation Group
Skyline Hills Community Recreation Group
South Clairemont Community Recreation Group
Southcrest Rec Community Recreation Group
Standley Community Recreation Group
Stockton Community Recreation Group
Therapeutic Recreation and Age Well Services
Tierrasanta Community Recreation Group
University Heights Community Recreation Group
Willie Henderson Sports Complex
American Academy of Pediatrics California Chapter 3
Community Planners Committee
Richard Drury
Molly Green
John Stump
Interested Residents
AFT Guild Local 1931
American Bird Conservancy
Aqua Adventures Mission Bay
Barona Cultural Center & Museum
The Bike Revolution
Buena Vista Audubon Society
Business for Good
Center for Community Energy
Center for Local Government Accountability
Climate Action Campaign
The Climate Reality Project
Coffee Cycle Roasting
Community Congregational Church of Pacific Beach
Cruise San Diego
Dream Electronics Recycling
Dwelling on Carbon

Other Interested Groups, Organizations, and Individuals (cont.)
Earth Discovery Institute
Fauna de Noroeste
Friends of Famosa Slough
Groundwork San Diego
Islamic Center of San Diego
Law Office of Michelle A Gastill
League of Women Voters
Living Coast Discovery Center
McCullough
Montgomery Gibbs Environmental Coalition
Native Like Water
Nature Collective
The Ocean Foundation
Outdoor Outreach
Paradise Gardeners
San Diego 350
San Diego Canyonlands
San Diego City College Audubon Club
San Diego Coastkeeper
San Diego County Democrats for Environmental Action
San Diego Democrats for Equality
San Diego Earthworks
San Diego River Valley Conservancy
San Diego Whale Watch
Stay Cool for Grandkids
St Andrews by the Sea Episcopal Church
St Dunstans Episcopal Church
Strong Hearted Native Women's Coalition
Sustainability Matters
Temple Emanu-El
Terra Mesa Club
Urban Corps of San Diego County
Waste for Life
Wildcoast
San Diego County Bicycle Coalition
San Diego Mountain Biking Association
Moment Bicycles
Uptown Bicycles
Gravelstoke
Adams Avenue Bicycles
Rouleur Brewing Company
Celo Pacific Bicycle Racing Team
Major Taylor Cycling Club San Diego
Ranchos Cycling Club
Black Girls Do Bike
Challenged Athletes Foundation

Other Interested Groups, Organizations, and Individuals (cont.)
Sports 4 Exceptional Athletes
ZLAC Rowing Club
Mission Bay Yacht Club
Mission Bay Aquatic Center
Tower Beach Club
Mission Beach Women's Club
Bluewater Vacation Homes
Wonderboats
Adventure Water Sports
Pacific Beach Tennis Club
Pacific Beach Tennis Club C/O Mission Bay Youth Baseball
Ikuna Koa Outrigger Canoe Club
San Diego Mission Bay Boat & Ski Club
Mission Bay RV Resort
American Boxing Muay Thai & Fitness
San Diego Mission Bay Resort
Action Sport Rentals
San Diego Canoe & Kayak Team
Seacamp San Diego
BSA Camp Fiesta Island
San Diego Dragon Boat Team
Discover Mission Bay
Seaworld San Diego
Hubbs Seaworld Research Institute
Freedom Boat Club San Diego
Dana Landing Marina
Blue Seas Fabrication
Fastlane Sailing & Kayaking
Dana Landing
Fishing Charters of San Diego
Novia Loca Sportfishing
The Dana on Mission Bay
Hyatt Regency Mission Bay Spa and Marina
Red Marlin San Diego
Seaforth Boat Rental
Tailwalker Whale & Dolphin Adventures
Osprey Yacht Charters
Kraken Sportfishing
Sportsmen Seafood
H2O Jetski Rentals
Ironclad Sportfishing
No Patience Sportfishing & Seafood
Awol Sport Fishing
Brothers Sport Fishing
Seaforth Sport Fishing
Ranch Events

Other Interested Groups, Organizations, and Individuals (cont.)
Notary Public Class
Marina Village Conference Center
San Diego Crew Classic
San Diego Parasail Adventures
Net Zero Expeditions
Offshore Blue Adventures
Driscoll Mission Bay
Paradise Point Resort & Spa
San Diego Bayfair
San Diego Rowing Club
Bahia Resort Hotel
Belmont Park

ENVIRONMENTAL IMPACT REPORT

Mission Bay Park Improvements Program

Lead Agency:

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Engineering & Capital Projects Department

APRIL 2026

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This chapter contains the comment letters received in response to the Draft Mission Bay Park Improvements Program (Program) Environmental Impact Report (EIR) during the 49-day public review period.

The California Environmental Quality Act (CEQA) Guidelines Section 15088(a) requires a lead agency to evaluate and provide written responses to comments raising significant environmental issues. Section 15204(a) provides guidance on the focus of review of EIRs, that public agencies should focus on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the project might be avoided or mitigated. CEQA does not require a lead agency to conduct every test or perform all research, study, and experimentation recommended or demanded by commentors. When responding to comments, lead agencies need only respond to significant environmental issues and do not need to provide all information requested by reviewers, as long as a good faith effort at full disclosure is made in the EIR.

In reviewing comments and providing responses on the following pages, Sections 15088(a) and 15204(a) of the CEQA Guidelines are considered. The focus is on providing responses to comments that raise significant environmental issues. The responses amplify or clarify information provided in the Draft Program Environmental Impact Report (PEIR) and/or refer the reader to the appropriate place in the document where the requested information can be found. Comments that are not directly related to the adequacy of the environmental analysis are noted for the record.

The Draft PEIR was published and circulated for review and comment by the public and other interested parties, agencies, and organizations for a 45-day public review period from December 17, 2025, and ending February 4, 2026, in accordance with CEQA Guidelines Section 15105(a). Electronic copies of the document were distributed to the State Clearinghouse. A Notice of Availability of the Draft EIR was sent to agencies and interested parties. An electronic copy of the EIR and the technical appendices were posted on the City of San Diego's (City's) website at www.sandiego.gov/ceqa/draft and the Governor's Office of Land Use & Climate Innovation CEQANet Web Portal at: https://ceqanet.lci.ca.gov.

During the public review period, the City received 13 comment letters on the Draft PEIR (see Table RTC-1).

Table RTC-1. Comment Letters Received on the Draft Program Environmental Impact Report

Letter ID	Agency/Name	Date
A	Mark Brown	December 19, 2025
B	California Native Bee Society	January 29, 2026
C	California Department of Fish and Wildlife	January 30, 2026
D	Friends of Rose Creek	February 1, 2026
E	Howard Leight	February 3, 2026
F	California Department of Transportation	February 3, 2026
G	Manzanita Band of the Kumeyaay Nation	February 3, 2026
H	Thomas Evans	February 3, 2026
I	Project GNBee	February 3, 2026
J	San Diego Bird Alliance	February 3, 2026
K	Mission Bay Youth Field Association	February 3, 2026
L	WILDCOAST	February 3, 2026
M	Department of Toxic Substances Control	February 6, 2026
N	San Diego Bee City Committee	February 12, 2026
O	US Fish and Wildlife Service	February 12, 2026

Comment Letter A

Outlook

[EXTERNAL] Re: Mission Bay Park Improvements Program Draft EIR is Now Available

From mark brown <markbrown2glamis@yahoo.com>
Date Fri 12/19/2025 8:59 AM
To CIP CEQA Document Process <CIP-CEQA@sandiego.gov>

"This email came from an external source. Be cautious about clicking on any links in this email or opening attachments."

Didn't we already do this a few years ago and waste Millions in Taxpayers dollars?

Yahoo Mail: Search, Organize, Conquer

On Wed, Dec 17, 2025 at 2:50 PM, City of San Diego, Engineering & Capital Projects Department <ecp-communication-sandiego.gov@shared1.ccsend.com> wrote:

SD Engineering & Capital Projects

Mission Bay Park Improvements Program Draft EIR is Now Available

The City of San Diego has released a Draft Program Environmental Impact Report (PEIR) for the Mission Bay Park Improvements Project and invites you to comment on the environmental document. The Draft EIR is available for public comment for over 45 calendar days starting **December 17, 2025** until close of business **February 4, 2026**.

The Draft EIR is available to read here: https://www.sandiego.gov/cega/draft

How to Submit Comments

Comments on this Draft Environmental Impact Report must be received by close of business on **February 4, 2026** to be included in the final document considered by decision making authorities. When submitting comments, please reference the project name and number (**Mission Bay Park Improvements Program EIR/WBS# B-18079**). The City requests that all comments be provided electronically via email at: CIP-CEQA@sandiego.gov.

Additional Information

For more program background and information, please visit our dedicated Capital Improvement webpage. There you would be able to find a Summary of Priority Projects, Project Fact Sheets, a Draft Implementation Framework and more.

To access this information, please visit: https://www.sandiego.gov/cip/project-info/project-profiles/mission-bay-peir

Join Our Mailing List

If you would like to receive email updates regarding this project and related meetings and events from the Engineering & Capital Projects Department, click on the "Join Our Mailing List" button above and send us an email requesting to join the list for future updates.

Questions? Contact CIP-CEQA@sandiego.gov.

City of San Diego Engineering and Capital Projects Department | Website

City of San Diego Engineering & Capital Projects Department | 8525 Gibbs Dr. Suite 302 | San Diego, CA 92123 US

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Response to Comment Letter A

A-1 The comment does not address the adequacy of the EIR, will be shared with the decision makers, and no further response is required.

Comment Letter B

California Native Bee Society

January 29, 2026

City of San Diego Engineering & Capital Projects Department
8525 Gibbs Dr., Suite 302
San Diego, CA 92123
CIP-CEQA@sandiego.gov

Subject: MISSION BAY PARK IMPROVEMENTS PROGRAM [MBPIP] EIR/WBS# B-18079

Dear City of San Diego Engineering & Capital Projects Department,

The California Native Bee Society (CalNBS) is grateful for the opportunity to review and comment on the MBPIP EIR regarding the North Fiesta Island Wetlands Conceptual Habitat Restoration and Monitoring Plan. CalNBS is a nonprofit seeking to protect California's native bees by fostering sustainable stewardship through research, education, and conservation. We reviewed the restoration plan documents and note that construction of a temporary road and soil stockpiling on top of the nesting aggregation, as outlined in the EIR, would adversely impact a bee species with highly specialized habitat requirements. **We cite our concerns on an annotated version of the EIR (PP. 9-16), and provide a list of suggested modifications that would support the bee.** We fully support the city's mission to improve wetland habitat, and we are writing to propose minimal alterations to the current plan in order to maintain existing habitat for a bee species endemic to western North America (*Dieunomia nevadensis* ssp. *angelesia*) with a dense nesting aggregation with thousands of nests on Fiesta Island.[1]

B-1

Native bees are critical pollinators of native plants, supporting plant reproduction, genetic diversity, and the long-term success of habitat restoration efforts. San Diego County alone supports more than 700 native bee species, highlighting its global significance for pollinator diversity; by comparison, approximately 800 native bee species occur across the entire eastern United States. More than 70% of native bee species nest underground and depend on stable, undisturbed soils, making ground-disturbing activities such as grading, soil stockpiling, and road construction a significant conservation threat.

Like most insects, this bee does not yet have a formal conservation status designation such as those applied to species like the Least Tern or Ridgway's Rail; however, one of the primary criteria used by ranking agencies such as the International Union for Conservation of Nature (IUCN) is geographic range size.[2] *Dieunomia nevadensis* ssp. *angelesia* has a small range size as illustrated in the two attached maps (Figures 1 & 2)[3,4] and outlined in the species information sheet (PP. 6-8). The publication mapping the range of this species (Cross & Bohart 1960), in combination with the lack of recently digitized museum records, provides important evidence that it is crucial to conserve their limited habitat.[3,4] Almost all of the recent (post-1990) records for this species are from the nesting aggregations on Fiesta Island, highlighting the importance of protecting this site.[3]

This nesting site was first discovered on September 19, 2023, by Bonnie Nickel and reported to Sara Allen of San Diego Parks and Rec.[5] During that 2023 flight season, and in 2024 and 2025, numerous observations have been documented and confirmed by taxonomic experts on the community science platform www.iNaturalist.org and it drew the attention of a postdoctoral researcher at Cornell University studying ground-nesting bees.[6,7] One of the nesting sites is adjacent to the new channel proposed to be excavated south of the Least Tern habitat and is directly east of the temporary road the heavy equipment will be traveling back and forth on during the project (see

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California Native Bee Society

annotated map, P. 11; Fig. 2 from EIR/WBS# B-18079). Perhaps most significantly, however, is that the nest area is included in Site #1 for soil stockpiling. The nesting aggregation, in all probability, would not survive having soil stacked on top of it or heavy vehicles traveling over it; these activities will likely crush the delicate soil tunnels and block airflow significantly, in addition to blocking their exit routes out of the nests (Figure 3 illustrates nest structure and threats to the aggregation due to soil stockpiling, fence installation, and removal of floral resources). B-1

CalNBS proposes the following six modifications to the city's plan to support wetland restoration and to preserve the *Dieunomia nevadensis* ssp. *angelesia* nesting aggregation:

1. Retain flower species that are known hosts of the bee, and include these species in seed mixes for restoration (i.e., *Isocoma menziesii*, *Baccharis sarothroides*, *Heterotheca grandiflora*). We also note the presence on north Fiesta Island of a California endemic species of mining bee, *Andrena isocomae*, which specializes on the same flowers and would benefit from these plants.[8,9] B-2
2. Store soil away from the nesting aggregations (we suggest using Sites #2 and #3, and avoid Site #1)
3. If soil storage locations cannot be modified, work with qualified researchers to evaluate the feasibility of soil collection and nest relocation.
4. Redirect the temporary road for heavy equipment further to the west of the nesting aggregation
5. Limit construction activity to be outside of the species active flight season (which is September-October)
6. Install fencing and informational signage around the nesting aggregation to protect it during construction.

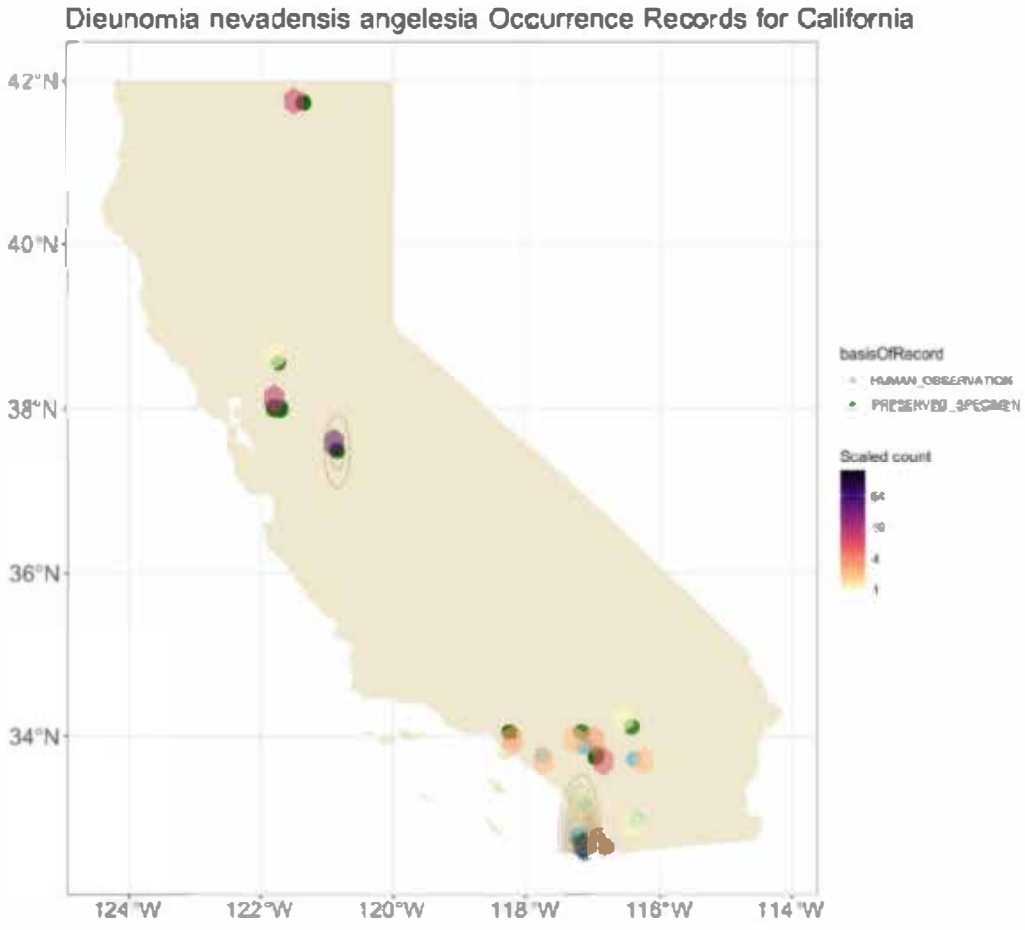
Attached with the letter, the following pages include our maps and references; an informational document about *Dieunomia nevadensis* ssp. *angelesia;* comments and recommendations pertaining to the following sections on the EIR/WBS#/ B-18079: 3.1.4.1.2, 4.2.3, 5.2-5.3, 5.4.1/5.5.7, Fig.2, Fig.11; Appendix B: 5.1.2, 5.2.5; email correspondence between Bonnie Nickel (CalNBS) and Sara Allen (City of San Diego). We look forward to the opportunity to continue the dialog, and we are happy to visit the nesting aggregation with you to delineate areas to avoid, as suggested in modification #4. Please do not hesitate to reach out to Bonnie Nickel (bonnie@calnbs.org) directly should you have any questions. B-3

Respectfully,

Bonnie Nickel, Board Member; Fiesta Island Bee Committee Chair
Jen Schlauch Saiyawong, CalNBS member; PhD Candidate at UC Irvine studying wetland bees
Jess Mullins, President; PhD Candidate at UC San Diego studying native bees
Megan Wagner, CalNBS Communications
Cindy Pencek, CalNBS Secretary
Rachel Allingham, CalNBS Conservation Chair
Kate Walker, CalNBS Treasurer
Kristal Watrous, CalNBS Vice President
Dawn Gray, CalNBS Treasurer

California Native Bee Society

Figure 1. Global Biodiversity Information Facility (GBIF) occurrence records map for the subspecies *Dieunomia nevadensis* ssp. *angelesia*, split into human observations from iNaturalist in light blue and preserved specimen records from museums in dark green. The hexes show the density of observations and circles showing hotspots for occurrences, highlighting that coastal San Diego is a hotspot for this subspecies and that there are not that many records across the state.[3] *Map prepared by Jen Schlauch Selyewong.*



California Native Bee Society

Figure 2. Distribution Map of the five subspecies of *Dieunomia nevadensis* from Cross & Bohart (1960) illustrating the narrow range size for *Dieunomia nevadensis* ssp. *angelesia* in the red outline.[4]

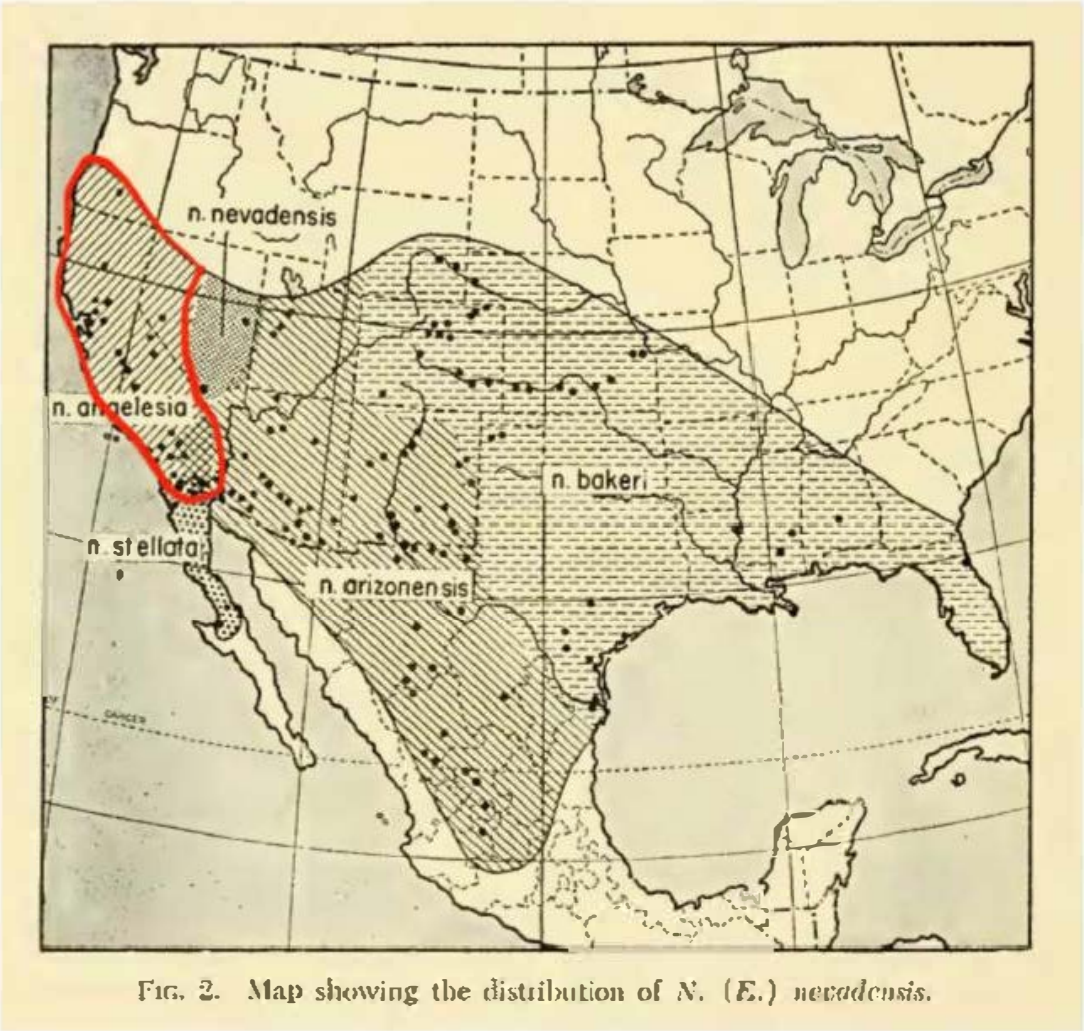
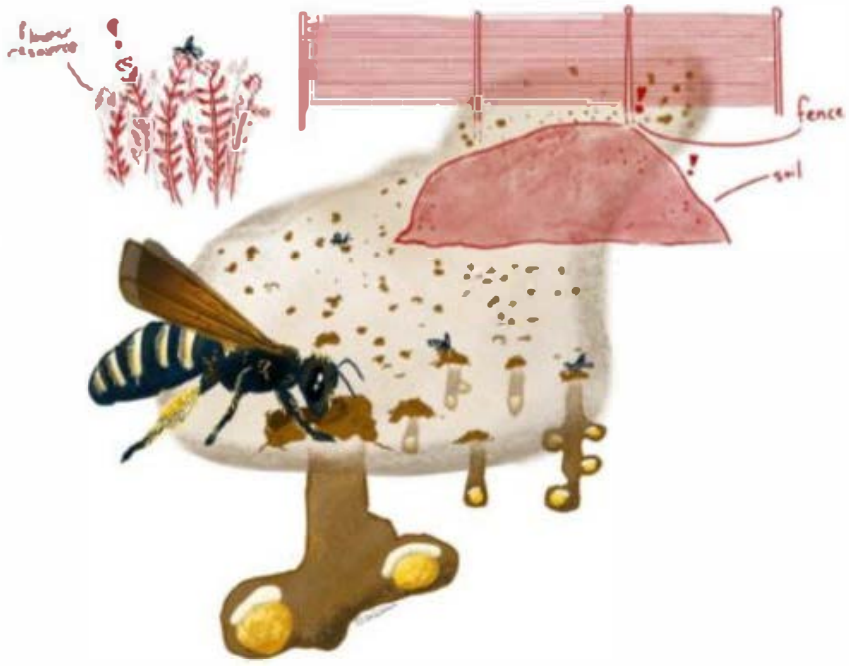


FIG. 2. Map showing the distribution of *N.* (*E.*) *nevadensis*.

California Native Bee Society

Figure 3. Nest structure and perceived threats to the aggregation due to soil stockpiling, fence installation, and removal of floret resources. *Illustration by Jen Schlauch Saiyawong.*



REFERENCES

1. Project GNBee. [Project GNBee]. (2 May 2024). Skittering *Dieunomia nevadensis* [Video]. YouTube. https://www.youtube.com/shorts/Gk4w_OQu9GE
2. IUCN. (2012) *IUCN Red List Categories and Criteria: Version 3.1*. Second edition. Gland, Switzerland and Cambridge, UK: IUCN. iv + 32pp.
3. GBIF.org (18 January 2026) GBIF Occurrence Download https://doi.org/10.15468/dl.mmkpgf
4. Cross, E. A., & Bohart, G. E. (1960). The biology of *Nomia (Epinomia) triangulifera* with comparative notes on other species of Nomia. *University of Kansas Science Bulletin*, *41*(6), 761.
5. Emails from Bonnie Nickel to Sara Allen.
6. URL for iNaturalist observations of *Dieunomia nevadensis* ssp. *angelesia* on Fiesta Island: https://www.inaturalist.org/observations?nelat=32.790544222367838&nelng=-117.20839308631787&project_id=175595&subview=map&swlat=32.766243016374131&swlng=-117.23045152325635&taxon_id=313725
7. Project GNBee. [Project GNBee]. (9 April 2024). *GNBee Talk #2: Bonnie Nickel* [Video]. YouTube. https://www.youtube.com/watch?v=pXF2vdvVNG0
8. GBIF.org (21 January 2026) GBIF Occurrence Download https://doi.org/10.15468/dl.mvr656
9. LaBerge, W. E. (1967). A revision of the bees of the genus *Andrena* of the Western Hemisphere. Part I. Callandrena. (Hymenoptera: Andrenidae).

Dieunomia nevadensis ssp. *angelesia* Factsheet

SCIENTIFIC NAME

Dieunomia nevadensis ssp. *angelesia*

CLASS, ORDER, FAMILY

Insecta, Hymenoptera, Halictidae

RANK / STATUS

As with most insects, this subspecies has not yet been formally ranked by the International Union for the Conservation of Nature or NatureServe.

One of the main criteria used for ranking species is range size, and this subspecies has a narrow range size, primarily in California.

GENERAL DESCRIPTION

Dieunomia nevadensis ssp. *angelesia* is a medium-sized, solitary native bee with a black body, pale hair, and darkened wings. It nests in large aggregations. It is a late-flying species that is active primarily in early fall and is closely associated with native sunflower-family plants.

Dieunomia nevadensis ssp. *angelesia*

Male on *Isocoma menziesii* Female on *Isocoma menziesii* Female entering her nest hole

(Photos by Sonnie Nickel)

DISTRIBUTION

Western North America, from southern Oregon to northern Baja California and western Nevada.

HABITAT

Open coastal and inland habitats that support fall-blooming flowers in the sunflower family (Asteraceae). We note that several populations have been found in wetland habitat, including on Fiesta Island and Tijuana River Slough in San Diego, California.

Neat aggregation of *Dieunomia nevadensis* ssp. *angelesia* in salt pan on north Fiesta Island (Photo by Bonnie Nickel)

LIFE HISTORY / BEHAVIOR

This subspecies is active during late summer and early fall, with peak activity occurring from September through October locally, though emergence may begin slightly earlier or extend later depending on environmental conditions. During this brief flight period, adults are actively foraging, mating, and nesting.

Dieunomia nevadensis ssp. *angelesia* is a floral specialist (oligolectic), collecting pollen exclusively from plants in the Asteraceae (sunflower) family. In the local population, females visit Coastal Goldenbush (*Isocoma menziesii*), Broom Baccharis (*Baccharis sarothroides*), and Telegraphweed (*Heterotheca grandiflora*).

Females are solitary, but nests occur in dense aggregations, which may provide benefits such as predator dilution and increased mating opportunities. Each female independently excavates and provisions her own nest. Nests consist of a deep vertical burrow, sometimes reaching up to one foot in depth, with several horizontal side tunnels. At the end of each tunnel, the female lays a single egg on a provision mass composed of pollen and nectar.

Development occurs entirely underground. Eggs hatch into larvae that feed on the provision mass and later pupate within the nest. The developing bees remain belowground until the following fall, when adults emerge synchronously to repeat the life cycle.

ECOLOGICAL NOTES

As a late-season specialist pollinator, *Dieunomia nevadensis* ssp. *angelesia* is tightly linked to the availability of fall-blooming native plants and intact nesting substrates. Disturbance to nesting areas during the fall flight season may disproportionately impact local populations.

REFERENCES

Cross, E. A., & Bohart, G. E. (1960). The biology of *Nomia (Epinomia) triangulifera* with comparative notes on other species of Nomia. *University of Kansas Science Bulletin, 41*(6), 761.

Wilson JS, Messinger Carril O. *The Bees in Your Backyard: A Guide to North America's Bees*. Princeton, NJ: Princeton University Press; 2016.

MISSION BAY PARK IMPROVEMENTS PROGRAM [MBPIP] EIR/WBS# B-18079: North Fiesta Island Wetlands Conceptual Habitat Restoration and Monitoring Plan, San Diego, California, Draft EIR, November 2025

***3.1.4.1.2 Project Impacts* (page 23)**

"The restoration area would be created by excavating the existing land to lower the interior elevations of the Project footprint to a gradient that gently transitions from the existing elevation down through coastal strand, transitional wetland, saltmarsh, mudflats, and subtidal channels. Excavation would impact invertebrates, shorebirds, and other wildlife species. Soil export from the restoration area is anticipated at approximately 810,000 cubic yards of soil, which can be stockpiled on Fiesta Island or exported directly to other restoration projects within Mission Bay. Stockpiling of soils would displace invertebrates, shorebirds, and other wildlife species. Contour grading would take place to create microtopographic elevations within the saltmarsh. The contour grading would displace invertebrates, fish, and alter avian species' foraging areas. Some biochemical reactions may be impacted in the photic zone of open water where sufficient light penetration allows for photosynthesis. In addition, there may be some minimal indirect impacts to fish, invertebrates, shorebirds, and other wildlife species as a result of this contour grading."

4.2.3 PRELIMINARY PROJECT SCHEDULE

"Environmental constraints of endangered bird nesting seasons require that certain elements of the overall Project be phased or timed. Nesting restrictions are imposed from February 15 through September 15 each year for the California least tern nesting area to the north, limiting excavation activities to 5.5 months each year."

CalNBS COMMENT: Active emergence, foraging, and nesting of *Dieunomia nevadensis* ssp. *angelesia* occur during September and October, sometimes starting in August and continuing into November. The rest of the year the eggs, larvae, and pupae remain underground in the nesting site.

5.2 PLANT SALVAGE

"Because of the limited amount of native plant cover, existing native vegetation on site would be salvaged to the greatest extent practicable. Native plant species to be salvaged on site include special status species woolly seablite (California Rare Plant Rank 4.2, special status species Lewis' evening-primrose (California Rare Plant Rank of 3), and any other native marsh species that would be incidentally impacted by grading activity, such as pickleweed (*Salicornia pacifica*). Other plant species as identified by the Project biologist would be salvaged and reused on site. All native plants intended for salvage would be kept on site in a location agreed

upon by the Project biologist and the construction manager to prevent further damage during vegetation removal and site preparation."

5.3 VEGETATION REMOVAL {page 38}

"All vegetation remaining within the Project site after plant salvage would be removed using a small backhoe and/or excavator. Additionally, dead thatch, deadwood, and other organic litter would be removed from the site."

CalNBS COMMENT: *Dieunomia nevadensis* ssp. *angelesia* forage primarily on Coastal Goldenbush {*Isocoma menziesii*}, with additional foraging on Broom Baccharis {*Baccharis sarothroides*} and sometimes Telegraph Weed {*Heterotheca grandiflora*}. Will/can Coastal Goldenbush be left in place and/or salvaged as much as possible, even though it has no special status ranking? If not, we recommend plentiful planting of *Isocoma menziesii*.

5.4 SOIL EXPORT AND TESTING

5.4.1 SOIL EXPORT

"As discussed in Section 2.1.4.1.2, Project Impacts, the Project would have an anticipated surplus of 810,000 cubic yards of material. This soil would either be stockpiled or exported directly to other restoration projects within Mission Bay or both. Stockpiling can take place within the kelp drying and/or sand processing area on Fiesta Island."

5.5.7 UPLAND

"Approximately 3.68 acres of upland are located within the restoration area. Two small upland areas are located in the central portion of the restoration area within the transitional wetland just north of the second tertiary channel on the west side of the secondary channel. Additional upland areas are located along the east edge of the site and below the main channel on the southern side of the site. The proposed elevation varies from approximately 6.4 feet to approximately 18 feet (Appendix A)."

CalNBS COMMENT: There are certain areas that are salt flats AKA alkali flats that are preferred nesting areas for *Dieunomia nevadensis* ssp. *angelesia*. The primary nest aggregation of this species is adjacent to and below the proposed main channel, comprising hundreds if not thousands of these bees. We are concerned that the grading and stockpiling of soil as designated in Figure 2, page 103, would likely decimate this population and its nesting aggregation. We propose that only Sites #2 & #3 be used to stockpile soil. In addition, we suggest installing fencing around the nest aggregation to protect it during construction.

Figure 2. Project Site (page 89)

Annotations on MBPIP EIR/WBS# B-18079 11

CalNBS COMMENT: These screenshots show iNaturalist observations of active *Dieunomia nevadensis* ssp. *angelesia* bees at their nesting aggregation during September-October 2023-2025. https://www.inaturalist.org/observations?nelat=32.790039142355532&nelng=-117.21586030621533&project_id=175595&subview=map&swlat=32.78341872130367 6&swlng=-117.22075265545 85&taxon_id=313725. This is Site #1 where the city wants to stockpile soil. We recommend stockpiling soil at Sites #2 & #3 instead.

See also Figure 5-1 from APPENDIX 8: Preliminary Engineering Repot North Fiesta Island Wetland Restoration, 5.1.2 Material Disposal/Re-use Options (page 33-35) below.

Annotations on M8PIP EIR/WBS# 8-18079 12

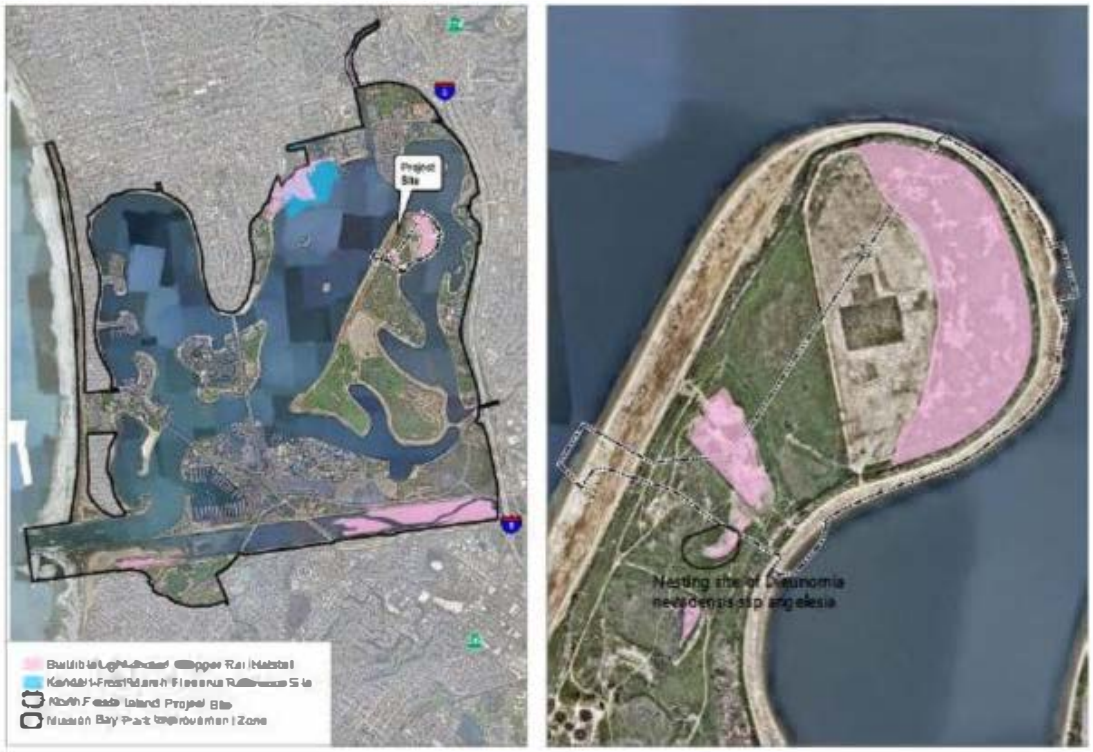


Figure 11 (page 107)

CalNBS COMMENT: Light-footed Clapper Rail habitat overlaps nesting aggregation (see black circle). Do not flood.

Annotations on MBPIP EIR/WBS# B-18079 **13**

APPENDIX B: Preliminary Engineering Report North Fiesta Island Wetland Restoration

5.1.2 Material Disposal/Reuse Options (page 33-35)

"Construction of the Least Tern Preserve and North Fiesta Island Wetland Restoration could occur as a single event, or they could be constructed as separate events with different construction schedules. Either way, efficiency can be maximized by allowing stockpiling of the excavated surplus soils on Fiesta Island at one or more locations nearest to the excavation area. The three potential stockpile areas identified for the project are shown in Figure 5-1 below. The sites are near the restoration work area and include:

- Site #1 – the kelp drying and sand processing area adjacent to the restoration site. This is a 15.9-acre area just south of the proposed wetland restoration area at North Fiesta Island.
- Site #2 – the stockpile area near Tecolote Creek at the end of Fiesta Island Road causeway. This area is 17.4 acres.
- Site #3 – the Over-the-Line tournament area at the center of North Fiesta Island. This area is 29.3 acre"

Figure 5-1. Fiesta Island Surplus Soil Stockpile Sites

"The stockpiled soil material can be beneficially re-used in restoring other wetland sites that need the soils, such as Tecolote Creek wetlands and Cudahy wetland. Earthmoving equipment would be able to efficiently remove material from the wetland site, transport it the relatively short distance to the stockpile site and return for another load. This is the lowest cost option for material disposal/re-use. Trucks may be required for longer distances."

"Retaining the material in the stockpile areas within Mission Bay would also be prudent so that the surplus soils could be re-used beneficially later as an adaptation strategy for SLR. Some sites within the Mission Bay Master Plan area are relatively low lying and may need to be raised or bermed in the future to prevent or manage flooding."

CalNBS COMMENT: Stockpiling soil material at Site #1 would likely decimate this population of *Dieunomia nevadensis* ssp. *angelesia*. We would like the city to consider stockpiling the soil only at Sites #2 and/or #3 instead. Also, the temporary construction road (see yellow dotted line in Figure S-1 above) comes very close to the nest aggregation; we suggest moving it further west to avoid impacts to the nesting site.

5.2.5 Environmental Windows (page 40)

"Potential nearby special-status wildlife species include the endangered California least tern (*Sternula (Sterna) antillarum browni*) and threatened western snowy plover (*Charadrius alexandrinusnivosus*). Environmental constraints of threatened and endangered bird nesting seasons require that certain elements of the overall project construction be phased or timed. This "project schedule" is an important part of the permits, and engineering contract documents (plans, specifications, and estimates for contractor bidding), as well as assurances to the resource agencies that the Project will be implemented without incurring unanticipated incidental impacts. The project is based on assuming breeding restrictions limit construction from September 1st to February 15th. If this window can be extended, construction can be completed in a shorter timeframe and accommodate contingency actions if they became necessary."

CalNBS COMMENT: *Dieunomia nevadensis* ssp. *angelesia* are most actively flying, foraging, mating, and nesting during September through October; therefore, we would like the city to consider avoiding this site during those months if at all possible.

A: Preliminary Drawings (page 67)

CalNBS COMMENT: The nesting area (see circle in map above) is very close to the new road. We suggest that the road be rerouted to avoid the nesting aggregation.

The emails below are communications from Bonnie Nickel to Sara Allen of SD Dept. of Parks and Rec. and Cristina Santamaria (Conservation Manager, SD Bird Alliance):

Email from Bonnie Nickel to Sara Allen (MSCP Biologist, SD, Parks and Rec. Dept., Open Space Division) dated 9/19/23

Hello again, Sara,

Now that the Menzies' Goldenbush (*Isocomo menziesii*) is in bloom again in San Diego, including on Fiesta Island, I decided to return to the areas where I found the *Dieunomia nevodensis* ssp. *angelesia* bees last fall. The next generation of this species has indeed hatched out and are busily foraging on the Goldenbush as well as the Telegraph Weed (*Heterotheca grandiflora*). Yesterday I found that the nesting areas in the salt pans at the south end of FI are active with males flying over the females' nest holes.

Last year I couldn't find where the population at the north end of FI was nesting. Today I hit the jackpot: a huge area with an extensive salt pan with thousands of male bees trolling for females just above the surface of the soil. It was magnificent to behold! I would like to show you and your other colleagues this spot, soon if you have the time available. Here is a link to my iNaturalist observation so that you can see the location: https://www.inaturalist.org/observations/184049427. It is my hope that these nesting sites can be protected somehow, given the plans for development on Fiesta Island.

Hope this past year has treated you well.

Best regards, Bonnie Nickel

Email (excerpt) from Bonnie Nickel to Sara Allen (MSCP Biologist, SD, Parks and Rec. Dept., Open Space Division) & Cristina Santamaria (Conservation Mgr., SD Bird Alliance) dated 9/26/23

Hi Sara & Cristina,

It was a pleasure meeting you and all your interns today, Sara, with a special bonus of Cristina from Audubon. I hope that all of you found the visit to the nesting site as fascinating as I do. It is my immediate hope that we can keep the public from doing any more damage to the site while the bees are actively nesting there and during the rest of the year when their offspring are developing underground. Using your combined authority as representatives of SD City and SD Audubon, I hope you can come up with a plan to protect this site. ...

Best regards, Bonnie

Email (excerpt) from Bonnie Nickel to Sara Allen (MSCP Biologist, City of San Diego, Parks and Recreation Department, Open Space Division) and Cristina Santamaria (Conservation Manager, San Diego Bird Alliance) dated 10/25/23

Hi Cristina & Sara,

I have been back to the nesting site a number of times since we met there last month, including meeting with Krystle Hickman (AKA @beesIp), the professional bee photographer who contacted me wanting to photograph the bees there.

Currently, the activity is way down as their season comes to a close, but there are still females actively provisioning their nests and a few mates still trolling the females hoping to mate. With the *Isocoma menziesii* past its peak, the bees are now adding *Baccharis* to their diet. Krystle and I learned that the females close up their nest entrances overnight and open them again in mid-morning. We also managed to photograph a cluster of males sleeping on a dead *Glebionis coronaria* flower before they woke up in the morning (See https://www.inaturalist.org/observations/187704472). ...

Thanks again for meeting with me there that day. I'm glad you all got to see this place in person.

Bonnie

Responses to Comment Letter B

All lighting would comply with the Parks and Recreation Department's Park Design Manual (formerly Consultant's Guide to Park Design and Development); the City's SMART City program, as identified in City Charter Section 55.2(c)(1)(E); and when adjacent to the Multi-Habitat Planning Area (MHPA), with the Multiple Species Conservation Program (MSCP) Land Use Adjacency Guidelines (LUAG).

Response to comment B-1: This comment provides an introduction to the California Native Bee Society interest and specifically background on the presence of a native bee (*Dieunomia nevadensis* ssp. *angelesia*) on Fiesta Island that may be affected by the Program components on North Fiesta Island. As noted in the comment, *Dieunomia nevadensis* ssp. *angelesia* specifically is not listed under the California Endangered Species Act or the federal Endangered Species Act, and is not designated by the California Department of Fish and Wildlife (CDFW) as a Species of Special Concern or Fully Protected species. Additionally, the species has no NatureServe state rank in California (SNR) and a Global Rank of G5 (Secure) for the species as a whole, reflecting a widespread, stable taxon with no documented range-wide decline. As such, the analysis in the EIR of impacts to sensitive biological species is adequate and no further response is necessary.

Response to comment B-2: This comment offers six modifications to the Program to preserve the native bee species. This comment does not concern adequacy of the Draft EIR, and no further response is required.

Response to comment B-3: This comment refers to the following pages providing information on the native bee including maps, references, and communications of such with the City. This comment and referred to materials are noted; while some are directed at text in the EIR, they do not concern adequacy of the Draft EIR. These comments will be shared with the decision makers. Please also response to comments B-1 and J-3.

Comment Letter C

Kennedy, Jamie

Subject: CDFW Comment on Mission Bay Park Improvements Program

From: Hart, Leslie@Wildlife <Leslie.Hart@Wildlife.ca.gov>
Sent: Friday, January 30, 2026 2:32 PM
To: Graham, Nancy <nhgraham@sandiego.gov>
Cc: Matthew Valerio <mvalerio@dudek.com>; Wilkins, Eric@Wildlife <Eric.Wilkins@wildlife.ca.gov>; Fisher, Kelly@Wildlife <Kelly.Fisher@wildlife.ca.gov>
Subject: CDFW Comment on Mission Bay Park Improvements Program

Good afternoon Ms. Graham,

The California Department of Fish and Wildlife (Department) has reviewed the City of San Diego's (City) Draft Environmental Impact Report (DEIR) Environmental Assessment (SCH #2024100048) for the Mission Bay Park Improvements Program (Project). The Department offers the following comments and recommendations regarding the Project.

The DEIR's Mission Bay Park Eelgrass Conceptual Habitat Restoration and Monitoring Plan (Appendix K5) states that a "letter of permission" to collect and transplant eelgrass would be secured from the Department before eelgrass transplantation commences. The Department would like to clarify that if eelgrass harvest and transplanting is required for mitigation, a Scientific Collecting Permit (SCP) from the Department will be required prior to harvest and transplanting activities. The Department recommends that the DEIR should be revised to state that an SCP is required prior to eelgrass harvest and transplanting activities as opposed to a letter of permission. The SCP may include permit conditions such as donor eelgrass surveys, submittal of an eelgrass harvest and transplant plan, limits on number of turions collected, methods for collection and transplanting, notification of activities, and reporting requirements. Please visit the Department's SCP webpage for more information: https://wildlife.ca.gov/Licensing/Scientific-Collecting.

C-1

The Department appreciates the opportunity to submit comments to the City regarding the Project. Please contact me with any questions.

Sincerely,
Leslie

Leslie Hart
Environmental Scientist
California Department of Fish and Wildlife
Marine Region - Environmental Review and Water Quality Project
3030 Old Ranch Parkway, Suite 400, Seal Beach, CA 90740
Leslie.Hart@wildlife.ca.gov
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Responses to Comment Letter C

C-1 This comment requests that the EIR Appendix K5 be corrected to reference a "Scientific Collection Permit" rather than a Letter of Permission would be needed from the CFDW for eelgrass mitigation. The City has revised the reference in the Final EIR referenced Appendix K5 Mission Bay Park Eelgrass Conceptual Habitat Restoration and Monitoring Plan (CHRMP).

Comment Letter D

Friends of Rose Creek
"Connecting Our Communities"
4629 Cass Street #188
San Diego CA 92109

February 1, 2026

Via email transmission: *mbpeir@sandiego.gov*
CIP-CEQA@sandiego.gov

Engineering & Capital Projects Department (E&CP)
City of San Diego
8525 Gibbs Dr., Suite 302
MS# 912
San Diego, CA 92123

RE: Mission Bay Park Improvements Program EIR/WBS# B-18079

Dear City Staff,

The Friends of Rose Creek is a community group caring for the section of Rose Creek between Marian Bear and Mission Bay Parks. Our vision is for lower Rose Creek to be an open space park providing recreational and learning opportunities and a clean, healthy, aesthetically pleasing environment for residents, visitors, businesses, and native plants and animals, while serving as an accessible link for bicyclists, pedestrians, and wildlife to move between Rose Canyon Park, Marian Bear Park, Mission Bay Park, and surrounding communities.

The Friends of Rose Creek have been involved in this project since its public unveiling in the spring of 2018 and in most ongoing projects along Rose Creek since 2004. While we understand that this document references Preliminary Engineering Reports (PER) that were prepared up to 30% complete design for each of these location-specific elements (Executive Summary ES-3), we still have significant concerns about negative impacts to the Rose Creek MHPA and to the negative impacts to the residential communities along the Rose Creek Bike Path upstream of Grand Avenue by removing vegetation that shades the area and makes the experience of walking and or biking here enjoyable, especially in the summer months. D-1

We appreciate that you called out Rose Creek in Areas of Controversy (Executive Summary Page ES-5). We still have concerns that future EIRs will not be required for general development plans and that the public will not have the opportunity to provide feedback on the city's analysis of negative and positive impacts in the area. Overall, we feel that the City of San Diego is once again destroying Rose Creek for transportation projects and exporting our habitat to other parts of the city while degrading our local community.

We feel that due to the length of time this project has been underway, many of the assumptions of the project and the on-the-ground conditions referenced in the PEIR have changed in the Northeast corner of Mission Bay and this document does not always accurately reflect these

issues. This makes it very hard for the public to respond to the Mission Bay Draft PEIR and understand what exactly it is trying to analyze in this area.

Furthermore, it is unclear if the Mission Bay PEIR or the De Anza Natural PEIR/Plan and subsequent General Development Plans will be used for the restoration of the Rose Creek Wetlands, portions of the Rose Creek Bike Path, the De Anza Point Wetlands, and nature-based erosion control for shorelines in this area. In some sections the Mission Bay PEIR provides conflicting plans for the areas downstream of Grand Avenue in the Northeast corner of Mission Bay while in other sections it mentions that areas covered by the De Anza Natural Plan are excluded from the Mission Bay Draft PEIR.

We now have information from the City of San Diego on what the De Anza Natural Plan proposes to do in the area and conflicting information on what the Mission Bay PEIR plans to do. If the Mission Bay PEIR is attempting to reference elements in the De Anza Natural Plan PEIR, then this should be explicitly stated and should match. If the Rose Creek Wetlands and De Anza area are being removed from the De Anza Natural Plan and incorporated into the Mission Bay PEIR, then this should be explicitly stated. If references in this document to improvements covered by the De Anza Natural are out of scope, then they should be removed from this document for clarity and consistency with CEQA.

D-Intro

As this was a massive undertaking and done so by disparate teams, making comments on specific points within this will be a very verbose undertaken. For example, when a table covers 6 or 7 pages and each row or specific item is not numbered, the only way we can comment on a specific point is to reference the table and then include the full paragraphs upon which we are commenting. However, we will number our comments for future reference. Our specific comments on the Mission Bay Draft PEIR are included in table format below for ease of referencing in a response to our comments in the Final PEIR.

Overall, we support the ES.6.3 Reduced Hardscape Alternative as the best balance between improvements and the no build alternative. We are also very supportive of the incorporation of Coastal Dunes habitat in this alternative.

Please see more detailed comments in the table below.

Friends of Rose Creek comments on Mission Bay PEIR 2/1/26 (continued) *Page 3 of 11*

Comment #	Section (i.e. Specific Appendix or main document)	Specific reference	Comment
1.	Exclusion from the MB PEIR.		The Draft PEIR does not provide an analysis of cumulative impacts to the Rose Creek MHPA. Specifically it has not identified additional impacts from the Balboa Avenue Station Area Specific Plan, which increased usage of the Bike Path as a safe access to Balboa Avenue Trolley Station, or the increased density for the surrounding area including the Rose Creek Village project currently under construction at the north east corner of the creek and Gamet Ave, the proposed 130 Unit Pacilica Drive and Bluffside Avenue high density project, and zoning density increases between Rose Creek and Interstate-5, all of which include increases in bike and pedestrian usage, more dog walking and subsequent dog feces and other recreational uses by a larger residential population as well as the trolley station traffic. As the Balboa Avenue Station Area Specific Plan refused to study the impacts to the MHPA, widening the Rose Creek Bike Path will only increase usage and the additional traffic on the Bike Path and the impacts to the MHPA should have been studied. The De Anza Natural Plan did not study the cumulative impacts to the Rose Creek MHPA area and additional habitats along this section of the creek. Therefore, there are at least 5 or 6 identified projects that will increase usage of the area. Whose responsibility is it to study the cumulative impacts? Also omitted from Cumulative Impacts required under CEQA is that City of San Diego's Climate Action Plan and Bike Master plan Therefore, the document is deficient as is does not study cumulative impacts of the proposed Project considered together with other past, present, and probable future projects producing related impacts, as required by Section 15130 of the CEQA Guidelines be excluding from analysis impacts from the City of San Diego's Climate Action Plan and the Balboa Avenue Station Area Specific Plan. Furthermore, the De Anza Natural PEIR did not include the area of Rose Creek upstream of Grand Avenue either. How will the impacts to the Rose Creek MHPA be fully analyzed as part of a General Development Plan for the widening of the Rose Creek Bike Path upstream of Grand Avenue?
2.	Executive Summary Section 4.3	Upland Habitat and Preserver Expansion Element on page 24 of PDF	No additional upland habitat is proposed for Rose Creek upstream of Grand Avenue. Living retaining walls could be utilized to provide additional upland habitat from the Coastal Sage Scrub community

Comment #	Section (i.e. Specific Appendix or main document)	Specific reference	Comment
3.	Appendix M STR Table 4-1. Consistency with MSCP SAP General Planning and Policies Section 1.4.2 (pages 100-107).		Despite numerous statements in the MHPA Adjacency Guidelines to avoid edge effects, the project as proposed for the Rose Creek Bike Path will remove native and non-native upland habitat along the bike path. Plans to build a concrete retaining wall are in direct conflict with the MHPA Adjacency Guidelines. How can the City of San Diego utilize Living Retaining Wall structures to incorporate Coastal Sage Scrub habitat to help reduce urban runoff and air pollutions, create additional upland habitat, and create a natural appearing transition between the Bike Path and the wetlands? How will the proposed widening of the Rose Creek Bike Path avoid edge effects to the MHPA and other critical habitat in the area?
4.	Appendix M BTR Table 4-1. Consistency with MSCP SAP General Planning and Policies Section 1.4.2 (pages 100-107).	In the row starting with "No riprap, concrete, or other unnatural material shall be used to stabilize river, creek, tributary, and channel banks within the MHPA. River, stream, and channel banks shall be natural."	Rose Creek was omitted from this MSCP guideline. How will the widening of the Rose Creek Bike Path upstream of Grand Avenue be consistent with MHPA adjacency guidelines?

Friends of Rose Creek comments on Mission Bay PEIR 2/1/26 (continued) *Page 5 of 12*

Comment #	Section (i.e. Specific Appendix or main document)	Specific reference	Comment
5.	Appendix M BTR Table 4-1. Consistency with MSCP SAP General Planning and Policies Section 1.4.2 (pages 100-107).	In the subsection on "Flood Control"	Rose Creek was omitted from the subsection on "Flood Control." The City of San Diego's Stormwater Department relies heavily on Rose Creek to move stormwater runoff from surrounding urban areas into Mission Bay. How will impacts to the Rose Creek's flood control functions be analyzed in lieu of plans to build a retaining wall, which will change the movement of water through the channel?
6.	Appendix M BTR Table 4-1. Consistency with MSCP SAP General Planning and Policies Section 1.4.2 (pages 100-107).	The first Row under "Fencing, Light and Storage."	Natural rocks and boulders on top of the existing Rip Rap would be appropriate along the Rose Creek Bike path, but would reduce dog walking areas that are heavily used by the community and therefore reduce recreational opportunities in the area. As things currently exist, many community members use the salt marsh banks for fishing, dog walking, and other recreational activities to the detriment of the vegetation. How will the widening of the Rose Creek Bike path protect sensitive salt marsh and riparian habitat without fencing the area off from the public?
7.	Appendix M BTR Table 4-1. Consistency with MSCP SAP General Planning and Policies Section 1.4.2 (pages 100-107).	In the Row "All new development for utilities and facilities within or crossing the MHPA shall be planned, designed, located, and constructed to minimize environmental impacts."	This guideline is in direct conflict with the proposed plan of a retaining wall and widening of the Rose Creek Bike Path. While we understand the City of San Diego has multi-use path guidelines in effect now that were not in effect in the 1960s when this bike path was built, the on-the-ground conditions must be analyzed. Furthermore, the Rose Creek Lower Salt Marsh (downstream of Grand Avenue) has naturally occurring salt marsh. Salt marsh habitat is an effective filtration system. Because approximately 90% of California's salt marshes have been destroyed, exporting naturally occurring salt marsh to another part of San Diego County would be expensive and counter productive to the goal of increasing salt marsh habitat in the northeast corner of Mission Bay. Therefore, the recommendation to build a bio-filtration basin in this area should be removed from the proposed project. Furthermore, the area downstream of Grand Avenue is included in the De Anza Natural Plan and it is not clear if the preliminary designs contained in that project are to be superseded by this project or vice versa. How is the public to understand the proposed project if it is not clear which of the two projects in the area take precedence and if the same spots are included in both plans but with significantly different proposed designs?

Comment #	Section (i.e. Specific Appendix or main document)	Specific reference	Comment
8.	Draft PEIR	3.5 History of Project: Changes on page 3-50	Rose Creek upstream of Grand Avenue was not included in the De Anza Natural PEIR. Only the lower Rose Creek Salt Marsh (downstream of Grand Avenue) was included in the De Anza Natural PEIR as the original version of the Mission Bay PEIR included Rose Creek upstream of Grand Avenue and within the Improvement Fund Zone. This creates a deficiency in completing an EIR for impacts to the MHPA lands of the upper Rose Creek Salt Marsh (between Grand and Garnet Avenues) as well as the fresh water riparian habitat between Garnet Avenue and Mission Bay Drive. Therefore, due to the proximity of the proposed Rose Creek Bike Path improvements upstream of Grand Avenue, there is currently no full environmental analysis of impacts from the Rose Creek Bike Path widening or potential lighting system to the Rose Creek MHPA. At what point will a full EIR of the impacts to the Rose Creek MHPA upstream of Grand Avenue be completed?
9.		7.2.4 "These improvements would serve the existing population and are not intended to bring in additional visitors."	This statement directly contracts the City of San Diego's Climate Action Plan and the Bicycle Master Plan. Widening and improvements to bike paths are part of the City of San Diego's Climate Action Plan and are intended to increase bicycle ridership. See https://www.sandiego.gov/planning/work/working-on/cap The Climate Action Plan commits to achieving a commuter mode share of 18 percent for bicycle trips and seven percent for pedestrian trips in transit priority areas by 2035. The communities to the east and southeast of the Rose Creek Improvement Fund Zone are within a transit priority zone and the existing Rose Creek Bike Path was included in the mobility component of the Balboa Avenue Stations Area Specific Plan. Existing ridership is significantly below these levels per City of San Diego | Bicycle Master Plan Alta Planning + Design | 89 Table 5-12: Adjusted Estimates of Current Bicycle Commute and Air Quality Benefits from https://www.sandiego.gov/sites/default/files/legacy/planning/programs/transportation/mobility/pdf/bicycle_master_plan_final_dec_2013.pdf Therefore, the PEIR is deficient in not study cumulative impacts of the proposed Project considered together with other past, present, and planned future projects producing related impacts, as required by Section 15130 of the CEQA Guidelines including but not limited to the City of San Diego's Climate Action Plan and the Balboa Avenue Station Area Specific Plan. The Mission Bay Draft PEIR falsely claims that the intent is not to usage of the Rose Creek Bike Path. Give the City of San Diego's multiple projects to increase riders, under CEQA it is necessary to analyze the cumulative impacts. How you can ensure the widened bike path will not bring in additional visitors when the Climate Action Plan, the Bicycle Master Plan, and the Balboa Avenue Station Area Specific Plan's allowable increased density are pushing bicyclists and pedestrians to use this area?

Friends of Rose Creek comments on Mission Bay PEIR 2/1/26 (continued) *Page 7 of 12*

Comment #	Section (i.e. Specific Appendix or main document)	Specific reference	Comment
10.	Consistency with the De Anza Natural PEIR through the entire PEIR.		There are many conflicts between the Mission Bay PEIR and the De Anza Natural PEIR, which is currently awaiting Coastal Commission Approval. Specific conflicts include but are not limited to: "The proposed amendment aims to expand the park's natural habitat and improve water quality through the creation of additional wetlands while implementing nature-based solutions to protect against the risk of climate change, in line with the Climate Resilient SD plan." Page 1 of the final PEIR. "Many existing recreational opportunities would be retained, however, the current site of the Mission Bay Boat and Ski Club would be replaced with a widened Rose Creek inlet, wetlands, and buffers adjacent to the creek." De Anza Natural Biological Resources Technical Report 4 November 2023 and De Anza Natural Amendment to the Mission Bay Park Master Plan 2.2.3.5 Water Quality Design Features "As a further water quality-enhancing feature, the edges of Rose Creek and along the "boot" of De Anza Cove are proposed to be revegetated with marsh, wetland, and upland native plants. In addition, "green" infrastructure such as constructed oyster beds would be implemented at shorelines where oyster colonization is feasible." (Page 6) How will the Mission Bay Draft PEIR be updated to correctly reflect areas in and out of scope for this project? Will the Mission Bay Draft PEIR be recirculated once it is updated to correctly identify projects within scope in order the public to adequately comments on the PEIR?
11.	Appendix E	Entire Appendix	Appendix E references projects that include wetlands restoration in Rose Creek, the area between Rose Creek and Campland-on-the-Bay as well as the De Anza Point, boot, and cove. All these areas are included in the De Anza Natural Plan. As there seems to be conflicting information in this and other sections of the Mission Bay PEIR with the De Anza Natural Plan, the document fails to correctly identify projects in the Mission Bay Draft PEIR. How will the Mission Bay PEIR be updated to correctly reflect areas in and out of scope for this project? Will the Draft PEIR be recirculated for comments once the projects in the northeast corner are clearly identified?
12. De	Appendix E	Section 5.1.3.8 on page 54	This section references work to be done on the Rose Creek Wetlands and De Anza Point. This bring up two questions: 1) Is the Rose Creek Wetlands included in the Mission Bay PEIR or not? 2) De Anza Point is part of the De Anza Natural Plan. As stated in the Executive Summary, the Mission Bay PEIR is excluding areas covered by the De Anza Natural PEIR. Therefore, this is a muddle mess as the projects seem to be in direct conflict to one another. There is no need to restore the shoreline of De Anza Point just to redo it as is mentioned in the De Anza Natural PEIR. As to the Rose Creek Wetlands, the area upstream of Grand Avenue was not included in the De Anza Natural PEIR and therefore no EIR or PEIR exists for critical wetlands habitat in the MHPA. As these two areas were included in the De Anza Natural Plan, please explain why it is also included in this plan?
13.	Appendix E	Section 5.1.3.8 on page 55	Again, this section subtitled "De Anza Cove" is followed by a plan to extend the beach 200 feet into the bay. As this area was included in the De Anza Natural Plan, please explain why it is also included in this plan? The proposed project in this plan directly conflicts with the De Anza Natural Plan. Will the project as proposed in De Anza Natural take precedence over the Mission Bay PEIR or does the Mission Bay PEIR take precedence over the De Anza Natural Plan?

Friends of Rose Creek comments on Mission Bay PEIR 2/1/26 (continued) *Page 8 of 12*

Comment #	Section (i.e. Specific Appendix or main document)	Specific reference	Comment
14.	Appendix E	Table 5-1. Beach Sample Size Analyses on page 56	This table includes references to De Anza Point. Why are the only soil samples from this area. As this area was included in the De Anza Natural Plan, please explain why it is also included in this plan? How are the soil samples from De Anza Point relevant to proposed projects within this plan that are not in the north east corner of Mission Bay? For example, where is that analysis that shows the Beach Sample Size at De Anza Point is nearly identical to that of Tecolote or Crown Point Shores?
15.	Appendix E	5.2.5 Environmental Windows on page 53	The document states that "the De Anza Point project area is approximately 1,400 linear feet from the Kendall-Frost Marsh Reserve." First off, Campland-on-the-Bay is currently in-between these two locations. As the De Anza Point project area was included in the De Anza Natural Plan, please explain why it is also included in this plan?
16.	Appendix E	5.2.6 Water Quality Concern on page 59	Just before section 5.2.7 the document references shoreline improvements at De Anza Point. Please update the document to reflect if the Mission Bay PEIR or the De Anza Natural PEIR is considered the planning document?
17.	Appendix E	5.2.8 Sensitive Habitat	Page 60 references the Rose Creek Wetlands Restoration as well as the De Anza Point Wetlands Restoration. If this is a separate undertaking from the De Anza Natural Plan, please clarify? Are the De Anza Point Wetlands are part of the De Anza Natural Plan or the Mission Bay PEIR? All the proposed projects in this area conflict with the De Anza Natural Plan. Will the Mission Bay Draft PEIR be updated and recirculated for public comment once the plan correctly identifies projects in the north east corner of Mission Bay?
18.	Appendix E	Table 5-2. Approximate Potential Eelgrass Impact on page 60	See previous comment.
19.	Appendix G	4.1.2 Vertical Clearance	The project fails to address sea-level rise in the proposal to lower the undercrossing of the Rose Creek Bike Path under Grand and Garnet Avenues. At the current level of the undercrossing, and the City of San Diego's proposed sea-level rise modeling, even at the more conservative projections of 3.6 feet of sea-level rise above NGVD 29, the existing level of the bike path will be underwater at highest tides let alone a lowered bike path. How will be bike path remain above water by 2100 based on conservative and significant sea-level rise modeling?
20.	Appendix G	4.1.6 Design Standards	The project fails to address ADA access in the proposal to lower the undercrossing of the Rose Creek Bike Path under Grand and Garnet Avenues as the current undercrossing slopes exceed a 1-foot rise in 12 feet of horizontal run. How will the project create ADA compliant access under Grand Avenue?
21.	Appendix G	4.1.5 City Standard Drawing C-09	Will the proposed gravity retaining wall be placed on private property or will it necessitate shifting the bike path to the West and Northwest to accommodate the proposed concrete footprint?

Friends of Rose Creek comments on Mission Bay PEIR 2/1/26 (continued) *Page 9 of 12*

Comment #	Section (i.e. Specific Appendix or main document)	Specific reference	Comment
22.	Appendix G	4.1.6 Design Standards	ADA standards. The "Rose Creek Bikeway" which is called out here as the "Rose Canyon Bikeway" was completed in 2023 and has been in use since then. No mention is made of the grades on the Rose Creek Bike Path going under Grand Avenue which currently exceed the ADA maximum slope be 1:12. How will ADA compliance be addressed in this area?
23.	Appendix G	4.1.6 Design Standards	The Rose Creek Bike Path project fails to address curbs cuts for bicyclists entering and exiting the bike path at Grand and Garnet Avenues. How will the widened bike path be accessible for bicyclists entering the bike path from Grand and Garnet Avenues?
24.	Appendix K: Implementation Framework	Rose Creek Bike Path: A gravity retaining wall (City Standard Drawing G-09) on Page 116	The Draft PEIR does not identify if the eastern edge refers to the eastern edge of the Bike Path or the eastern edge of the wetlands. If the latter, we are very much opposed to a solid concrete wall as this will remove critical upland habitat. However, if the City is going to force that on the community, we strongly recommend this if the proposed retaining wall is to the east of the wetlands and the west of the bike path, that a living wall be used with appropriate plants from the Coastal Sage Scrub community to maintain upland habitat value in this area.
25.	Appendix K: Implementation Framework	Page 108	Please ensure that lighting is low-level and a color-correlated temperature below 2200 kelvin. All lighting adjacent to MHPA should be low vertical lighting no more than 2 feet off the ground to focus lighting on paths and not adjacent habitat with an acceptable wavelength of 500 nm or higher. For pole mounted lighting, a shield must be required to limit light pollution to the path itself. How will the City of San Diego address light pollution in the MHPA from private property in the area?
26.	Appendix E	Table 5.3 on page 62	There are several sea-level rise projections that are based on Spring Neap tides from 2011 as being insufficient to capture conditions on the ground. While the bike path itself is sufficiently high to account for conservative estimates of sea-level rise projects by 2100 the mean high water will be 5.88, and the mean-higher high will be 6.60. Therefore, the Rose Creek Bike Path undercrossing at Grand Avenue will be approximately 4-6 inches above the tide at its current levels. If the bike path is lowered under Grand Avenue, then the path will experience flooding on an almost daily basis. The projects contained here do not align with Table 4.1 in Appendix T
27.	Appendix T	Appendix T Table 4-1 on page 14	Modeling was not done based on the Rose Creek Bike Path undercrossings nor did the sea-level rise analysis incorporate the Mean High Water which you have modeled to be + 2.47 and +2.28. The projections contained here do not align with the projects in Table 5.3 in Appendix E.
28.	PEIR, section 3.3.4	Page 3-39	The document states "Retaining walls or concrete barriers are not proposed for the Ocean Beach Bike Path and the Rose Creek Bike Path improvements. However, retaining walls may be required for the Rose Creek Bike Path pending further geotechnical retaining wall and allowable fill slope requirements adjacent to Rose Creek." These two sentences contradict each other and hence it is impossible for a reader to determine the intent. How is the public to understand the proposed project when the text of the Mission Bay PEIR seems to contradict itself?
29.	PEIR, section 3.3.4	Figure 3-21 on page 3-53	The figure represents existing conditions and not the proposed alignment from the De Anza Natural Plan as does the description on Page 3-39 in section 3.3.5. With which proposed plan is the City of San Diego moving forward: De Anza Natural or Mission Bay PEIR? Will the Mission Bay Draft PEIR be updated and recirculated for public comment once the plan correctly identifies projects in the north east corner of Mission Bay?

Friends of Rose Creek comments on Mission Bay PEIR 2/1/26 (continued) *Page 10 of 12*

Comment #	Section (i.e. Specific Appendix or main document)	Specific reference	Comment
30.	PEIR, Section 4.2	Table 4.2-34 Wetland Vegetation Community and Land Cover Impacts at the Rose Creek Bike Path Component Vegetation Communities and Land Cover Types	The table is hard to understand as portions of this work was done for the entire Rose Creek Bike Path. As mentioned previously the Mission Bay Draft PEIR fails to account for the De Anza Natural Plan. Is this analysis only for the section of the Rose Creek Bike Path upstream of Grand Avenue or does it include the stretch below Rose Creek as well, which is referenced elsewhere? Deficiencies in this plan: Failure to sufficiently account for native plants outside the MHPA such as 60-year-old Lemonade berry, Sugar Bush, and Western Sycamore on the eastern edge of the existing Bike Path between Grand and Garnet Avenues. What methodology was used for breaking up the non-native vegetation (i.e. the Pampas Grass, Castor Bean, Brazilian Pepper, Mexican Fan Palm) from the native habitat is unclear as in the Disturbed Southern Willow Riparian area, site specific natives and invasive non-natives are intertwined? To the best of our knowledge and on-the-ground observation over 20 years, there is no concrete bottom channel within the portion of Rose Creek that is part of the Mission Bay Park Improvement Zone. There is a concrete channel just downstream and upstream of Mission Bay Drive, which is outside of the Improvement Zone and hence is not part of this project. There is a concrete on the sides of the channel just upstream and downstream of Grand Avenue, but the bottom of the channel is rip-rap and earthen bottom. Please identify the specific locations to allow the community effectively comment on the plans.
31.	PEIR	Table 4.2-37 Item MM-BIO-2	This item states that: Habitat-Based Mitigation. Habitat-based mitigation would be required for direct impacts to wetlands (see MM-BIO-2A) or sensitive uplands (see MM-BIO-2B). Please identify where in the Rose Creek MHPA mitigation will be done for negative impacts to the Rose Creek MHPA. How will mitigation sites be determined? Will the public have input and opportunities to collaborate on on-site mitigation.
32.	PEIR	Table 4.2-37 Items MM-BIO-2 EP-BIO-1, EP-LU-1, MM-BIO-2A, MM-BIO-2B, MM-BIO-3, and MM-BIO-8 (same as above) Significant and Unavoidable	Identifies multiple impacts that are significant and unavoidable but fails to identify the Rose Creek MHPA from these impacts and provide alternative design methods to mitigate these impacts in the Rose Creek MHPA where there are extensive mitigation opportunities.

Friends of Rose Creek comments on Mission Bay PEIR 2/1/26 (continued) *Page 11 of 12*

Comment #	Section (i.e. Specific Appendix or main document)	Specific reference	Comment
33.	Executive Summary	ES-59	Yes, the building of retaining walls along the Rose Creek Bike Path would results in substantial alteration to on- and off-site drainage patterns due to changes in runoff flow rates or volumes. The Friends of Rose Creek disagree strongly would your findings.
34.	Executive Summary	ES-62	The project as proposed conflicts with multiple provisions of the City's Multiple Species Conservation Program (MSCP) Subarea Plan or other approved local, regional, or state habitat conservation plan. How will be plan be redesigned to avoid these conflicts?
35.	PEIR	Page 3-26	Proposed de-watering. How will de-watering of Rose Creek negatively impact riparian and salt marsh vegetation and wildlife as well as salt plan/mud flat wildlife include microorganisms?

We strongly advise the City of San Diego to correct the many deficiencies in this document related to the Northeast corner of Mission Bay and recirculate the draft for public comment due to the lack of delineating which projects are part of this plan and which are part of the De Anza Natural Plan.

On behalf of the Friends of Rose Creek.

Karin Zirk, Ph.D. (she/her/hers)
Executive Director
Friends of Rose Creek
SaveRoseCreek.org

Responses to Comment Letter D

D-Intro: The comment introduces the Friends of Rose Creek and history of the organization. The comment summarizes general concerns surrounding Rose Creek and the De Anza Natural Plan, detailed further in a table attached. Responses to each row of the table have been provided below.

D-1: The comment states that cumulative impacts to the Rose Creek MHPA are not addressed. Table 4.2-34 identifies the direct impacts inside and outside of the MHPA from the Rose Creek Bike Path, and each component has similar tables within Section 4.2, Biological Resources, of the PEIR, with further discussion provided under Issue 5, and detailed in the Biological Resources Technical Report provided as Appendix M to the PEIR. Cumulative impacts are addressed in Section 5 of the PEIR, specifically for Biological Resources in subsection 5.1.2. Biological Resources evaluation concludes that the Program would be consistent with the MHPA implementing Environmental Protocols and mitigation measures as well as compliance with the City's Biology Guidelines, Mission Bay Natural Resources Management Plan, the MSCP Subarea Plan (SAP), and Vernal Pool Habitat Conservation Plan, which collectively are intended to manage and avoid effects from activities from collective sources to the sensitive biological resources protected therein and are inherently addressing cumulative effects. The Cumulative Section identifies that the Program would result in significant impacts to biological resources, is consistent with the Blueprint SD Initiative General Plan and the findings of the City's Blueprint SD Initiative General Plan PEIR, and as such those impacts do not need to be analyzed further. The Blueprint SD Initiative PEIR and/or implementation thereof applied to the projects and plans listed by the commentor, addresses their cumulative effects collectively. The Program is consistent with MSCP and other land use plans, including the MHPA SAP. As such, the cumulative biological resources' impacts are determined to not be cumulatively considerable. In response to this comment, the City takes this opportunity to clarify statements in the Cumulative Section subsection 5.1.2 Biological Resources, as follows:

> "As analyzed in Section 4.2, the Program would result in potentially significant impacts to biological resources that would be reduced to a less-than-significant level with implementation of **MM-BIO-1** through **MM-BIO-8**. The Program would provide a net benefit to the vegetation communities in the Improvement Zone by conversion of existing disturbed areas or open water to high-functioning native habitats or enhancement of habitat through the removal and control of invasive species. These restoration areas may be credited as mitigation to offset permanent or temporary impacts. Therefore, while components may result in temporary impacts the resolution of which is uncertain in timing resulting in significant and unavoidable impacts at a Program level, cumulatively because the Program would minimize impacts to sensitive vegetation communities and demonstrates consistency with Subarea Plan requirements, the Program would not result in a cumulatively considerable impact to sensitive habitats. Additionally, the Program proposes to maintain and enhance existing physical wetland buffers; therefore, providing a net benefit to the functions and values of the aquatic resources in the Mission Bay Park Improvement Zone (Improvement Zone)."

Please also see responses to comments D-2 through D-35 below.

D-2: No additional upland habitat is proposed for Rose Creek upstream of Grand Avenue. This comment does not concern adequacy of the Draft EIR, and no further response is required.

D-3: The comment states that Rose Creek Bike Path conflict with MHPA Adjacency Guidelines. The proposed improvements to the Rose Creek Bike Path would result in impacts to native and non-native habitat requiring implementation of Environmental Protocols and mitigation measures which reduce impacts and provide conformance with the MSCP. Conformance with MHPA LUAG is Appendix M, Table 4-1. The proposed concrete retaining wall is consistent with the MHPA LUAG as it serves to limit the footprint of impact (compared with traditional slope grading or a plantable retaining wall which would each have a larger horizontal footprint resulting in greater impacts to habitats in the MHPA) and provide a clear demarcation of the limits of publicly accessible areas. Edge effects are avoided through the improvements themselves, which would reduce discharges from degrading asphalt which are present in the current condition and provide a stable bike path surface with improvements that conform with current City Stormwater Standards, with temporary impact areas revegetated with native landscaping.

D-4: The comment states that Rose Creek MHPA is not addressed in Appendix M (BTR) Table 4-1 Consistency With MSCP. The cited MHPA LUAG is applicable to flood control projects/activities only. The improvements associated with the Rose Creek Bike Path are not for purposes of flood control and therefore analysis of conformance with this guideline was not provided, as it is not applicable.

D-5: The comment states that no evaluation of changes to Rose Creek flood control for the bike path is provided. All changes for the Rose Creek Bike Path would be completed without reducing capacity or flood control effectiveness of Rose Creek. Please also see Section 4.8 of the EIR.

D-6: The comment queries how widening of the Rose Creek Bike Path may affect sensitive habitat (Table 4.1 of the BTR, Appendix M). The widening of Rose Creek Bike Path would not alter the existing protections (or absences thereof) for sensitive habitat. Activities currently ongoing that may have adverse effects on the resources are not Program impacts, and that they may persist with the implementation the Program is also not a function of the Program nor impact thereof. Any unsanctioned activities undertaken by individuals under existing or with project conditions are not addressed as impacts under CEQA.

D-7: The comment states that the retaining wall and widening of Rose Creek Bike Path is in conflict with statement about consistency with the MSCP (Table 4.1 of the BTR, Appendix M). Also does this Program or De Anza Plan Amendment take precedence? The Rose Creek Bike Path component is designed to meet City standards for such an amenity as well as minimizing environmental impacts consistent with the MSCP SAP. One of these City standards is to offset increases in impervious surface through water quality best management practices such as the proposed biofiltration basin. Although existing salt marsh does have biofiltration functions, the salt marsh occurs in a receiving waters; the City's Stormwater Standards (which are written to comply with state and federal water quality regulations) do not allow for the use of receiving waters as best management practices. Rather, best

management practices are required upstream of receiving waters in developed areas to treat runoff prior to discharge to receiving waters. The proposed bioretention basis does not impact existing salt marsh and is proposed on land elevated above Rose Creek currently supporting bare ground and ornamental/disturbed vegetation. The De Anza Natural Plan is out in front of this Program and as such is anticipated to take precedence. The De Anza Natural Plan is separate and distinct from the Program. Program components could be determined to be implemented by the City separately from any activities associated with De Anza Natural Plan.

D-8: The comment asserts there is a gap in environmental analysis of impacts from the Rose Creek Bike Path to the Rose Creek MHPA from widening and lighting specifically. Please see response to comment D-3 for effects to the MHPA. For lighting impacts from the Rose Creek Bike Path, the PEIR and Implementation Framework attached to the EIR as Appendix K, EP-BIO-4 provides that lighting comply with Land Development Code Section 142.0740 (Outdoor Lighting Regulations) and where adjacent to the MHPA shall be shielded and directed away from the MHPA, as further set out in EP-LU-1. As also stated in the Implementation Framework, all lighting would comply with the Parks and Recreation Department's Park Design Manual (formerly Consultant's Guide to Park Design and Development); the City's SMART City program, as identified in City Charter Section 55.2(c)(1)(E); and when adjacent to the MHPA, with the MHPA LUAG. As such impacts from the Rose Creek Bike Path component are adequately addressed in the EIR.

D-9: The comment asserts that the Rose Creek Bike Path should not be considered service to existing demand only and should consider it as a draw for use and review that cumulatively. The Bike and Pedestrian Improvements Preliminary Engineering Report (PER) includes improvements to sections of the bike and pedestrian pathways around Mission Bay Park that are currently insufficient and/or substandard. While, providing improvements that would improve safety and enjoyment of visitors they are to match those levels of safety and enjoyment experienced on similar amenities elsewhere in the Park and as such are not proposed as an increase in amenities that may directly attract additional visitors to the park. Further, while the City hopes the improvements are welcomed and enjoyed by visitors, the increase in visitors to the Park are subject to complex rationales and improvements to the Park would not be the type of improvement that would expand population (more appropriately allocated to additional housing, transit facilities, and or major roadways).

D-10: The comment asks about potential conflicts between De Anza EIR and the PEIR and if recirculation is required. The De Anza Natural Plan is separate and distinct from the Program. Program components could be determined to be implemented by the City separately from any activities associated with De Anza Natural Plan. Recirculation of an EIR would not be required under CEQA Guidelines, Section 15088.5, "Recirculation of an EIR Prior to Certification."

D-11 to D-18: These comments refer to Appendix E, which includes references to Rose Creek Wetlands component. The Draft EIR Chapter 3, Project Description, and Appendix K, Implementation Framework, provide the project description for the Program. At the time Appendix E was prepared, the Rose Creek Wetland component was contemplated as part of the Program; subsequently that component has been removed. The De Anza Natural Plan is separate and distinct from the Program.

D-19: The comment states that Appendix G fails to address sea level rise for the bridge under crossings along the Rose Creek Bike Path. In accordance with case law, the Second District Court of Appeal's ruling in Ballona Wetlands Land Trust v. City of Los Angeles concluded that the environment's effects on a proposed project do not have to be analyzed under CEQA. This decision means that the court did not require the analysis of the impact of sea level rise on the project itself. California Supreme Court's holding agencies subject to CEQA are generally not required to analyze the impact of existing environmental conditions on a project's future users or residents unless the impacts of the project risk exacerbation of the impact. The PEIR includes evaluation of consistency with City policies related to addressing sea level rise in Section 4.9, Land Use and Planning, and the Program includes within objectives to improve resilience to sea level rise. While edits to the PEIR are not required under CEQA, in response to this comment, an Environmental Protocol has been added that specifies conducting updated Sea Level Rise modelling at the time of Site Development Permit processing or prior to grading permit issuance.

D-20: The comment states that Appendix G fails to address ADA for the bridge under crossings along the Rose Creek Bike Path. ADA review would be conducted during project-specific design and permitting. Please see the Implementation Framework (Appendix K) for additional details about the design and approval process of individual Program components. This comment does not concern adequacy of the Draft EIR, and no further response is required.

D-21: The comment asks whether the retaining wall along the Rose Creek Bike Path would be on private property, or riverward. All activities would be within the City's Improvement Zone. This comment does not concern adequacy of the Draft EIR, and no changes are proposed.

D-22: The comment states Appendix G fails to address ADA for the bridge under crossings along the Rose Creek Bike Path. See Response to Comment D-20.

D-23: The comment states Appendix G fails to address curb cuts access to the Rose Creek Bike Path from Grand and Garnet. No changes to existing access points at Grand or Garnet are proposed (as part of these main arterial roadways' right-of-way (ROW) that are not within the purview of the Improvement Zone). This comment does not concern adequacy of the Draft EIR, and no further response is required.

D-24: The comment states that Appendix K is unclear on the limits of Bike Path components and location of associated potential solid concrete (retaining) wall, which would be unwelcomed and living wall is suggested. The identified retaining wall would be on the east side of the bike path as described in the EIR and herein referenced by the commentor Appendix K (page 116) Implementation Framework. This comment does not concern adequacy of the Draft EIR, and no further response is required.

D-25: The comment states lighting refinements are recommended/suggested to Appendix K. Please see responses to comments D-8 and J-12. This comment does not concern adequacy of the Draft EIR, and no further response is required

D-26: The comment states Appendix E fails to address sea level rise for the bridge under crossings along the Rose Creek Bike Path. Please see Response to Comment D-19.

D-27: The comment states Appendix T fails to address updated sea level rise modeling or for the bridge under crossings along the Rose Creek Bike Path. Please see Response to Comment D-19 and D-11.

D-28: The comment asserts that contradictory statements are included in the Project Description related to the Bike Path components inclusion of retaining walls. To better clarify, the Project Description on page 3-39 has been revised as follows:

> "Retaining walls or concrete barriers are not proposed for the Ocean Beach Bike Path and the Rose Creek Bike Path improvements. However, retaining walls may be required for the Rose Creek Bike Path pending further geotechnical retaining wall and allowable fill slope requirements adjacent to Rose Creek."

D-29: The comment asserts that Figure 3-21 contradicts De Anza Plan Amendment and asks which is correct. Please see response to comment D-7. This comment does not concern adequacy of the Draft EIR, and no further response is required.

D-30: The comment asserts discrepancies with the De Anza Natural Plan, insufficient accounting for native plants outside the MHPA, and that no concrete bottom to Rose Creek Channel exists within the Improvement Zone. Please see response to comment D-7 regarding De Anza Natural Plan. All surveys were conducted by qualified biologists and accurately reflect the resources identified at the time of surveys. The uppermost reach of the Rose Creek Bike Path component extends up to Mission Bay Drive where a concrete bottom to Rose Creek is present (see Figure 4.2-5A in the EIR).

D-31: The comment queries where Rose Creek MHPA mitigation would be implemented (Table 4.2-37) per MM-BIO-2A and MM-BIO-2B and whether community input would be part of the location selection. While locations are not known or selected at this time, MM-BIO-2A and MM-BIO-2B outline the process for identifying and implementing all required mitigation, including the ratios to be applied and methods to achieve mitigation. Mitigation would be implemented in accordance with all applicable permit requirements, and in coordination with Regulatory Agencies and Parks and Recreation Department staff. Mitigation may occur at sites identified in the CHRMPs prepared for the Program. All Program components are potentially subject to future site specific permitting including State and Federal resource agency permitting, a City Site Development Permit, and a California Coastal Commission Coastal Development Permit.

D-32: The comment asserts that the biological impacts do not include/address the Rose Creek MHPA (Table 4.2-37). The referred to Table 4.2-37 identifies which mitigation measures apply to which components for potential impacts to sensitive biological species, it does not split out the Rose Creek MHPA impacts or opportunities for mitigation. The impacts in the EIR are appropriately assigned to Program components, and the mitigation measures identify the methods and performance criteria to achieve effective mitigation; as the sequence, timing, and ultimate locations for mitigation activities

are not known, though ostensibly could include the Rose Creek MHPA, the EIR concludes impacts would be significant and unavoidable.

D-33: The comment expresses disagreement with the Executive Summary (ES-59) and asserts that the Rose Creek Bike Path would result in substantial alteration to on- or off-site drainage patterns due to change in runoff flow rates or volumes. The design for the Rose Creek Bike Path component includes improvements to storm flows and widening that necessitates slope alterations. These improvements are designed to continue existing drainage patterns and improve (slow) discharge rates such that drainage patterns would not be substantially altered. For additional details on this topic please see Section 4.8 of the EIR, specifically Issue 2, as well as the Implementation Framework (Appendix K).

D-34: The comment expresses disagreement with the Executive Summary (ES-62) and asserts that multiple conflicts with the MSCP will result. Please see responses to comments D-3, D-5, and D-7.

D-35: The comment queries whether the proposed de-watering includes Rose Creek Bike Path and whether that would negatively affect the wetlands. The cited reference in the EIR (page 3-26) does not identify de-watering along Rose Creek; rather, it is related to shoreline restoration activities. This comment does not concern adequacy of the Draft EIR, and no further response is required.

Comment Letter E

Outlook

[EXTERNAL] Seawall comment

From Howard Leight <howardsleight@gmail.com>
Date Tue 2/3/2026 7:06 AM
To CIP CEQA Document Process <CIP-CEQA@sandiego.gov>

This email came from an external source. Be cautious about clicking on any links in this email or opening attachments.

It's falling apart! Please expedite.

Mission Bay Park Improvements Program EIR, WBS# B-18079

E-1

Howard Leight
Estate Manager
Malibu Rocky Oaks
619.228.3345

Responses to Comment Letter E

E-1 The comment asks to expedite the Seawall element. The comment is noted. Please refer to City Charter Section 55.2, which further details the process of funding and prioritization. No updates to the EIR are required or proposed.

Comment Letter F

CALIFORNIA STATE TRANSPORTATION AGENCY GAVIN NEWSOM, GOVERNOR

California Department of Transportation

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February 3, 2026

11-SD-5
PM 21.50
Mission Bay Park Improvements Program
DEIR/SCH#2024100048

Ms. Nancy Graham
Program Manager
City of San Diego
525 B Street, Suite 750
San Diego, CA 92101

Dear Ms. Graham

Thank you for including the California Department of Transportation (Caltrans) in the environmental review process for the Draft Environmental Impacts Report (DEIR) for the Mission Bay Park Improvements Program project located near Interstate 5 & 8 (I-5, I-8). 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. F-1

We look forward to working with the City of San Diego 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:

Hydrology and Drainage Studies
Caltrans has eight storm drainage systems and four bridges that are directly adjacent to and impacted by the proposed improvements and Mission Bay Park. The Hydraulics Branch reviewed all applicable studies and has the following comments:

- Studies reviewed are centered around providing design parameters to determine the preliminary design of the Mission Bay Park Improvements Program project. However, the studies do not appear to address how the proposed preliminary designs will impact adjacent and impacted facilities. Providing impact analyses is a necessary component of an EIR. F-2
- Please clarify if the impacts to groundwater elevation adjacent to I-5 due to the proposed improvements have been determined. F-3
- Please clarify the long-term (beyond 5 years) maintenance and operation plan of the proposed improvements. Also, please indicate how the hydraulic operation of the outlets of the drainage systems that Caltrans' drainage systems drain directly to, and the mouth of Tecolote Creek will cause no adverse impacts to these systems due to lack of maintenance. F-4
- Sea Level Rise (SLR) is analyzed to determine the impact to the proposed habitat, however, SLR impacts are not determined for the proposed physical improvements. Please indicate how will SLR impact the proposed physical improvements. F-5
- It appears that one of the purposes of the proposed improvements is to allow mixing of tidal waters with the fresh waters. As a result, the existing storm drains will be exposed to brackish water. Existing storm-drain material within Caltrans' Right-of-Way (R/W) will require improvements due to the proposed improvements to be suitable for a brackish environment. F-6

Tecolote Creek Wetlands CHRMP

- The Preliminary Engineering Report of Tecolote Creek submitted did not include an updated hydraulic analysis. Only preliminary construction drawings were included. Impacts to Caltrans on-site drainage systems, including on the east side of northbound (NB) lanes, the existing Caltrans bridges and Tecolote Creek within Caltrans' R/W have not been determined. F-7
- The proposed improvements at the mouth of Tecolote Creek and downstream are significant. Studies are needed to determine if and how this new outlet condition impacts Caltrans four bridges and the portion of Tecolote Creek within Caltrans' R/W that are directly upstream of the proposed improvements. These studies are required to determine if the proposed improvements have adverse impacts on the existing facilities. The studies for Caltrans facilities are to be compliant with Caltrans methodologies and to include two-dimensional studies performed with the SRH-2D software. Scour studies may be required at the bridges to determine any impacts. A Location Hydraulics Study may also be required. F-8
- Please clarify why one ton rock slope protection (RSP) is being proposed for scour under E Mission Bay Drive in the proposed improvements. Please also provide a scour analysis of Tecolote Creek mouth for the proposed condition. F-9
- With RSP being needed for scour under E Mission Bay Drive, then RSP improvements will be needed upstream also. F-10
- FEMA studies are required to determine what the water surface elevation impacts are on Tecolote Creek through the Caltrans' R/W due to the proposed improvements. F-11
- The increase in vegetation and habitat at the Tecolote Creek outlet will result in an increase of Manning's *n*. Please indicate how this impacts the hydraulics of Tecolote Creek. F-12

- Hydrologic and Hydraulics (H&H) analysis for the 25-year storm are also required to determine impacts to Caltrans on-site systems. F-13

Cudahy CHRMP

- The Preliminary Engineering Report of Cudahy Creek submitted did not include an updated hydraulic analysis. Only preliminary construction drawings were provided. Impacts to Caltrans on-site drainage systems have not yet been determined. F-14
- The proposed improvements present significant impacts to two Caltrans drainage systems that drain directly to the proposed improvements. Hydraulics Studies are required to determine if adverse impacts to Caltrans drainage systems will result due to the proposed improvements. F-15
- H&H analysis for the 25-year storm is required to determine impacts to Caltrans on-site systems. F-16
- The placement of rip-rap revetment will alter the hydraulics at the outlet of the systems that Caltrans on-site systems directly drain to. The impact of the altered hydraulics on Caltrans systems has not yet been determined. F-17
- Trash mitigation measures have significant impacts to the hydraulics of any storm drain system. Hydraulic studies are required to determine if adverse impacts to the I-5 drainage systems operations result from the implementation of any trash mitigation measures. F-18

The Hydraulics Branch supports the concepts proposed in the Mission Bay Park Improvement Plan, however without the appropriate studies, impacts to the Caltrans facilities and property remain undetermined and require further examination and analysis at program level. Additionally, improvements of Caltrans facilities may be necessary because of impacts due to the proposed improvements.

Design/FHWA

Because I-5 and I-8 are federal highways, any proposed changes to I-5 and I-8 will need approval by Federal Highway Administration (FHWA). F-19

Environmental

Caltrans welcomes the opportunity to be a Responsible Agency under the California Environmental Quality Act (CEQA) and to the continued coordination of our efforts. The proposed project may have an impact on Caltrans' R/W for traffic circulation support. Should elements of the project and/or mitigation measures affect Caltrans' R/W, Caltrans would have discretionary authority on this project within Caltrans' R/W through the form of an encroachment permit.

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. F-20

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 Final Environmental Document. F-21

Hauling/Traffic Control Plan

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:
http://www.dot.ca.gov/trafficops/permits/index.html

A Traffic Control Plan is to be submitted to Caltrans District 11, including the interchanges at I-5 & I-8, including on-ramps and off-ramps at I-5/Mission Bay Drive, on-ramps/off-ramps I-5/Sea World Drive, at least 30 days prior to the start of any construction. Traffic shall not be unreasonably delayed. The plan shall also outline suggested detours to use during closures, including routes and signage. F-22

Potential impacts to the highway facilities (I-5, I-8) and traveling public from the detour, demolition and other construction activities should be discussed and addressed before work begins. Any work or temporary traffic control within Caltrans' R/W will need to follow the Caltrans Encroachment Permit process.

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. F-23

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.

F-23

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

Response to Comment Letter F

F-1 The comment provides an introduction to the comment letter and forthcoming comments, and states Caltrans' commitment to safety. No response is required.

F-2 The comment states that preliminary studies do not analyze how the Program would impact neighboring facilities. A PEIR was prepared in accordance with Section 15168 of the CEQA Guidelines. Where later activities involve site specific operations, the agency would 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. If a later activity would have effects that were not examined in the PEIR, a new Initial Study would need to be prepared leading to either an EIR or a Negative Declaration. Later activities would be required to complete site-specific analyses, as described in the Implementation Framework and PEIR Mitigation Monitoring and Reporting Program. These analyses, including required hydrology analysis, which are required as part of adherence to the existing regulatory review process, would inform the design of projects such that impacts to external facilities would be avoided and minimized. Drainage control design plans would be prepared prior to approval of a grading or building permit to ensure that all drainage control features are consistent with all applicable local and state regulatory requirements.

F-3 The comment asks if groundwater effects have been determined. The PEIR Section 4.8, Hydrology and Water Quality, specifically Issue 1 of the Impact Analysis, discusses the effects of the project on groundwater management and flooding. The PEIR determined that groundwater may be encountered during construction of components within certain Elements. However, any de-watering activities would be temporary and limited to only what is necessary for a portion of the construction phase, and elements of the Program would ultimately improve hydrology and water quality within the Improvement Zone. Earthwork would occur during the dry season to the extent feasible and implementation of required best management practices would help protect groundwater quality. Groundwater elevations in the area are more influenced by tidal fluctuation rather than freshwater recharge; however, elements would improve infiltration and groundwater recharge such that the Program would thus not adversely affect elevations of groundwater.

F-4 The comment asks to clarify the long-term maintenance and operation plan of the Program elements. In addition, the comment asks if outlets will cause no adverse impacts to the Caltrans drainage system at Tecolote Creek.

Maintenance of bike, pedestrian, and seawall facilities are generally discussed in the Implementation Framework and Preliminary Engineering Reports as conducted in accordance with the City's existing maintenance protocols and routine activities throughout Mission Bay. For elements with a Conceptual Habtat Restoration and Monitoring Plan, long-term maintenance activities are discussed in those plans. Per the Implementation Framework, ongoing operations and maintenance is discussed to ensure the long-term ecological function and resilience of the restored Tecolote Creek Wetlands and the Fiesta Island Causeway culvert system. Routine activities would include trash and weed removal, particularly in transitional habitat areas, channel and culvert maintenance, and perimeter fence repairs. Additionally, adaptive management to respond to sea level rise would be critical over the life of the project. Maintenance efforts should be conducted on a regular basis to

sustain high-functioning habitat conditions. The culvert at Fiesta Island Causeway, if installed, would require routine inspection to ensure it remains free of obstructions such as floating debris, mussel growth, or damage from vandalism. Annual inspections are recommended, with cleaning performed as necessary to maintain effective tidal flow and wetland hydrology.

A comprehensive monitoring program would also be necessary to track ecological conditions over time. This monitoring should be coordinated with existing wetland studies in Mission Bay, particularly those involving local universities and the regional framework developed by the Southern California Wetlands Recovery Project's Science Advisory Panel. Long-term monitoring elements may include tidal elevation measurements, water quality testing, habitat condition assessments, and habitat type mapping. If problems arise, such as compromised hydrology or loss of marsh vegetation, adaptive sea level rise management would be initiated. Adaptive strategies may involve minor grading, replanting, culvert modification, or thin-layer sediment augmentation to maintain suitable tidal elevations and support marsh diversity in the face of changing sea levels. No further edits to the PEIR are proposed.

F-5 The comment asks how will sea level rise impact the proposed physical improvements.

In accordance with case law, the Second District Court of Appeal's ruling in Ballona Wetlands Land Trust v. City of Los Angeles concluded that the environment's effects on a proposed project do not have to be analyzed under CEQA. This decision means that the court did not require the analysis of the impact of sea level rise on the project itself. California Supreme Court's holding agencies subject to CEQA are generally are not required to analyze the impact of existing environmental conditions on a project's future users or residents unless the impacts of the project risk exacerbation of the impact.

The project would be consistent with the City's Climate Action Plan, Coastal Zone Management Act, and other applicable Plans and policies supporting development with consideration of climate change and Sea Level Rise. While edits to the PEIR are not required under CEQA, the Implementation Framework now includes discussion of Sea Level Rise consideration in future project planning (see Appendix K, Section 4.4), to acknowledge the City's climate initiatives.

F-6 The comment indicates that Caltrans understanding is that increased mixing of saltwater and freshwater is intended by the Program. The City takes this opportunity to clarify that improved water quality is the intent at the opening of channels under the Fiesta Island Causeway and through North Fiesta Island are intended to improve water movement and exchanges within Mission Bay and not to introduce saltwater beyond existing reaches, which the proposed wetlands would also inhibit. This comment does not concern adequacy of the Draft EIR, and no further response is required.

F-7 The comment indicates that an updated hydraulic analysis was not provided in the PER for the Tecolote Creek and Fiesta Island Causeway component. The PER for this component provides a hydraulic analysis using the FEMA Flood Insurance Study flow rate and the NRCS method and used the higher result to design the component to. The design was modeled using HEC-1 and a modified HEC-1 method (modified to us ethe higher flow rate). Updated analysis may be conducted as design progresses through 60% and the Site Development process and activities coordinated with Caltrans

as outlined in the Implementation Framework (Section 4.3). This comment does not concern adequacy of the Draft EIR, and no further response is required.

F-8 The comment expresses the design of the Tecolote Creek and Fiesta Island Causeway component alters outlet condition such that Caltrans facilities upstream may be affected, and a location hydraulics study may be required. Program elements are designed to improve drainage and overall water quality within the Improvement Zone. The Tecolote Creek wetlands design specifically, includes a bulbed open channel at the outlet designed to be able to retain freshwater in storm events intended to avoid effects upstream. A location hydraulics study may be conducted as part of Site Design Permit process as design plans progress to 60% and activities coordinated with Caltrans as outlined in the Implementation Framework (Section 4.3). This comment does not concern adequacy of the Draft EIR, and no further response is required.

F-9 The comment notes the design of the Tecolote Creek and Fiesta Island Causeway component includes 1 ton rock slope protection under E Mission Bay Drive and requests a scour analysis of Tecolote Creek. The 1 ton rock slope is identified at the discharge point from Tecolote Creek into Mission Bay and whereafter open channel is designed to be able to retain freshwater in storm events. A scour analysis may be conducted as part of Site Design Permit process [per EP-WQ-1] as design plans progress to 60% and activities coordinated with Caltrans as outlined in the Implementation Framework (Section 4.3). This comment does not concern adequacy of the Draft EIR, and no further response is required.

F-10 The comment indicates that if rock is needed under E Mission Bay it may be needed upstream too. Please see response to comment F-9.

F-11 The comment indicates FEMA studies are needed to assess potential impacts to Caltrans ROW upstream. Please see response to comment F-7 and the Implementation framework EP-HYD-2 “Prior to issuance of a Site Development Permit for Tecolote Creek Wetland and Fiesta Island Causeway, ECP shall provide to the Floodplain Manager design/improvement plans showing the location and cross-section of the proposed culverts, to understand the proposed conditions and potential effects on the effective 100-year floodplain.” In addition, as discussed in the PEIR Section 4.8, Hydrology and Water Quality, specifically Issue 2 of the Impact Analysis, a hydrologic analysis was conducted to determine the drainage area and peak flows from the Tecolote Creek watershed (Appendix C of the PEIR) and determined that the Tecolote Creek and Fiesta Island Causeway component would not impede or redirect flows.

F-12 The comment indicates that Caltrans considers the increase in vegetation for the Tecolote Creek and Fiesta Island Causeway wetlands component to result in an increase of “Manning’s n.” The increase in vegetation is balanced with increased channel depth and the improved circulation and movement of water with the introduction of a bridge or culvert under the Fiesta Island Causeway as part of this component. Please also see responses to comments F-7 through F-11. This comment does not concern adequacy of the Draft EIR, and no further comment is required.

F-13 The comment asserts that hydrological and hydraulics analysis for the 25-year storm are required to determine impacts to Caltrans on-site systems. Please see responses to comments F-7

through F-11. This comment does not concern adequacy of the Draft EIR, and no further response is required.

F-14 The comment indicates that an updated hydraulic analysis was not provided in the PER for the Cudahy component. The PER for this component provides a hydraulic analysis using the U.S. Army Corps of Engineers (USACE) HEC-RAS model including a 3-D elevation model. Updated analysis may be conducted as design progresses through 60% and the Site Development process and activities coordinated with Caltrans as outlined in the Implementation Framework (Section 4.3). This comment does not concern adequacy of the Draft EIR, and no further response is required.

F-15 The comment indicates that Caltrans believes the Cudahy component may affect two Caltrans drainage systems. The City takes this opportunity to clarify that the design accommodate existing flow rates from these drainages and improves the water quality and drainage as they discharge to Mission Bay, and they would not alter discharge rates or flows of those upstream systems, but would likely improve upon existing conditions as these outfalls are often inundated and inhibited. The channels in the design are modelled to show velocities through those and into the ultimate post-Cudahy wetlands open bay flows, even to the point of needing rock to dissipate energy at projected velocities. This comment does not concern adequacy of the Draft EIR, and no further response is required.

F-16 The comment asserts that hydrological and hydraulics analysis for the 25-year storm are required to determine impacts to Caltrans on-site systems. Please see response to comment F-14. This comment does not concern adequacy of the Draft EIR, and no further response is required.

F-17 The comment asserts that the placement of rip-rap at the outlets to Cudahy may affect Caltrans on-site systems. The rip-rap is intended to avoid erosive effects of the existing velocity exiting these outlets in the improved channelized design and would not adversely affect discharge thereof. Please also see response to comment F-14.

F-18 The comment asserts that trash mitigation measures require study for impacts to hydraulics of storm drains. The City (and Caltrans) adhere to California Standard Specifications for Public Works Construction or "Greenbook" Standard Plan No. 361-0, which offers details and specifications for a typical trash rack when incorporating state mandated Municipal Separate Storm Sewer System and National Pollutant Discharge Elimination System permit requirements for trash removal devices or full capture systems under the Trash Implementation Program.[1] Please also see response to comment F-14. This comment does not concern adequacy of the Draft EIR, and no further response is required.

[1] For more information about the State Water Board Trash Implementation Program, see https://www.waterboards.ca.gov/water_issues/programs/stormwater/trash_implementation.html#:~:text=The%20Trash%20Amendments%20apply%20to,of%20Transportation%20and%20construction%20dischargers

F-19 The comment indicates Federal Highway Administration approval would be needed for changes to Interstate 8 or Interstate 5 freeways. No changes are proposed to these freeways. This comment does not concern adequacy of the Draft EIR, and no further response is required.

F-20 The comment asserts that effects or encroachment into the Caltrans ROW affords discretionary approval to Caltrans of those activities and must satisfy CEQA. The City takes this opportunity to clarify that the EIR does not identify any activities or impacts that would adversely affect Caltrans facilities. While comments herein have indicated Caltrans' desire for additional study, no substantial evidence is provided that the PEIR conclusion or analysis are inadequate. The City further reclarifies that Program components are to be subject to permitting processes as they progress through the 60% design phase and that coordination with Caltrans is outlined as applicable in the Implementation Framework (Section 4.3).

F-21 The comment asserts that the project activities or impacts occur within Caltrans ROW and is interested in additional mitigation in the Final EIR. Please see responses to comments F-19 and F-20.

F-22 The comment discusses the Hauling/Traffic Control Plan. Traffic Control would be conducted in accordance with the Whitebook, Section 6, Traffic Control. Temporary traffic control for construction and work zones shall conform to Part 6 of the California Manual on Uniform Traffic Control Devices, the specifications, and the Traffic Control Plan if so included with the Plans or if required to be prepared by the contractor and submitted as a Working Drawing. While no direct impacts are anticipated through implementation of Program activities, any encroachment permit needed would follow proper channels.

F-23 The comment states that any work conducted within Caltrans ROW would require an encroachment permit and is subject to Caltrans discretionary approval. The comment is noted; see also comment F-22. The comment also concludes the letter. No further edits to the EIR or response is required.

Comment Letter G

Outlook

[EXTERNAL] Mission Bay Park Improvement Program/WBS# B-18079

From Jason Santos <jasonsantos@manzanita-nsn.gov>
Date Tue 2/3/2026 1:43 PM
To CIP CEQA Document Process <CIP-CEQA@sandiego.gov>
Cc Angela Elliott Santos <angelaelliottsantos@manzanita-nsn.gov>; John Elliott <johnelliott@manzanita-nsn.gov>; Veronica Santos <veronicasantos@manzanita-nsn.gov>

This email came from an external source. Be cautious about clicking on any links in this email or opening attachments.

Hello,

My name is Jason Santos and I am the Lead Monitor and Deputy THPO here at Manzanita Band of the Kumeyaay Nation. We have reviewed our maps and have determined that this project is not within the boundaries of the recognized Manzanita Indian Reservation. However, this project is within the territory boundaries that the tribe considers its Traditional Use Area (TUA). These areas are of great importance to the Manzanita Tribe because of its location within prehistoric culturally significant areas where the Kumeyaay have resided since time in memorial. Therefore, we request to be kept in the information loop as the project progresses and would greatly appreciate being maintained on the receiving list for project updates, reports of investigation, and/or any documentation that may be generated regarding previously recorded or newly discovered sites. Furthermore, we recommend Archaeological and Tribal Cultural monitoring on all ground disturbing activities given the proximity of known cultural and historic resources. If the project boundaries are modified to extend beyond the currently proposed limits, we request updated information and the opportunity to respond to your changes. We appreciate the outreach and look forward to future involvement. Manzanita offers Tribal Cultural monitoring. G-1

If you have any questions or need additional information, please do not hesitate to contact myself or Veronica Santos (THPO) by telephone at (619) 204-7514 or by e-mail at veronicasantos@manzantia-nsn.gov

Thank you,

Jason Santos
Lead Monitor, Deputy THPO
jasonsantos@manzanita-nsn.gov
(619) 715-6070

Response to Comment Letter G

G-1 The commenter is the lead monitor and Deputy Tribal Historic Preservation Officer for the Manzanita Band of Mission Indians. The comment states the project is within the Traditional Use Area for the tribe and thus requests to be kept in the loop for project updates. The comment also recommends Archaeological and Tribal Cultural Monitoring on all ground disturbing activities given the proximity to known cultural and historic resources. The tribe also requests an update if the project boundaries change.

(Response- discuss how AB 52 was conducted, consultation period and conclusion, section in Implementation Framework on further coordination, and where monitoring is proposed adjacent to resources)

Comment Letter H

Outlook

[EXTERNAL] Mission Bay Park Improvements Program EIR/WBS# B-18079

From Thomas Evans <taerow@gmail.com>
Date Tue 2/3/2026 9:00 PM
To CIP CEQA Document Process <CIP-CEQA@sandiego.gov>

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Dear City,

I would like to provide comment to the draft EIR for the Mission Bay Park Improvements Program. There are several elements of the EIR that I support such as expanded bike paths, tackling deferred maintenance, restoring seawalls, and improving wayfinding. H-1

One major concern I have is the removal of large swaths of public access beaches and land. Currently, the NORTH FIESTA ISLAND WETLAND AND WATER QUALITY IMPROVEMENTS, TECOLOTE CREEK WETLAND AND WATER QUALITY IMPROVEMENTS plans all remove critical beach access. H-2

I currently own a house and live on the hill in Baypark and have a clear view of Fiesta Island. Over the years of living at my home, I have noticed what a key asset Fiesta Island is for the underserved low income and minority families of San Diego County. At this point in time, the actual coastal beaches have become an almost exclusive playground for the wealthly in town and out of town short term rental guests. Parking has been reduced more and more and the city of San Diego is now proposing to add paid parking at the beach. On busy summer weekends, beach parking is full by 10 am and if you are not fortunate enough to have a house close to the beach, it is completely inaccessible. This is where Fiesta Island comes in. Cars are allowed to park on the sand and the island can absorb hundreds and hundreds of thousands of people on weekends. There is no cost to enter and parking is free. I love seeing huge families from all backgrounds gather to beat the heat at the beaches of Fiesta Island.

The current proposal closes huge areas of Fiesta Island (especially the northern end) off to vehicluar access. This is a win for the elitiest locals who don't want the "degenerates" from poorer neighborhoods blocking their views and "ruining" their neighborhood. They use the excuse of bird sanctuaries and nature preservation to close these areas off to the wonderful underserved communities of San Diego County.

Please reconsider your current proposals to reducing park and public access to Fiesta Island and other parts of Mission Bay in the name of "nature" and "bird habitats". San Diego elected officials are responsible for representing their constituents (including those of less fortunate backgrounds) and not the small but powerful nature interest groups that want Misson Bay Park for themselves.

Mission Bay Park was initially created as a recreation destination for San Diego residents. This plan goes against the original intent of the park by limiting access to recreation.

Lastly, I have documented the immense use by San Diego residents of Fiesta Island and the proposaed spots that will have access limited under this plan. If this plan goes forward as currently proposed, I will submit a complaint to the Coastal Commision that this plan is limiting coastal access to underserved populations in San Diego.

--
Thomas Evans
Baypark Resident
taerow@gmail.com

Response to Comment Letter H

H-1 The comment introduces elements of the Program that are supported by the commenter, and no response is proposed.

H-2 The commenter discusses removal of public access and beach land as part of the North Fiesta Island and Tecolote Creek Wetland and Water quality Improvements Elements. The comment indicates that the proposal closes access to underserved populations in San Diego. The comment states Mission Bay Park was initially created as a recreation destination for San Diego residents. The comment indicates a complaint will be submitted to Coastal Commission.

The Program is located in the Coastal Zone, and all elements are subject to the Coastal Zone Management Act. The PEIR discusses the Program's consistency with the General Plan, Mission Bay Park Master Plan, relevant community plans and the Coastal Zone Management Act. Impacts to parking are not considered under CEQA and the City's Significance Determination Thresholds. The PEIR does include evaluation of recreation impacts (Section 4.11, Recreation) and whether there are any conflicts with applicable land use plans and policies including those related to access (Section 4.9, Land Use and Planning).

With respect to equity, the PEIR discusses the Program's consistency with the Climate Action Plan, especially as it relates to Communities of Concern. As discussed in Section 4.5, Greenhouse Gas Emissions, the Improvement Zone is surrounded by Communities of Concern, which are communities identified by the City that have historically had less access to opportunities due to environmental justice and social equity issues. The Program would expand endangered or threatened species preserves and upland habitat areas within Mission Bay Park, which would support greening of the City. The Program would improve Mission Bay Park through wetland expansion, water quality improvements, and the protection and expansion of eelgrass beds. The Program's wetland expansion would create healthier ecosystems by providing water quality treatment and enhancing habitats, while also balancing the need for flood control and resource mitigation. Furthermore, the Program would increase resiliency to climate change, specifically sea level rise, in the Communities of Concern surrounding Mission Bay Park. The Program would target inadequate and failing shorelines within Mission Bay Park, and prioritize shoreline restoration treatments, including restoration of beach sand and stabilization of erosion control features. The Program would restore the seawall, which would replace the existing seawall along Mission Beach Boardwalk and extend the seawall by approximately 375 feet. All the Program's objectives directly support resilient infrastructure and healthy ecosystems, supporting the City's Climate Action Plan.

Please note that pursuant to the City Charter Section 55.2, funds in the Mission Bay Park Improvement Fund may be expended only in the Mission Bay Park Improvement Zone to restore wetlands, wildlife habitat, and other environmental assets within the Mission Bay Park Improvement Zone; to preserve the beneficial uses of the Mission Bay Park Improvement Zone including, but not limited to, water quality, boating, swimming, fishing, and picnicking by maintaining navigable waters and eliminating navigational hazards; to restore embankments and other erosion control features; and to improve the conditions of the Mission Bay Park Improvement Zone for the benefit and

enjoyment of residents and visitors, consistent with the Mission Bay Park Master Plan. Under the Charter, the top priorities of these funds are the following:

> (A) Restoration of navigable waters within Mission Bay Park and elimination of navigational hazards,
> (B) Wetland expansion and water quality improvements and the protection and expansion of eelgrass beds,
> (C) Restoration of shoreline treatments within the Mission Bay Park Improvement Zone including restoration of beach sand and stabilization of erosion control features,
> (D) Expansion of endangered or threatened species preserves and upland habitats on North Fiesta Island and along the levee of the San Diego River floodway as identified in the Mission Bay Park Master Plan, and
> (E) Deferred maintenance projects that are also Capital Improvements.

The City of San Diego shall take all steps necessary to ensure the collection and retention of all Mission Bay Park Lease Revenues for purposes in the Charter and to utilize those revenues only for the purposes described and consistent with the priorities and intentions described therein. No updates to the PEIR are required or proposed.

Comment Letter I

Outlook

[EXTERNAL] Mission Bay Park Improvements Program EIR/WBS# B-18079

From Project GNBee <groundnestingbees@gmail.com>
Date Tue 2/3/2026 9:37 PM
To CIP CEQA Document Process <CIP-CEQA@sandiego.gov>

This email came from an external source. Be cautious about clicking on any links in this email or opening attachments.

Dear City of San Diego Engineering & Capital Projects Department,

Project Ground-nesting Bees is a team of researchers at Cornell University with the aim of documenting and studying wild bee nesting aggregations all over the world. We appreciate the opportunity to comment on a plan that would impact one of our important study sites.

Dieunomia nevadensis ssp.angelesia is a relatively uncommon solitary, ground nesting bee, endemic to the western United States. The aggregation of nesting sites at Fiesta island is currently the **only documented aggregation** of these bees known to us, and is particularly notable for its size. We are increasingly aware that availability of nesting habitat is crucial for pollinator community stability, and large, long-term nesting sites like the one documented at Fiesta island could be sustaining the main population of this species for a significant geographic region.

Additionally, there are currently **no published studies** on the nesting biology of *Dieunomia nevadensis*, let alone the *angelesia* subspecies. Preservation of this site is very important for future biological studies.

I-1

The location of this site in a public park also presents an opportunity for education, outreach, and public engagement. Very few people know about the diversity or natural history of bees in California. An annual emergence of bees from Fiesta island creates a public place like nowhere else where people can learn about and marvel at California's native fauna.

GNBee researchers fully support the recommendations of the California Native Bee Society to help conserve this important nest site. If you have additional questions, please reach out at groundnestingbees@gmail.com.

Best regards,
Jordan Kueneman and Project GNBee

Response to Comment Letter I

I-1 The comment introduces the *Dieunomia nevadensis* ssp. *angelesia* and states that the Program would impact a potential study site and support of the comments from the California Native Bee Society. Please see responses to comments B-1 and J-3.

Comment Letter J

For birds, for people, for the planet.

February 03, 2026

Jamie Kennedy
City of San Diego Engineering & Capital Projects
8525 Gibbs Dr. Suite 302
San Diego, CA 92123
CIP-CEQA@sandiego.gov

Subject: Mission Bay Park Improvements Program, Project No. B-18079, SCH No. 2024100048

The San Diego Bird Alliance is a 3,000+ member non-profit organization with a mission to foster the protection and appreciation of birds, other wildlife, and their habitats through education and study, and to advocate for a cleaner, healthier environment. We have been involved in conserving, restoring, managing, and advocating for wildlife and their habitats in the San Diego region since 1948. We and our co-signing organizations appreciate the opportunity to comment on the Mission Bay Park Improvements Program EIR December 2025 draft, and we recommend the following clarifications and changes to align the plan with scientifically-based best practices and the most current sea level rise data in order to address key wildlife habitat and public amenities concerns.

Our comments, including questions and recommendations, focus on the following issues in the draft:

3.3	Clarification of "the Rose Creek Element"
3.3.1.1	Mitigation of negative impacts to *Dieunomia nevadensis ssp angelesia* caused by the North Fiesta Island Material Reuse plan
3.3.1.2	Design of the Tecolote Creek and Fiesta Island Causeway
4.2	Clarification of measurement references in vegetation tables
Tables 4.2 - 34	Mitigation of Rose Creek Bike Path vegetation impacts
4.8	Corrections to mislabeled Appendix and outdated Sea Level Rise models
4.8.1.4	Inclusion of mitigation plans for microplastics, including from High Density Polyethylene oyster bags and reef balls, in Hydrology and Water Quality plans
MM-BIO-2A	Prioritizing mitigation within the Mission Bay Park Improvement Zone
5.2.9 App B, G	Application of accurate, updated State of California SLR data to the plans for the Rose Creek Bike Path application of Dark Sky principles to mitigate negative effects on wildlife,especially bird migration, of lighting plans for Rose Creek and the Robb Field/Gateway Connectivity Paths
5.3.8.1	Corrections and clarifications to the De Anza Point and Cove construction and monitoring plans, including commitment to a timely adaptive management plan in alignment with the Mission Bay Park Master Plan
Appendix M	Compliance of Lighting plans with Land Development Code and application of Dark Sky principles to mitigate negative effects on wildlife in this MHPA.

J-1

3.3 Program Elements (pg 3.2)

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Please clarify if "the Rose Creek Element" relates to just the DeAnza Cove portion of Rose Creek and not the Rose Creek bike path improvements elements. J-2

3.3.1.1 North Fiesta Island Component; Material Reuse (pg 3-8)
The site of Stockpile Site #1 and #2, as proposed, will destroy existing nesting areas for the native bee, *Dieunomia nevadensis ssp angelesia*. Stockpile site #1 will be the most destructive. These nesting sites were brought to the attention of the city in 2022 and 2023 and were included in comments to the Mission Bay Park Improvement Program (2024). The phrasing of this section stating, "The stockpile options used would be refined upon final design to avoid and minimize potential for direct impacts to sensitive habitat" indicates that the final design could potentially be changed to mitigate this significant impact to the bees' existing habitat. Will the nesting site of *Dieunomia nevadensis ssp angelesia* be taken into account in this final design with preservation of the nesting area as a goal? The loss of this species' nesting areas could be considered a significant impact as defined under CEQA Guidelines Section 15065(a), and be covered under the City's current Thresholds of Significance (City of San Diego 2022a) as described in "**4.2.3 CEQA Significant Impact; Issue 4:** Interfering substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites." Additionally, the route outlined for the heavy construction equipment operation will also have a significant impact on the nesting site. Mitigation measures to implement are: (1) limiting construction to take place only outside the species's active flight season of September to October; (2) stockpiling the soil on Sites #2 and #3; (3) rerouting the temporary road further west of the nesting site; (4) installing protective fencing and signage around the nesting site during construction; (5) retaining and/or planting host plants. If these measures cannot be implemented, the soil should be appropriately collected, and qualified researchers/biologists should relocate the nests. Will these measures be added to the mitigation measures? Will this species be added to **MM-BIO-1 Focused Biological Species Surveys** (pg 4.2-75)? J-3

3.3.1.2 Tecolote Creek and Fiesta Island Causeway Component; Description; Tecolote Creek (pg 3-11)
There are 2 proposed channels under the Fiesta Island Causeway. The open, earthen-bottom channel is the current proposed design. This design will provide a more natural flow with ecological value from the natural streambed and provide wildlife corridors. A proposed alternative is a box culvert, which is less desirable as it has less ecological value and would restrict tidal flows. We support the open, earthen-bottom channel as the culvert design will not benefit the planned improvements. While a box culvert may be a less expensive option to build, the cost of long-term maintenance and detrimental effects on the restoration project should exclude this option in Appendix B. J-4

3.3.1.2 Dune habitat planned for Tecolote Creek and Fiesta Island Causeway Component; Description; Tecolote Creek (pg 3-11), **3.3.3 Upland Habitat and Preserve Expansion Element** (pg 3-29), **4.4 Wetland and Water Quality Improvement Element** (pg 4.4-11), **4.8 Hydrology and Water Quality** (pg 4.8.20) J-5

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Dune habitat restoration is mentioned in several locations in the plan and the long-term management of those habitats needs to be acknowledged and committed to in the plan. Dune habitats are almost completely lost from Mission Bay (only the San Diego River Mouth has any functioning dune ecosystem) and very valuable as habitat and as a form of coastal resilience, but in the actively used and non-native invaded communities that exist in Mission Bay currently, annual maintenance of dune habitat will be necessary to ensure its habitat value. Will the plan commit to long-term maintenance of the native plants, nesting habitat, and dune landforms that will be created? J-5

Section 4.2 Tables 4.2-20 through 4.2-35
The following columns in these vegetation tables that include information regarding Multi-Habitat Planning Area (MHPA): Impacts within MHPA and Impacts Outside of MHPA, do not indicate what measurement the numbers represent. These areas are typically measured in acres. Please correct this error and confirm acres is the intended measurement. J-6

4.8 HYDROLOGY AND WATER QUALITY
Preliminary Engineering Report Mission Bay Improvement Zone Bicycle and Pedestrian Paths, May 31, 2024 is incorrectly labeled as Appendix F. The correct appendix is Appendix G.
The Sea Level Rise (SLR) (OPC 2018) rise model used in Appendix B is outdated. Will this Appendix be updated to reflect the current SLR model (OPC 2024)? J-7

Section 4.8.1.4 Water Quality
This section's extensive list of pollutants in Mission Bay does not include the increasingly dangerous and ubiquitous level of microplastics that exist in all water bodies. Current research is clear about the dangers of microplastic pollution to sea life and to humans. Careful consideration needs to be given to all elements of this improvement plan to eliminate any product that will add to microplastic pollution.
We expressed concerns in the MBPIP Framework letter regarding oyster bags traditionally being made from high density polyethylene (HDPE) and microplastic contamination as a result. The use of coconut coir bags is specified in **Appendix E: Shoreline PER** for use at De Anza Point (pg 34), but not in the other site plans that include the use of oyster bags (**4.1.2 Ventura Cove Park** and **5.6.3.Vacation Island Southwest**). The coconut coir bags are an appropriate material for all oyster bags used in this project to prevent further degradation of water quality in Mission Bay. Additionally the **Appendix E PER** includes the possibility of using reef balls to stabilize shorelines and improve oyster habitat, but it does not specify the use of concrete constructed reef balls rather than plastic construction. Plastic reef balls will increase microplastic pollution in Mission Bay.
Will **Appendix E** be updated to clarify the use of non-plastic materials for oyster bags and reef balls at all sites? J-8

MM-BIO-2A Compensatory Wetlands Mitigation (pg 4.2-76)
This mitigation plan should commit to mitigating wetland impacts within the Mission Bay Park Improvement Zone as a priority since the City has options when designing this plan. Will this mitigation J-9

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plan be updated to commit to mitigation within the Improvement Zone, and to work with resource agencies if mitigation is proposed outside the Zone? J-9

Appendix G Bike Ped PER Section 5.2.9 Sea Level Rise and Lighting

This section states, regarding the Rose Creek Bike Path, that "*The lowest elevation of the Rose Creek Bike Path is at the south end and is approximately 9 feet above sea level, therefore SLR is not anticipated to be a risk to the project in the future.*" However, the SLR model (OPC 2018) used in this section is outdated. At a King Tide Event held by Friends of Rose Creek and San Diego Bird Alliance on January 3, 2026 at the Rose Creek Bike path the water level was approximately 6 inches below the bike path under the Grand Ave bridge, indicating that SLR is a concern and this bike path will be subject to frequent flooding especially when the path is lowered under the bridge. This distance to sea level noted this year was without any increase from storm surge, which could raise the bay even further. Is there a plan to mitigate this problem? Appendix B covering the North Fiesta Island Component proposed bridges uses State of California SLR Guidance: 2024 Science and Policy Update, issued in January 2024. Will this report be updated to the current model applied in Appendix B to accurately reflect the impact of SLR on the changes proposed for the Rose Creek Bike Path? J-10

Additionally, lighting is recommended along the Rose Creek and the Robb Field/Gateway Connectivity Path. The type of lighting is not addressed in Appendix B or in the PEIR other than a brief mention of lighting adjacent to MHPA. As these areas are part of important bird areas, lighting that complies with the Dark Sky five principles for responsible lighting should be required. We urge that the likely impacts of any changes in lighting be fully analyzed for its impacts on birds and other native wildlife, including impacts on migration and increases in vulnerability to nocturnal predators. https://darksky.org/resources/guides-and-how-tos/lighting-principles/ Will this plan be improved to commit Mission Bay Park lighting design to dark sky principles and MHPA requirements for lighting in sensitive City areas? J-11

Appendix E: De Anza Point and Cove

Section 5.3.8.1 details construction and monitoring plans, and states "*a monitoring program may be required by the CCC to quantify changes to the site over time.*" This language should commit the city to a management and monitoring program as is required by the De Anza Cove Amendment to the Mission Bay Park Master Plan (page 29, 67b.) to ensure adaptive management is done in a timely and iterative manner to provide for maintaining an appropriate blend of low, middle, and upper marsh habitat types that over time may be required. J-12

We support the inclusion of incremental shoreline retreat and/or sediment augmentation as demonstrated in the US Fish and Wildlife's Seal Beach project, as an example of wetland augmentation that may be required to keep low marsh as a functioning habitat in Mission Bay.

Additionally, work on De Anza shorelines should be integrated with De Anza Cove wetlands for cut and fill purposes, as is not cost or time effective to complete separately. Phrasing on page 86 states that the De Anza Cove amendment and this restoration of shoreline project conform even though the maps are different. How does this plan account for the creation of an island at the toe of the boot and other changes

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in the De Anza Cove amendment? Will this plan be updated to state that the work in the De Anza area will be integrated into the De Anza Natural plan?

J-12

Appendix M, EP-BIO-4 Lighting Standards (pg 37)
The addition of lighting is recommended along the Rose Creek and the Robb Field/Gateway Connectivity Path. This lighting is required to be in compliance with the "Land Development Code Section 142.0740 (Outdoor Lighting Regulations).
Appendix M, EP-LU-1 Land Use Adjacency Guidelines (pg 37)
"Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting." As these areas are part of important bird areas, lighting that complies with the Dark Sky five principles for responsible lighting should be required. https://darksky.org/resources/guides-and-how-tos/lighting-principles/

J-13

Thank you
Sincerely,

Jim Peugh
Conservation Committee Co-Chair
San Diego Bird Alliance
peugh@cox.net

Muriel Spooner
Conservation Committee Co-Chair
San Diego Bird Alliance
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Kristen Northrop
Policy Advocate
Coastal Environmental Rights Foundation

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Pamela Heatherington
Board of Directors
Environmental Center of San Diego

SIERRA CLUB
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Charles Rilli
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Sierra Club San Diego Chapter

SAN DIEGO
COASTKEEPER

Phillip Musegaas
Executive Director
San Diego Coastkeeper

SURFRIDER
FOUNDATION

Zack Zeiman
Climate Action Program Lead
Surfrider Foundation, San Diego Chapter

Response to Comment Letter J

J-1 The comment introduces the San Diego Bird Alliance organization and the topics to be discussed in the comment letter. No response is required. Individual responses are provided below in responses to comments J-2 through J-12.

J-2 The comment requests clarification if the Rose Creek Element (PEIR Section 3.3) refers to the De Anza Cove portion of Rose Creek and not the Rose Creek bike path improvements elements. The noted exclusion of the Rose Creek Element referenced herein is indeed referring to the formerly considered Rose Creek wetlands restoration component of the Wetland and Water Quality Improvement Element. The Bicycle and Pedestrian Improvements Element does include a component along Rose Creek, which is not excluded and further described in the Draft EIR subsection 3.3.4, Bicycle and Pedestrian Improvement Element. To further clarify this in response to this comment the text has been corrected as follows:

> "The Rose Creek component of the Wetlands and Water Quality Element is not a part of the improvements at this time because the planning process for DeAnza Cove is underway and occurring separately from this effort."

J-3 The comment regards mitigation of negative impacts to *Dieunomia nevadensis* ssp. *angelesia* caused by the North Fiesta Island Material Reuse Plan (PEIR Section 3.3.1.1). Significance, which drives mitigation, is based on whether a project would cause a substantial adverse effect on a site essential for the reproduction or rearing of wildlife, such that it would impair the viability of a local or regional population, not the mere presence or disturbance of a nest or burrow. *Dieunomia nevadensis* ssp. *angelesia* specifically, is not listed under the California Endangered Species Act or the federal Endangered Species Act, and is not designated by CDFW as a Species of Special Concern or Fully Protected species. Additionally, the species has no NatureServe state rank in California (SNR) and a Global Rank of G5 (Secure) for the species as a whole, reflecting a widespread, stable taxon with no documented range-wide decline. The absence of special status designation is relevant to evaluating biological significance under Issue 1.

Further, a "wildlife nursery site" is not defined by taxon, and the lack of supporting evidence that there is a native wildlife nursery site inclusive of *Dieunomia nevadensis* ssp. *angelesia* is relevant to determining significance under Issue 4. *Dieunomia nevadensis* subspecies, including *angelesia*, are solitary, ground nesting bees that nest in shallow, simple burrows excavated in friable soils and exhibit low nest fidelity, with females readily establishing new nests within the same general habitat when suitable soils are available. This contrasts with wildlife nursery sites that are treated as significant under CEQA (e.g., raptor nests, bat maternity roosts, heronries), which are structurally complex, repeatedly reused, and spatially limited. Peer reviewed studies of *Dieunomia* and closely related Nomiinae bees demonstrate that nests are ephemeral, annually constructed, and frequently abandoned or relocated, with no evidence of long-term nest reuse (Wuellner 1999a; McKinley et al. 1994). Nesting success is driven by soil conditions rather than attachment to specific burrows (Wuellner 1999a), and females may shift among nests within a season (Wuellner 1999b). At the subfamily level, Nomiinae nests are generally reconstructed annually and known to shift within

suitable habitat year after year (Scislo 1993). Accordingly, disturbance of an individual *Dieunomia nevadensis* ssp. *angelesia* nest does not represent loss of a persistent or irreplaceable wildlife nursery site. As the nesting substrate would still be present in the region and available for recolonization, and loss of an individual nest does not preclude continued reproduction in the area, were the significance of impacts to this species necessary, the determination would be less than significant given the replaceable conditions.[2] As such, the EIR is adequate in addressing significance of sensitive biological resources including native wildlife nursery sites, and that the *Dieunomia nevadensis* ssp. *angelesia* specifically is not required to be assessed.

J-4 The comment discusses design of the Tecolote Creek and Fiesta Island Causeway (PEIR Section 3.3.1.2). This comment expresses support for the proposed design of channel opening under the Fiesta Island Causeway via a bridge, discouraging the alternative culvert design. This comment does not concern adequacy of the Draft EIR, and no further comment is required.

J-5 This comment asks that the plan commit to long-term management of the native plants, nesting habitat, and dune landforms created. All elements and components once constructed would be maintained by Parks and Recreation consistent with City protocols and practices including the Green book. The Section 4.5 of the Implementation Framework (PEIR Appendix K) and associated attached CHRMPs (Appendices K1 through K5) provide detail on the maintenance and monitoring of these restored habitats and explains how long-term management is directed by the Natural Resources Management Plan and Mission Bay Park Master Plan. The City's park design manual and Land Development Manual landscape standards also go into detail on management standards.

J-6 The comment discusses mitigation of Rose Creek Bike Path vegetation impacts (Tables 4.2-20 through 4.2-35), specifically that they are missing metrics and should be added, noting these are typically in 'acres.' In response to this comment the appropriate column headers for these tables has been revised to include "(acres)."

J-7 This comment identifies that the Bicycle and Pedestrian Path PER is incorrectly labelled as Appendix F instead of Appendix G and identifies that the Sea Level Rise model used in Appendix B was dated 2018 and asks whether it will be re-run with the updated 2024 model. In response to this comment the EIR text on page 4.8-1 has been revised as follows:

[2] For more information, see references:
Minckley, R.L., Wcislo, W.T., Yanega, D., & Buchmann, S.L. 1994. "Behavior and phenology of a specialist bee (*Dieunomia*) and sunflower pollen availability." *Ecology* 75(5): 1406–1419.
Wuellner, C.T. 1999a. "Nest site preference and success in a gregarious, ground nesting bee, *Dieunomia triangulifera*." *Ecological Entomology* 24(4): 471–479.
Wuellner, C.T. 1999b. "Alternative reproductive strategies of a gregarious ground nesting bee, *Dieunomia triangulifera*." *Journal of Insect Behavior* 12(6): 845–863.
Wcislo, W.T. 1993. "Communal nesting in *Nomia tetrazonata*, with notes on nesting behavior of *Dieunomia heteropoda*." *Annals of the Entomological Society of America* 86(6): 813–821.

"• Preliminary Engineering Report Mission Bay Improvement Zone Bicycle and Pedestrian Paths, May 31, 2024 (Appendix ~~F~~ G)"

The Sea Level Rise Model was done as part of preparation of the PERs and to inform the design using the most up-to-date model available at that time. As all components go through the cycles of iterative and increased detailed design, updating modeling for Sea Level Rise would be conducted using the most up-to-date model available at that time. In response to this comment, the Implementation Framework (Appendix K) has been modified that specifies conducting updated Sea Level Rise modelling at the time of permit processing.

J-8 The comment discusses inclusion of mitigation plans for microplastics from High Density Polyethylene oyster bags and reef balls. The Eelgrass Conceptual Habitat Restoration and Monitoring Plan (CHRMP) is Appendix K5 to the PEIR and itself includes an Appendix A, Oyster Restoration Guide for Mission Bay Park Improvements Program, which recommends using coconut coir or biodegradable materials, and the Implementation Framework (Appendix K to the PEIR) states their installation would be made using "environmentally friendly materials" and reference the CHRMP. Further in response to this comment the City has updated the Implementation Framework to exclude the use of plastics in the installation of oyster habitats.

J-9 The comment discusses prioritizing mitigation within the Mission Bay Park Improvement Zone (MM-BIO-2A). The City takes this opportunity to reaffirm that it is the intent of the City and the Program, specifically the Wetlands Restoration and Water Quality Improvements Element, to achieve a net benefit in wetlands within the Mission Bay Park Improvements Zone. However, because the timing and sequence of Program Elements and components completion is not known at this time, the mitigation addresses impacts as they recognize the potential for temporal gaps between impacts and beneficial wetlands restoration activities/components. The mitigation would be subject to coordination and permitting with resource agencies as set out in MM-BIO-2A and as set out in the Implementation Framework Section 4.5 and Environmental Protocol (EP) - BIO-1. Please also see response to comment D-8.

J-10 The comment asks to apply updated State of California sea level rise data to plans for the Rose Creek Bike Path, application of Dark Sky principles to mitigate negative effects on wildlife, especially bird migration, of lighting plans for Rose Creek and the Robb Field/Gateway connectivity paths.

The lowest surface level for the Rose Creek Bike Path is 9 feet above sea level. The exceptions, as pointed out by the commentor, are where the path is currently dropped below surface level to go under the road bridges (Grand and Garnet). The constraints of the bridge clearance requirements drive the design at these locations, and the design involves cut to lower eastward edges and raise westward (shoreward) edges. The underpass of Garnet is the lowest and currently walled off from Rose Creek, which would remain. Further consideration can be built into future design stages for these underpasses for sea level rise including updated modelling with the latest available at the time of that design. As the footprint would not increase under potential adaptative designs, and the potential effect would be to the proposed improvements rather than from them, no further evaluation is needed in the EIR.

Please note that Robb Field/Gateway Connectivity is not a part of the proposed project and is being analyzed in separate CEQA review.

J-11 This comment suggests that bike path lighting is not evaluated in the EIR and asks that lighting comply with the Dark Skies five principles. In the Implementation Framework (EIR Appendix K), the 5 principles of Dark Skies were included under EP-LU-2. Additionally, EP-BIO-4 provides that lighting comply with Land Development Code Section 142.0740 (Outdoor Lighting Regulations), and EP-LU-1 provides that where adjacent to the MHPA, lighting shall be shielded and directed away from the MHPA. The Implementation Framework states all lighting would comply with the Parks and Recreation Department's Park Design Manual, the City's SMART City program as identified in City Charter Section 55.2(c)(1)(E), and with the MSCP LUAG when applicable. Please also see response to comment D-8.

J-12 The comment requests corrections and clarifications to the De Anza Point and Cove construction and monitoring plans, including commitment to a timely adaptive management plan in alignment with the Mission Bay Park Master Plan in Section 5.3.8.1. The De Anza Cove Amendment is separate and distinct from the Program while certain components overlap that would provide improvements to the existing conditions in that area (Rose Creek Bike Path, and Deferred Maintenance components as examples).

J-13 This comment restates information provided in the Draft EIR and appendices regarding lighting. Please see response to comment J-11.

Comment Letter K

Outlook

[EXTERNAL] Mission Bay Park Improvements Program Draft EIR / Mission Bay Youth Field Association Comments

From Mark Sullivan <mjsullivan@mjscm.onmicrosoft.com>
Date Wed 2/4/2026 11:21 AM
To CIP CEQA Document Process <CIP-CEQA@sandiego.gov>
Cc Billy Bonelli <billybonelli@gmail.com>; Julia Sullivan <sullivan_julia@yahoo.com>; Bothwell, Marcella <bothwellm@icloud.com>; Mary Kay <marykaypysl@gmail.com>; Tyler Smith <smith252369@gmail.com>

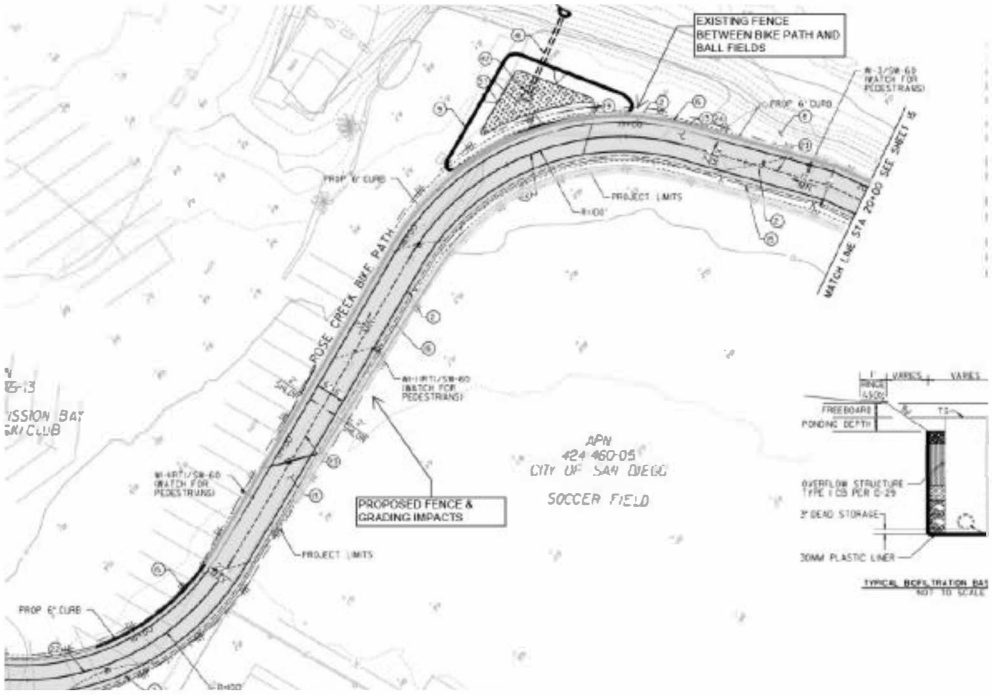
This email came from an external source. Be cautious about clicking on any links in this email or opening attachments.

City CIP,

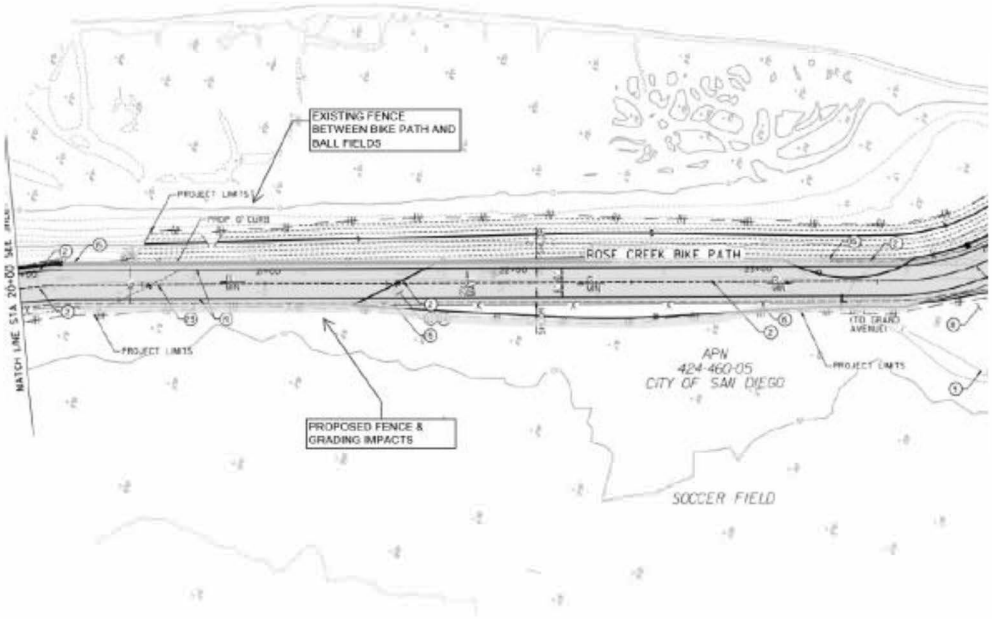
The Mission Bay Youth Field Association represents the interests of PYSL Youth Soccer, Mission (Coastal) Bay Girls Softball & Mission Bay Boys Baseball.

Reference is made to Appendix "G" of the EIR regarding the Rose Creek Bike Path and Sheets C-12 & C-13 of the preliminary design. The proposed realignment of the bike will relocate the existing outfield fence for the Softball Field #3 and Baseball Field #2 and reduce the outfield by15-feet to 20-feet. This will require a reconfiguration of all four (4) ball fields and potentially a reconfiguration of the parking lot and a portion of the golf course to retain the utility of these two fields. K-1

Design revisions to keep the new bike path in the same footprint as it currently exists should be implemented to eliminate impact to the McEvoy Youth Athletic Fields and significantly reduce total project costs.



ROSE CREEK



Mark Sullivan, Principal Engineer

K-1

MJS Construction Mgmt. & Eng. Inc.
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Response to Comment Letter K

K-1 The comment introduces the Mission Bay Youth Field Association organization and discusses the Rose Creek Bike Path. The commenter states that realignment of the bike path would relocate the existing outfield fence 15 feet to 20 feet, reduce the outfield, and require a reconfiguration of the four ballfields and potentially the parking lot and golf course. The referred to design sheets for the Rose Creek Bike Path component of the Program identifies that following the existing bike path alignment and the improvements to meet City standards would result in movement of the fence into the City-owned fields by up to 20 feet, which would still leave over 115 feet of outfield between the fence and the inner ball fields at the closest point (which is approximately 40 feet more than the existing space between in filed and tennis court fencing). Reconfigurations of ball fields or parking are not anticipated be the City. The City further points out that the design sheets refenced include a note that a more optimal alignment may be possible if the San Diego Mission Bay Boat and Ski Club leasehold and use is not continued, such realignment would align with the commenters desire. This comment does not concern adequacy of the Draft EIR, and no further response is required. However, for the purposes of disclosure, the following text has been added to Chapter 3 Project description of the Final EIR:

"Achieving City standards would result in movement of the existing fence into the City-owned ball fields by up to 20 feet."

Comment Letter L

US 2010 JIMMY DURANTE BOULEVARD, SUITE 230, DEL MAR CA 92014, USA P 619.423.8665
MX BLVD. LASDUNAS #160-203, FRACC. PLAYA ENSENADA, ENSENADA BAJA CALIFORNIA MÉXICO C.P. 22880 T 52.646.1521518
WILDCOAST.ORG | COSTASALVAJE.ORG

Subject: Comment Letter - Mission Bay Park Improvements Program EIR / WBS# B-18079

To: Nancy Graham, Program Manager City of San Diego, Engineering & Capital Projects Department

WILDCOAST is writing to provide public comment on the Draft Program Environmental Impact Report (PEIR) for the Mission Bay Park Improvements Program.

WILDCOAST, founded in 2000, is an international team that conserves coastal and marine ecosystems and addresses climate change through natural solutions. For more than two decades, WILDCOAST has safeguarded some of the most biodiverse and climate-critical coastlines along California and the Mexican Pacific. In the United States—particularly in San Diego County, where our work is deeply rooted—we deliver science-driven conservation, community stewardship, and natural climate solutions that protect marine biodiversity and strengthen the resilience of coastal communities

L-1

We support the Mission Bay Park Improvements Program which makes great strides to the restoration of blue carbon ecosystems and habitat for wildlife in San Diego County. The proposed work in Mission Bay will have a profoundly positive impact on numerous coastal communities, including those throughout the watersheds of which Mission Bay is at the terminus. WILDCOAST is committed to the ecological health of the Mission Bay watershed and has been heavily involved in restoration efforts throughout Rose, San Clemente, and Tecolote Canyons in recent years.

In line with the ongoing restoration of Tecolote Creek specifically, we recommend amending the draft Environmental Impact Report to include the lower portions of Tecolote Creek which abut the **Tecolote Creek and Fiesta Island Causeway** project element. While **we support** the expansion of wetlands and the creation of an earthen-bottom channel under the causeway, we also request that the City expand the scope of this restoration to include the **removal of the concrete-lined channels** that comprise lower Tecolote Creek.

Our request is that these concrete segments be restored to a **natural riparian system** for the following reasons:

1. **Ecological Function:** Replacing concrete with a natural riparian corridor would significantly improve the ecological function both within Mission Bay and throughout the Tecolote watershed. This would facilitate better nutrient filtration and sediment management before water reaches the newly created wetlands at the creek mouth, directly supporting the Program's objective to improve water quality.
2. **Habitat Connectivity:** A natural riparian system would provide a continuous, high-quality habitat corridor for sensitive species. Maintaining an armored concrete channel upstream of a restoration site limits the biological benefits to wildlife that rely on the transition between upland and wetland environments.
3. **Climate Resiliency:** Natural riparian systems are inherently more resilient to the flooding and sea-level rise concerns addressed in the PEIR than rigid concrete infrastructure. A natural system allows for better hydrological adaptation and reduces the risk of long-term infrastructure failure.
4. **Consistency with Master Plan Goals:** Restoring the actual channel of the creek to a natural state better aligns with the Mission Bay Park Master Plan's vision of enhancing the park's environmental assets and preserving natural resource areas. This additional enhancement will help to ensure success for the other project elements outlined in this

L-2

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WILDCOAST.ORG | COSTASALVAJE.ORG

WILDCOAST COSTASALVAJE

Improvements Program, as the Tecolote Creek and Mission Bay are part of a single watershed.

We urge the City to analyze a "Natural Riparian Restoration" alternative for the Tecolote Creek channel to ensure the maximum possible environmental benefit for Mission Bay.

L-2

Thank you for your consideration of these comments.

Sincerely,

David Boehmer
Conservation Ecology Manager
WILCOAST
david@wildcoast.org

Response to Comment Letter L

L-1 The comment introduces WILDCOAST and general support for the Program. No further response is required.

L-2 The comment proposes amending the draft EIR to include lower portions of Tecolote Creek, which abut the Tecolote Creek and Fiesta Island Causeway Element and removal of the concrete-lined channels that comprise the lower creek, to restore the natural riparian system. While this element is not currently proposed as part of the Program, the nature of the PEIR is that use for later activities may be conducted under Section 15168 of the CEQA Guidelines if the later activity is conducted under the Program Implementation Framework and the project is consistent with Section 55.2 of the City Charter. The PEIR does not preclude removal of concrete-lined channels as a potential later phase of restoration, which would be subject to funding and operational approval by the Parks and Recreation Department. Under the Program all components are to within the Improvement Zone for Mission Bay Park, which at Tecolote Creek extends upstream as far as the western edge of the W Morena Boulevard bridge, beyond which any suggested improvements would not be implementable as part of the Program, but may be undertaken by other City projects or programs. No further edits to the PEIR are proposed.

L-3 This comment recommends a Natural Riparian Restoration alternative for the Tecolote Creek. Please see response to comment L-2.

Comment Letter M

Department of Toxic Substances Control

Yana Garcia
Secretary for
Environmental Protection

Katherine M. Butler, MPH, Director
8800 Cal Center Drive
Sacramento, California 95826-3200
dtsc.ca.gov

Gavin Newsom
Governor

SENT VIA ELECTRONIC MAIL

February 6, 2026

Nancy Graham
Program Manager
City of San Diego
8525 Gibbs Drive Suite 302
San Diego, CA 92123
nhgraham@sandiego.gov

RE: DRAFT ENVIRONMENTAL IMPACT REPORT FOR THE MISSION BAY PARK IMPROVEMENTS PROGRAM DATED DECEMBER 16, 2025 STATE CLEARINGHOUSE NUMBER 2024100048

Dear Nancy Graham,

The Department of Toxic Substances Control (DTSC) reviewed Draft Environmental Impact Report (DEIR) for the Mission Bay Park Improvements Program (Project). The Project proposes a resolution of support for the Mission Bay Park Improvement Program. This Improvement Program consists of an Implementation Framework, associated Preliminary Engineering Reports, and associated technical studies to support improvements within the Mission Bay Park Improvement Zone, consistent with Section 55.2 of the City of San Diego Charter. The Improvement Zone encompasses the 4,235-acre Mission Bay Park, along with additional areas in all directions. The Improvement Zone is located within the Mission Bay, Mission Beach and Ocean Beach Community Plan Areas in the City of San Diego. The proposed Project is intended to address issues related to water quality and water circulation improvements, habitat improvements, and visitor-serving improvements. The Program includes the implementation of the following elements: Wetland and Water Quality Restoration, Upland Habitats and Preserves Expansion, Shoreline Restoration, Restoration of

M-1

Seawall Bulkhead, Bicycle and Pedestrian improvements, Deferred maintenance, and a Signage Update. DTSC recommends and requests consideration of the following comments: M-1

1. This site appears to be near a formerly used defense site (FUDS), San Diego River & Mission Bay. It is advised that site information pertaining to the FUDS be reviewed to see if historical uses may have impacted the land and may need to be considered during construction. Site documents may be requested by submitting an inquiry to the U.S. Army Corps of Engineers at: FOIA-SPL@usace.army.mil. M-2
2. DTSC recommends all imported soil/fill material be tested to ensure all COCs meet screening levels as outlined in DTSC's PEA Guidance Manual. Furthermore, DTSC advises referencing the DTSC Information Advisory Clean Imported Fill Material Fact Sheet if importing fill is necessary. To minimize the possibility of introducing contaminated soil/fill material there should be documentation of the origins of the soil/fill material and, if applicable, sampling be conducted to ensure that the imported soil/fill material are suitable for the intended land use. The soil sampling should include analysis based on the source of the soil/fill and knowledge of prior land use. M-3

DTSC would like to thank you for the opportunity to comment on the DEIR for the Mission Bay Park Improvements Program Project. Thank you for your assistance in protecting California's people and environment from the harmful effects of toxic substances. If you have any questions or would like clarification on DTSC's comments, please respond to this letter or via our CEQA Review email for additional guidance. M-4

Sincerely,

Tamara Purvis

Tamara Purvis
Associate Environmental Planner
HWMP - Permitting Division – CEQA Unit
Department of Toxic Substances Control
Tamara.Purvis@dtsc.ca.gov

Nancy Graham
February 6, 2026
Page 3

cc: (via email)

Governor's Office of Land Use and Climate Innovation
State Clearinghouse
state.clearinghouse@lci.ca.gov

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Scott.Wiley@dtsc.ca.gov

Response to Comment Letter M

M-1 The comment introduces the Program, and no response is required.

M-2 The comment states the Program is near a formerly used defense site (FUDS).

Today, the U.S. Department of Defense (DOD) is responsible for the environmental restoration (cleanup) of properties that were formerly owned by, leased to or otherwise possessed by the United States and under the jurisdiction of the Secretary of Defense prior to October 1986. Such properties are known as Formerly Used Defense Sites or FUDS. The U.S. Army is DOD's lead agent for the FUDS Program. USACE executes the FUDS Program on behalf of the U.S. Army and DOD. The U.S. Army and DOD are dedicated to protecting human health and the environment by investigating and, if required, cleaning up potential contamination or munitions that may remain on these properties from past DOD activities.

Discussion of the FUDS has been added to the PEIR, Section 4.7, Health and Safety, as follows:

> "The geographic specific Program components do not overlap with the location (South Fiesta Island) of any FUDS as identified by USACE (USACE 2024) or on the Envirostar database (2026). Deferred maintenance and signage activities would continue to be undertake in a manner sensitive to this feature and no substantial ground disturbance would be associated with those Elements in this location."

The Program does not include any components that overlap with the location provided in the comment link on South Fiesta Island specifically; however, Deferred Maintenance, Signage, and possible future streamlining projects could. These projects would also be subject to soils testing and preparation of a Community Health and Safety Plan as dictated in the City's Whitebook, Section 5-15 Encountering or Releasing Hazardous Substances.

M-3 The Department of Toxic Substances Control recommends testing imported soil/fill material. Sampling would be in accordance with the City's Whitebook, Section 306-3.7, Imported Backfill. If the contractor elects to import material from a source outside the project limits for use as backfill, the backfill material, delivery of samples, suitability, and placement method shall be in accordance with Section 217-2.2 of the Whitebook, which states "You shall identify the source of the proposed material to the Resident Engineer no less than 10 Working Days prior its intended use. The proposed Imported Trench Backfill material shall be clearly described with descriptive soil properties, plant or location, street address, and community of origin." Should the imported material not be substantially the same as the approved sample, it shall not be used for backfill and shall be removed from the work site. Sampling would be conducted under the Program, and no changes to the PEIR are proposed.

M-4 This paragraph concludes the letter, and no response is required.

Comment Letter N

San Diego Bee City USA Committee (the San Diego Pollinator Protection Committee)
jnieh@ucsd.edu

February 12, 2026

City of San Diego
Environmental Review Team (CIP-CEQA)
1222 First Avenue, MS-413
San Diego, CA 92101

Via email: jnieh@ucsd.edu
Subject: MISSION BAY PARK IMPROVEMENTS PROGRAM (MBPIP) EIR/WBS# B-18079: North Fiesta Island Wetlands Conceptual Habitat Restoration and Monitoring Plan, San Diego, California, Draft EIR (November 2025) — Support for CalNBS Comments

Dear Environmental Review Team:

The undersigned participants of the San Diego Bee City USA Committee (also known as the San Diego Pollinator Protection Committee) submit this letter in support of the California Native Bee Society (CalNBS) public comments regarding the Mission Bay Park Improvements Program (MBPIP) Draft EIR for the North Fiesta Island Wetlands Conceptual Habitat Restoration and Monitoring Plan (EIR/WBS# B-18079). N-1

We support the City of San Diego goal of improving wetland habitat at North Fiesta Island. We also agree with CalNBS that the Draft EIR should more directly address avoidance and minimization measures for a dense ground-nesting aggregation of the native bee *Dieunomia nevadensis* ssp. *angelesia* on Fiesta Island.

CalNBS identifies a risk that the project as described could place temporary access routes and soil stockpiling in or near the nesting aggregation, including within the area identified as Stockpile Site 1. Ground disturbance, repeated heavy equipment traffic, and burial or compaction of salt-pan substrate may crush nest tunnels, block airflow, and prevent emergence. N-2

We respectfully request that the Final EIR respond to CalNBS comments and incorporate feasible avoidance and mitigation measures. We support the following refinements, which CalNBS describes as minimal changes that can protect the nesting aggregation while allowing wetland restoration to proceed: N-3

- Avoid intensive ground disturbance and construction activity in and near the nesting aggregation during the bee active flight, foraging, and nesting season (locally concentrated from September through October).
- Avoid soil stockpiling at Stockpile Site 1 (the kelp drying and sand processing area adjacent to the restoration site) and use alternative stockpile locations, such as Sites 2 and 3, or other feasible locations outside the colony footprint.
- Relocate or adjust the temporary construction road and associated staging to increase distance from the nesting aggregation and reduce compaction impacts.

- Install protective fencing and informational signage around the nesting aggregation during construction to prevent inadvertent disturbance by equipment and the public.
- Retain, salvage, and/or re-establish late-season native floral resources used by the bee, including coastal goldenbush (*Isocoma menziesii*), broom baccharis (*Baccharis sarothroides*), and telegraphweed (*Heterotheca grandiflora*), to the greatest extent practicable.
- If avoidance cannot be achieved, evaluate contingency options in coordination with qualified experts, including whether limited soil handling, rescue, or relocation research is feasible and appropriate, with clear monitoring and performance criteria.

N-3 continued

Because this committee includes City participants, we want to be clear about our intent. This letter is submitted as a public comment in the CEQA process and reflects the views of participating members and community partners in their capacity as pollinator advocates. It does not represent an official position or decision of the City of San Diego, the Mayor, the City Council, or any City department.

N-4

Thank you for considering these comments. We appreciate the opportunity to improve wetland habitat while also protecting native pollinators and the ecological functions they support.

Respectfully,

James C. Nieh
Professor, UC San Diego
Chair, San Diego Bee City USA Committee / San Diego Pollinator Protection Committee

Bonnie Nichel
Board Member, California Native Bee Society
Member, San Diego Bee City USA Committee

Muriel Spooner
San Diego Bird Alliance
Member, San Diego Bee City USA Committee

Patricia Simpson
Vegetation Specialist, Cabrillo National Monument
Member, San Diego Bee City USA Committee

Kendal Sager
San Diego Beekeeping Society
Member, San Diego Bee City USA Committee

M.C. Moazed
Habitat Program Manager, Resource Conservation District of Greater San Diego County
Member, San Diego Bee City USA Committee

Response to Comment Letter N

N-1 This comment summarizes the commentor's supportive position regarding the North Fiesta Island Wetlands component as well as alignment with California Native Bee Society comments. Please see responses to comments B-1 through B-3 and J-3. This comment does not concern adequacy of the Draft EIR, and no further comment is required.

N-2 This comment identifies concerns with the stockpile No. 1 location as it relates to a native bee nesting aggregation. Please see responses to comments B-1 and J-3. This comment does not concern adequacy of the Draft EIR, and no further response is required.

N-3 This comment aligns with California Native Bee Society recommendations for inclusion of feasible avoidance and mitigation measures. Please see responses to comments B-2 and J-3. This comment does not concern adequacy of the Draft EIR, and no further response is required.

N-4 This comment concludes the comments and that the group includes City participants but is not City commentary. This comment does not concern adequacy of the Draft EIR, and no further response is required.

Comment Letter O

United States Department of the Interior
U.S. FISH AND WILDLIFE SERVICE
Ecological Services
Carlsbad Fish and Wildlife Office
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

In Reply Refer to:
2025-0031489-CEQA-DEIR-SD

February 12, 2026
Sent Electronically

Jamie Kennedy
Senior Planner
City of San Diego
Engineering and Capital Projects Department
8525 Gibbs Drive, Suite 302
San Diego, California 92123

Subject: Draft Environmental Impact Report for the Mission Bay Park Improvements Program
WBS# B-18079

Dear Jamie Kennedy:

The U.S. Fish and Wildlife Service (Service) is writing in response to the City of San Diego's (City) Notice of Availability (NOA) of a *Draft Environmental Impact Report* (*DEIR*) *for the Mission Bay Park Improvements Program* (Program). We received an extension from the City on February 4, 2026 allowing us to provide comments until February 13, 2026. The Service appreciates the City's flexibility and the additional time.

The Service provided comments on the Notice of Preparation (NOP) for the Program Environmental Impact Report (PEIR) for the Mission Bay Park Master Plan Update (Update; FWS-SDG-17B0418-17TA0912) and subsequently reviewed and commented on the Final Programmatic Environmental Impact Report (PEIR) for the Mission Bay Park Master Plan Update – Fiesta Island Amendment (Amendment; FWS-SDG-17B0418-19TA0639). The Service also provided comments on the NOP for the PEIR for the Program (2025-0031489-CEQA-NOP-SD). Our comments on the DEIR are based on these previous comments, our participation in the June 10, 2021, California Coastal Commission (CCC) hearing and decision on the Amendment, the City's Multiple Species Conservation Program (MSCP) Subarea Plan (SAP), the Mission Bay Master Plan Update (Master Plan; City 2002), the Mission Bay Park Natural Resource Management Plan (Management Plan; City 1990), and our knowledge of the sensitive and declining vegetation communities in the region. O-1

The mission of the Service is working with others to conserve, protect, and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people. The Service also has the legal responsibility for the welfare of migratory birds, anadromous fish, and threatened and endangered animals and plants occurring in the United States and is responsible for administering the Federal Endangered Species Act of 1973 (Act), as amended (16 U.S.C. 1531 *et seq.*), including

habitat conservation plans (HCP) developed under section 10(a)(1) of the Act. The City participates in the HCP program by implementing its approved SAP.

The City, through voter-approved initiatives, created the "Mission Bay Park Improvement Fund" to provide funding to develop, repair, and invest in assets within Mission Bay Park. A list of priority projects, generally referred to as the 'Ten-Year Plan' for Mission Bay Park, was developed by Mission Bay Park Improvement Fund Oversight Committee for the Program. The Program will guide the allocation of the Mission Bay Park Improvement Fund for capital improvement projects within the 164-acre Mission Bay Park Improvement Zone (Improvement Zone) in the westernmost portion of central San Diego. The Improvement Zone is bounded by the communities of Pacific Beach to the north, Ocean Beach to the south, Mission Beach to the west, and Interstate 5 (I-5) to the east.

Program Elements

Wetland and water quality improvements at North Fiesta Island, Tecolote Creek and Fiesta Island Causeway, and Cudahy Creek; with shoreline restoration planned for: (1) Vacation Island Northwest, (2) Vacation Island Northeast, (3) Vacation Island Southwest, (4) Ventura Cove, (5) Crown Point, (6) West Sail Bay, (7) Bonita Cove, and (8) Bahia Point. O-1

Expansion of habitat preserves and upland habitats at Fiesta Island and the San Diego River floodway levee.

Bicycle and pedestrian improvements bay-wide within four key areas: (1) Rose Creek Bike Path, (2) Fiesta Island Causeway, (3) Ocean Beach Bike Path, and (4) Robb Field Gateway Connectivity; and would include installation of missing portions in gaps in bicycle and pedestrian paths, signage, and lighting, as well as parking lot repairs.

Restoration of the seawall bulkhead along the ocean front at Pacific Beach and Mission Beach.

Deferred maintenance and improvements at playgrounds, comfort stations, furnishings, and parking lots.

North Fiesta Island

This letter provides more detailed comments concerning north Fiesta Island than the other areas addressed by the project because the Service has been previously engaged on planning for the Amendment. As noted in our comments on the Amendment, the conservation potential for the North Fiesta Island California least tern [*Sternula antillarum browni* (*Sterna a. b.*); tern] nest site envisioned in the Master Plan and Management Plan has not been realized as evidenced by inconsistent and infrequent tern nesting at the site. Therefore, we recommended enhancement of the North Fiesta Island nest site (nest site).

Subsequent to our comments on the Amendment, we met with the City and CCC to discuss our recommendations, some of which were then incorporated into the May 28, 2021, staff recommendation on the City of San Diego Major Amendment No. LCP-6-SAN-19-0142-2

(Fiesta Island) and the June 9, 2021, Staff Addendum to Item Th9f, Coastal Commission Local Coastal Plan Amendment Application No. LCP-6-19-0142-2. During their June 10, 2021, meeting, the CCC approval of the Amendment adopted modifications which addressed our recommendations to maximize conservation potential and revised Figure 32a (CCC 2021b) to include a seasonal, pedestrian/non-motorized bike open path rather than a year-round, two-lane road. O-2

On November 18, 2024, the Service met with City representatives from both the Planning and Engineering and Capital Projects Departments to discuss proposed components of the Program. At the meeting and in a subsequent December 4, 2024, email, the City staff shared illustrations of the 30 percent design for the North Fiesta Island restoration that incorporated the following project components consistent with our recommendations and the CCC approval of the Amendment: O-3

1. Relocation of the tern nest site from the center of the northern subarea of Fiesta Island (northern subarea) which is disconnected from bay water and surrounded by uplands rife with terrestrial predators, to the west side of the northern subarea connected to the bay waters by a recontoured, gentle (20:1), non-vegetated slope that will better support nesting, roosting, and/or foraging for the tern, the federally threatened western snowy plover {Pacific Coast population DPS [*Charadrius nivosus nivosus* (*C. alexandrinus n.*); plover]}—which is also a covered species under the City's SAP—and other migratory birds.

2. Restoration of tidal marsh on the eastern side of the northern subarea with tidal channels that connect with Mission Bay waters to the north towards the De Anza peninsula. Tidal marsh will benefit terns by creating nursery habitat favorable for estuarine prey fish (e.g., gobies) and providing calm shallow waters for foraging near the nest site. The tidal marsh also will provide nesting and foraging habitat for birds, including the federally and state-listed light-footed Ridgway's (=clapper) rail [*Rallus obsoletus* (=*longirostris*) *levipes*; rail] (which is also a covered species under the City's SAP), and the state listed endangered Belding's savannah sparrow (*Passerculus sandwichensis beldingi*; sparrow), and improve water quality within the adjacent bay waters. O-4

3. Creation of a subtidal channel from west to east separating the northern subarea from the central subarea of Fiesta Island (central subarea) and its associated recreational activity.

4. Inclusion of a gated bridge across the subtidal channel to access the northern subarea from the central subarea that will be seasonally locked during the avian nesting season to preclude recreational access and public utilization of the pedestrian/non-motorized bike and maintenance path that would otherwise disturb nesting birds in both the relocated nest site and restored wetlands. O-5

5. Removal of a paved perimeter road around the entire northern subarea to improve habitat connectivity between Mission Bay's open water and the restored habitats O-6

(i.e., relocated nest area and restored tidal wetlands) and to minimize human disturbance to nesting and roosting birds. O-6

We appreciate the meeting with the City and inclusion of the above recommendations into the 30 percent design. To be fully consistent with our previous recommendations and the modifications to the Amendment approved by the CCC, we recommend that the North Fiesta Island restoration also address the following:

6. Of the two alternatives sent to us via email on December 4, 2024, the configuration of the relocated tern nest site in Alternative 1 is better for nesting success and management because there is not an elevated feature above it that blocks tern line-of-sight into the adjacent restored marsh. The adjacent marsh will provide calm waters supporting fish nursery habitat with small fish that tern fledglings can take advantage of for learning to forage. Alternative 2 has a portion of the nest site extending inland and at a higher elevation than the surrounding areas. This elevated feature will limit the nesting birds' line-of-sight to the marsh and can provide predator perches. It increases the acreage of nesting habitat that will need to be cleared of vegetation to maintain viable nesting. Unfortunately, we have observed that upland vegetation can become established and support predators of least terns in elevated constructed nest sites that are not regularly cleared of vegetation. O-7

7. The nest site should only be accessible to authorized habitat management staff. We request further meetings with the City to discuss access to the northern subarea. Currently, a gated bridge crossing is proposed along the eastern periphery, however, we recommend the bridge should be placed further to the west (closer to the nest site), located in the central subarea and crossing over the subtidal channel into the northern subarea, which would then provide access both northwest to the tern nest site via a permanently gated path and east to the pedestrian/non-motorized bike path which would be seasonally gated. Anti-perching materials should be installed on all gates. Additional pedestrian pathways would be necessary to allow access over anticipated tidal channel locations.

8. Reduce the length of the proposed seasonal pedestrian, bicycle and maintenance path that extends north from the subtidal channel along the eastern side of Fiesta Island from 1,600 feet to 1,320 feet (approximately ¼ mile), consistent with our previous recommendations. A decrease in the path length would, increase available shoreline for tidal connections between the restored tidal wetland and the open waters east of Fiesta Island (see below). O-8

9. Increase the shoreline interface between the tidal wetlands and the open water of Mission Bay on the east side of the northern subarea. Increasing the interface of wetlands and open water will improve water quality in Mission Bay and ensure adequate hydrological connections for the long-term viability of future wetlands. These connections, in addition to the subtidal channel, were introduced in the CCC staff report recommendations (CCC 2021a). O-9

10. Require construction of the relocated tern nest site and restored wetlands in the northern subarea prior to redevelopment of the southern and central subareas of Fiesta Island to maximize habitat and water quality benefits in Mission Bay Park.

11. Install an east-west fence with anti-perching materials across Fiesta Island that extends into bay waters south of the new subtidal channel to protect the northern subarea from recreational trespass during the avian nesting season. Similarly, fence the southern access to the nest sites north of the subtidal channel so that recreational trespass does not disturb roosting migratory birds that utilize the area outside the avian nesting season when the remaining portion of the northern subarea is open to passive recreation. O-10

12. Conduct periodic (e.g., once every 7 years) replenishment/capping of the nest site with 2 feet of beach quality sand (sand which contains less than 5 percent silt and clay) augmented with crushed shells, shells, and driftwood, in coordination with the Service. This will aid in weed control and maintain substrate conditions for nesting terns (Golder *et al*. 2008).

13. Conduct annual management of vegetative cover on the nest site to limit cover to less than 20 percent and vegetative height to less than 16 inches tall (Service 1985; Thompson *et al*. 1997). This cover and height of vegetation allows for unfettered chick movement and protects chicks from exposure to sun and predation but does not provide cover or convenient perches for predators. O-11

14. Install and maintain buoys in the bay water adjacent to the nest site and the restored wetlands to delineate a protected buffer zone, and enforcement to preclude boat access and human disturbance in nesting habitat.

We request that detailed descriptions of the above recommendations be included in the Program and DEIR to maximize the hydrological connections at North Fiesta Island and ensure the long-term viability of the North Fiesta Island tern nest site for terns, plovers, and other shorebirds.

Covered Species

Shoreline modifications may impact covered species and/or their existing beach, shoreline, and wetland habitats, including the rail, sparrow, as well as numerous migratory birds known to utilize the beaches and coastal wetlands in the City for nesting, roosting and/or foraging. We recommend that where possible, existing survey information be used to identify important habitat areas within the Program area, and where appropriate, additional surveys be conducted to determine the number and distribution of federally- and state-listed or other covered or migratory species within the Program area. O-12

The Program should avoid and minimize potential impacts to covered species and their habitats to the extent feasible. The DEIR should evaluate potential impacts and identify conservation measures to avoid and minimize potential impacts to covered species and their habitats consistent with the SAP. For example, conditions of coverage for tern, plover, and rail in the SAP state that area specific management directives must include protection of nest sites from human

disturbance during the reproductive season, and specific measures to protect against detrimental edge effects. Plovers also use the Program area during the non-breeding season, so measures to minimize disruption to roosting flocks must include the non-breeding season.

In addition to compliance with conditions of coverage, the Program and DEIR should demonstrate consistency with the SAP for all proposed Mission Bay Improvements. Relevant elements of Section 1.4 Land Use Considerations and Section 1.5 Framework Management Plan in the SAP, such as general management directives pertaining to restoration should be evaluated for project-level components and also included as a framework to guide future projects in the Program. O-12

Avoidance and Minimization of Impacts to Existing Habitat

All future Program projects, including shoreline improvements that could require filling of open water or wetlands, should be designed to avoid and minimize potential impacts to wetlands and open water consistent with the City's SAP and Biology Guidelines. The Service is particularly concerned with the anticipated impacts to 33 acres of eelgrass identified in the Program preliminary engineering report documents. Impacts to 33 acres of eelgrass would be contrary to the Amendment that recommends the creation of eelgrass beds wherever possible in Mission Bay (CCC 2021b). Further, the DEIR should include a quantitative and qualitative assessment of pre- and post-project habitat acreages and distribution (including summary tables and graphics to depict the acreage and distribution of existing habitat types such as open water, mudflats, eelgrass beds, low-elevation salt marsh, mid- and high-elevation salt marsh, wetland-upland ecotone, dunes, coastal sage scrub, and maritime succulent scrub). O-13

All Program projects should also provide a minimum 100-foot wetland buffer consistent with the City's SAP and Biology Guidelines. A minimum 100-foot buffer will help avoid and minimize edge effects from improper access, lighting, noise, trash, or contaminated run-off that could diminish habitat quality associated with adjacent receiving waters. For example, proposed bicycle or pedestrian paths adjacent to wetland along Rose Creek and the San Diego River should extend only the minimum width necessary and away from the wetland and not include lighting; and symbolic fencing or signage to reduce potential for incursion into the wetland should be included. We request future coordination opportunities as projects are developed under the Program.

While the Service anticipates continued coordination with the City on the design elements of the Program, the circulation of CEQA documents provides the opportunity to review and evaluate subsequent project consistency with the City's SAP. Therefore, we recommend that the following language be added to Program and DEIR: O-14

> "For future projects with biological resources in or adjacent to the project site and the option of tiering from this programmatic document, the City will coordinate with the U.S. Fish and Wildlife Service and the California Department of Fish and Wildlife (i.e., Wildlife Agencies) during the environmental review and permitting process and prior to staff-level CEQA determinations. If the City determines that the appropriate environmental documentation

does not require circulation for public review, the Wildlife Agencies will be provided an opportunity to review and confirm project consistency with the City's SAP."

O-14

Thank you for the opportunity to comment on the DEIRfor the Program. We support the ongoing planning efforts around Mission Bay and encourage coordination between the Program, De Anza Natural Plan and Coastal Resiliency Plan to identify opportunities to maximize the restoration or creation of wetlands and eelgrass beds for the benefit of habitat and water quality in balance with the development necessary to address water quality, recreation, and coastal resiliency. We appreciate the continued partnership with the City and are available to provide assistance in the planning of future projects, particularly those that may impact open water, wetland, and SAP-covered species. If you have questions or concerns regarding this letter, please contact Anita Eng[1] of our office.

O-15

Sincerely,

DAVID ZOUTENDYK Digitally signed by DAVID ZOUTENDYK 026.02.12 15:10:32

for Jonathan D. Snyder
Assistant Field Supervisor

cc:
Kelly Fisher (California Department of Fish and Wildlife)
Melanie Burlaza (California Department of Fish and Wildlife)
Dan Monroe (City of San Diego, Planning Department)
Alexander Llerandi (California Coastal Commission)
Andrew Meyer (San Diego Bird Alliance)
Nancy Graham (City of San Diego, Engineering and Capital Projects)

[1] anita_eng@fws.gov.

LITERATURE CITED

[CCC] California Coastal Commission. 2021a. Staff recommendation on the City of San Diego Major Amendment No. LCP-6-SAN-19-0142-2 (Fiesta Island) for Commission Meeting of June 10, 2021. May 28.

[CCC] California Coastal Commission. 2021b. Item Th9f. Coastal Commission Local Coastal Plan Amendment Application No. LCP-6-SAN-19-0142-2 (Fiesta Island). Exhibits for the Commission Meeting. June 10.

[City] City of San Diego. 2002. Mission Bay Master Plan Update. Adopted August 2, 1994 by Resolution No.s R-284398 R-284399 R-284400 Amendments Adopted August 1, 1995, Resolution No. 286199 May 13, 1997, Resolution No. 288657 July 9, 2002, Resolution No. 296786

[City] City of San Diego. 1990. Mission Bay Park Natural Resource Management Plan. Park and Recreation Department.

Golder, W., D. Allen, S. Cameron, T. Wilder. 2008. Dredged Material as a Tool for Management of Tern and Skimmer Nesting Habitats. U.S. Army Engineer Research and Development Center, Coastal and Hydraulics Laboratory, 3909 Halls Ferry Road, Vicksburg, MS, 39180-6199 Report Number ERDC TN-DOER-E24. 16 pages.

Thompson, B.C., J.A. Jackson, J. Burger, L.A. Hill, E.M. Kirsch, and J.L. Atwood. 1997. Tern (*Sterna antillarum*). In: The Birds of North America, No. 290 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, Pennsylvania, and The American Ornithologists' Union, Washington, D.C. 32 pp.

[Service] U.S. Fish and Wildlife Service. 1985. Revised California tern recovery plan. U.S. Fish and Wildlife Service, Region 1, Portland, Oregon.

Response to Comment Letter O

O-1: The comment introduces the U.S. Fish and Wildlife Services (USFWS) and its role in providing comments on the Draft EIR for the Program, understanding of the Program and the elements therein, and focus on the North Fiesta Island components of the Program. The comment is noted, and no response is required

O-2: The comment summarizes prior commentary by USFWS regarding the North Fiesta Island components of the Program. This comment does not concern adequacy of the Draft EIR, and no further response is required.

O-3: The comment identifies specific prior comments from USFWS regarding the North Fiesta Island components of the Program and details consistent with prior recommendations starting with relocation of the tern nest site to have a gentle 20:1 slope. The recommended slope grade has been incorporated into the Fiesta Island Site No. 4 component of the Upland Habitat and Preserve Expansion Element of the Program, as provided in the PER for this Element (page 45 and Figure 4-5 of Appendix F to the PEIR). This comment does not concern adequacy of the Draft EIR, and no further comment is required.

O-4: The comment identifies specific prior comments from USFWS regarding the North Fiesta Island components of the Program, specifically details regarding tidal marsh restoration and north channel. The recommended subtidal marsh and north channel has been incorporated into the North Fiesta Island Wetlands component of the Wetlands and Water Quality Element of the Program, as provided in the PER for this component (page 18 and Figure 4-1 of Appendix B to the PEIR). This comment does not concern adequacy of the Draft EIR, and no further response is required.

O-5 This comment identifies specific prior comments from USFWS regarding the North Fiesta Island components of the Program, specifically details regarding subtidal channel and seasonally gated bridge. The recommended channel and seasonal bridge has been incorporated into the North Fiesta Island Wetlands component of the Wetlands and Water Quality Element of the Program, as provided in the PER for this component (pages 18 and 27 and Figure 4-1 of Appendix B to the PEIR). This comment does not concern adequacy of the Draft EIR, and no further response is required.

O-6 This comment identifies specific prior comments from USFWS regarding the North Fiesta Island components of the Program, specifically details regarding perimeter road around entire northern area gated bridge. The recommended removal of the referenced perimeter road has been incorporated into the North Fiesta Island Wetlands component of the Wetlands and Water Quality Element of the Program, as provided in the PER for this component (pages 18 and 27 and Figure 4-1 of Appendix B to the PEIR). This comment does not concern adequacy of the Draft EIR, and no further response is required.

O-7 This comment identifies further recommendations from USFWS regarding the North Fiesta Island components of the Program, specifically details regarding relocation of the tern site, preferring site design alternative 1, and access thereto, recommending moving the bridge westward. The recommendation for site design alternative 1 aligns with the proposed project in the PEIR and

the updated North Fiesta Island Wetlands component of the Wetlands and Water Quality Element of the Program, as provided in the PER for this component (pages 18 and 27 and Figure 4-1 of Appendix B to the PEIR) includes a bridge for only authorized personal at the west side to the tern site. This comment does not concern adequacy of the Draft EIR, and no further comment is required..

O-8 This comment identifies further recommendations from USFWS regarding the North Fiesta Island components of the Program, specifically to shorten the seasonal access road from 1,600 to 1,320 feet. The updated North Fiesta Island Wetlands component of the Wetlands and Water Quality Element of the Program, as provided in the PER for this component (pages 18 and 27 and Figure 4-1 of Appendix B to the PEIR) includes a perimeter road of 1,320 feet in length including the overlook. Adding the length of the eastern bridge would give a calculated length of 1,470 feet. Clarifications and/or revisions to the measured items can be achieved through final design. This comment does not concern adequacy of the Draft EIR, and no further comment is required.

O-9 This comment identifies further recommendations from USFWS regarding the North Fiesta Island components of the Program, specifically to widen the shoreline interface at the east side of North Fiesta Island. The updated North Fiesta Island Wetlands component of the Wetlands and Water Quality Element of the Program, as provided in the PER for this component (Figure 4-1 of Appendix B to the PEIR) includes a connected interface. Additional connections or increased lower marsh opportunities may be achieved through final design, may be related to recommendations regarding, and/or constrained by, the new access road. This comment does not concern adequacy of the Draft EIR, and no further comment is required.

O-10 This comment identifies further recommendations from USFWS regarding the North Fiesta Island components of the Program, specifically complete the relocated tern site first, and recommendations for anti-perching fencing. The timing and sequence of Program components is not prescribed in the EIR; however the description assumes alignment with this comment (see page 3-33 of the PEIR). Specifications may be included in final design to include anti-perching for fencing. This comment does not concern adequacy of the Draft EIR, and no further comment is required.

O-11: This comment identifies further recommendations from USFWS regarding the North Fiesta Island components of the Program, specifically to manage and maintain the least tern site and buffer thereto as well as description thereof in the PEIR. General maintenance and management is described in the PEIR (page 3-38). These specific management and ongoing maintenance recommendations may be considered through permitting, final design and specifications for the Fiesta Island Site No. 4 component. This comment does not concern adequacy of the Draft EIR, and no further comment is required.

O-12: This comment identifies that shoreline modification may impact 'covered species,' and the PEIR should evaluate those impacts and identify conservation measures and consistency with the SAP. The Biological Resources Section (4.2) of the PEIR summarizes the results of bay-wide surveys and potential for occurrence, as well as impacts to covered species (issue 1) and conflicts with the SAP (issue 5) that are detailed in the Biological Resources Technical Report (Appendix M to the PEIR). Further, the PEIR identifies mitigation measures that include focused surveys (MM-BIO-1), including

various covers species-specific presence/absence surveys; SAP consistent requirements during construction (MM-BIO-3); listed species take avoidance (MM-BIO-8) including the three avian species identified by USFWS (MM-BIO-8C [tern and plover] and MM-BIO-8D [rail]). At the program level, while ultimately the Program overall would be beneficial to covered species biodiversity and all mitigation and conservation measures would be employed, because the timing of impacts and restoration implementation are uncertain, impacts are determined to be significant and unavoidable (see PEIR page 4.2-105) to covered species and SAP conflict (see PEIR page 4.2-107).

O-13: The comment identifies shoreline improvements should be designed to avoid and minimize potential impacts to wetlands and open water consistent with the City SAP Guidelines, and components (Rose Creek Bike Path for example) maintain 100-foot buffer from wetlands and avoid lighting and include fencing. All shoreline activities would be designed to avoid and minimize impacts to eelgrass consistent with City SAP Guidelines as well as subject to mitigation framework MM-BIO-5 that identifies updating surveys, and development of a Mitigation Plan for approval by the National Marine Fisheries Service and CDFW as well as compensatory requirements. Further the Program includes up to 177 acres of new or improved wetlands components, some of which include eelgrass areas. At the program level, while ultimately the Program would result in a net positive of eelgrass and all mitigation and conservation measures would be employed, because the timing of impacts and restoration implementation are uncertain, impacts are determined to be significant and unavoidable to wetlands including eelgrass and SAP conflicts (see PEIR page 4.2-107). Specific constraints present along the existing Rose Creek Bike Path may not be comprehensively remedied by the Program component there, and the physical limitations may exist prohibiting remedy. The SAP guidelines and wetland buffer recommendations would be considered through permitting, final design, and specifications for all Elements and components, including the Bicycle and Pedestrian Improvements Element, as well as the Rose Creek component.

O-14: The comment provides specific language the USFWS recommends be included in the Final PEIR. In response to the comment as recommended, the City has included the following language to Appendix K, the Implementation Framework Section 4.2.

> "For future projects with biological resources in or adjacent to the project site and the option of tiering from this programmatic document, the City will coordinate with USFWS and CDFW (Wildlife Agencies) during the subsequent environmental review and permitting process. ."

O-15: The comment concludes the USFWS comments, thanking the City for the opportunity and promoting continued coordination. The comment is noted and no response is required.

Comment Letter P

Comment Letter P

San Diego County Archaeological Society, Inc.

Environmental Review Committee

January 29, 2026

To: Ms. Jamie Kennedy
Engineering and Capital Projects
City of San Diego
8525 Gibbs Drive, Suite 302
San Diego, California 92123

Subject: Draft Environmental Impact Report
Mission Bay Park Improvements Program
Project No. B-18079

Dear Ms. Kennedy:

I have reviewed the cultural resources aspects of the subject DEIR on behalf of this committee of the San Diego County Archaeological Society. P-1

Based on the information contained in the DEIR and its Appendix N, we agree with the cultural resources impact analysis and with the recommended mitigation measures for the seawall and Rose Creek portions of the program.

However, for built environment elements of the Park, the 45- and 50-year threshold for resources (not just buildings) to be considered potentially significant is a moving target and may require future evaluations under CEQA. Considering that the program/project will be implemented over a number of years, the DEIR needs to address this possibility. Perhaps, as the name of this project admits, this should have been a Programmatic EIR.

Thank you for the opportunity to offer our comments.

Sincerely,

James W. Royle, Jr., Chairperson
Environmental Review Committee

cc: SDCAS President
File

P.O. Box 81106 San Diego, CA 92138-1106 (858) 538-0935

Response to Comment Letter P

O-1: The comment states the San Diego County Archaeological Society agrees ie4th the cultural resources impact analysis and with the recommended mitigation measures for the seawall and Rose Creek portions of the program. The comment also states that for built environment elements of the Park, the 45- and 50-year threshold for resources (not just buildings) to be considered potentially significant is a moving target and may require future evaluations under CEQA, which the Draft EIR needs to address. In response to this comment, the following environmental protocol has been added to the Appendix K the Implementation Framework, Section XX.

> "EP-CUL-2 Historic Resources: Prior to issuance of a Site Development Permit, the PE will consult the Land Development Code Historical Resources Guidelines to determine whether historic resources are present."

SUMMARY OF CHANGES TO EIR

Table RTC-2 identifies the changes and location of those changes made in the Final EIR as compared to the Draft EIR, in response to comments and to make clarification corrections to the text.

Table RTC-2
Changes to the EIR

EIR Section	Page #	Revision (strikeout/underline text, or note as to any revisions made to a figure)	Recirculation triggered?
3 Project Description	3-2	The Rose Creek component of the Wetlands and Water Quality Element is not a part of the improvements at this time because the planning process for DeAnza Cove is underway and occurring separately from this effort.	No
3 Project Description	3-39	Retaining walls or concrete barriers are not proposed for the Ocean Beach Bike Path ~~and the Rose Creek Bike Path~~ improvements. However, retaining walls may be required for the Rose Creek Bike Path pending further geotechnical retaining wall and allowable fill slope requirements adjacent to Rose Creek.	No
3 Project Description	3-39	The lowest point of Rose Creek Bike Path is under the bridges at elevations of 3 feet AMSL under Garnet and 1 foot AMSL under Grand Avenue.	No
3 Project Description	3-40	Achieving City standards would result in movement of the existing fence into the City-owned ball fields by up to 20 feet.	No
4.2 Biological Resources	Tables 4.2-20 through 4.2-35	(acres)	No
4.2 Biological Resources	4.2-69	While the program overall and each component would enhance biological resources in conformance with the requirements of the MSCP SAP, because there would be instances where components temporarily impact MSCP SAP designated resources and for which the duration between impact and restoration cannot be determined at this time, this temporary impact would be **significant**.	No
4.7 Health and Safety	4.7-27	The geographic specific Program components do not overlap with the location (South Fiesta Island) of any	No

Table RTC-2
Changes to the EIR

EIR Section	Page #	Revision (strikeout/underline text, or note as to any revisions made to a figure)	Recirculation triggered?
		FUDS as identified by USACE (USACE 2024) or on the Envirostar database (2026). Deferred maintenance and signage activities would continue to be undertake in a manner sensitive to this feature, and no substantial ground disturbance would be associated with those Elements in this location. Refs: USACE 2024 - fudsportal.usace.army.mil/ems/inventory/map?id=61174 EnviroStor 2026 - https://www.envirostor.dtsc.ca.gov/public/profile_report.asp?global_id=80000459	
5 Cumulative, 5.1.2 Biological Resources	5-8	As analyzed in Section 4.2, the Program would result in potentially significant impacts to biological resources that would be reduced ~~to a less-than-significant level~~ with implementation of **MM-BIO-1** through **MM-BIO-8**. The Program would provide a net benefit to the vegetation communities in the Improvement Zone by conversion of existing disturbed areas or open water to high-functioning native habitats or enhancement of habitat through the removal and control of invasive species. These restoration areas may be credited as mitigation to offset permanent or temporary impacts. Therefore, while components may result in temporary impacts, the resolution of which is uncertain in timing resulting in significant and unavoidable impacts at a Program level, cumulatively because the Program would minimize impacts to sensitive vegetation communities and demonstrates consistency with Subarea Plan requirements, the Program would not result in a cumulatively	No

Table RTC-2
Changes to the EIR

EIR Section	Page #	Revision (strikeout/underline text, or note as to any revisions made to a figure)	Recirculation triggered?
		considerable impact to sensitive habitats. Additionally, the Program proposes to maintain and enhance existing physical wetland buffers; therefore, providing a net benefit to the functions and values of the aquatic resources in the Mission Bay Park Improvement Zone (Improvement Zone).	
Appendix K		Text added to end of the first paragraph of Section 4.2: <u>For future projects with biological resources in or adjacent to the project site and the option of tiering from this programmatic document, the City will coordinate with USFWS and CDFW (Wildlife Agencies) during the subsequent environmental review and permitting process.</u>	No
Appendix K		Additional Environmental Protocols (EPs): *EP-LU-2 Lighting Standards* New lighting shall comply with Land Development Code Section 142.0740 (Outdoor Lighting Regulations), and wherever feasible, the 5 principles of Dark Skies shall be incorporated in the final design for all lighting proposed as part of a Program component. *EP-BIO-4 Plastic Free Materials* Materials intended for long term aquatic use within restored shorelines or habitats such as oyster bags, oyster balls, oyster cages, or similar shall be constructed using plastic free materials to the maximum extent feasible. *EP-HYD-3 Sea Level Rise Considerations* During the preparation of the final design for a Program component and prior to issuance of a Site Development Permit, the PE will ensure that the design consultant has	No

Table RTC-2
Changes to the EIR

EIR Section	Page #	Revision (strikeout/underline text, or note as to any revisions made to a figure)	Recirculation triggered?
		completed updated sea level rise modeling using the latest available data and science to ensure final designs are adequately resilient and adaptable to projected sea level rise at the component site. The PE shall consider the use of nature-based solutions to reduce the use of hardscape features whenever feasible and shall utilize environmentally friendly and resilient materials in the final design whenever feasible.	
Appendix K		Revised Environmental Protocol: *EP-HYD-1 Drainage Report and Special Flood Hazard Areas* Prior to applying for a Site Development Permit for projects under the Improvement Program that will modify the existing drainage patterns of the site, the PE will ensure a Drainage Report is prepared per the requirements of the City's Land Development Manual (Appendix B Drainage Design Manual). The drainage report shall address the proposed drainage conditions as compared to the existing drainage conditions at the time of plan approval. This is to include but is not limited to hydrology studies, hydraulic design, plan and profile plots, drawings showing the existing and proposed drainage facilities, sediment analysis, and any other relevant requirements. In addition to a Drainage Report, prior to issuance of a Site Development Permit for projects within the Special Flood Hazard Area, ECP shall submit to the Floodplain Manager either of the following, in accordance with City of San Diego regulations for Special Flood Hazard Areas: 1. A No Rise report and certificate clearly indicating that the effective flood risk (i.e., Hybase flood elevations and floodplain mapping) will remain unchanged.	

Table RTC-2
Changes to the EIR

EIR Section	Page #	Revision (strikeout/underline text, or note as to any revisions made to a figure)	Recirculation triggered?
		2. If the results indicate the flood risk will change, a CLOMR will be required. *EP-CUL-2 Historic Resources* Prior to issuance of a Site Development Permit, the PE will consult the Land Development Code Historical Resources Guidelines to determine whether historic resources are present.	
Appendix K5	26	"...a ~~Letter of Permission~~ Scientific Collection Permit to collect..."	No

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EXECUTIVE SUMMARY

This chapter provides a summary of the Mission Bay Park Improvements Program (Program), the environmental effects of which are evaluated in this environmental impact report (EIR). This EIR evaluates the Program in accordance with Sections 15120–15132 and 15168 of the California Environmental Quality Act (CEQA) Guidelines. The Program is the implementation of the voter-approved Section 55.2 of Article V of the City of San Diego City Charter, which specified the projects and priorities for improvements throughout the Mission Bay Park Improvement Zone (Improvement Zone).

ES.1 PURPOSE AND SCOPE OF THE EIR

The purpose of this EIR is to evaluate the Program in accordance with Sections 15120–15132 of the CEQA Guidelines. Further, Section 15168 of the CEQA Guidelines identifies circumstances where a program EIR may be prepared, as follows:

> (a) General. A program EIR is an EIR which may be prepared on a series of actions that can be characterized as one large project and are related either:
>
> (1) Geographically,
>
> (2) As logical parts in the chain of contemplated actions,
>
> (3) In connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program, or
>
> (4) As individual activities carried out under the same authorizing statutory or regulatory authority and having generally similar environmental effects which can be mitigated in similar ways.

The Program as summarized below and described further in Chapter 3, is a series of geographically connected projects collectively under the program as one large project. This EIR provides for combination of analysis levels, with site-specific elements (see ES.4 and Chapter 3 for more description of the elements) herein addressed at the project level, and Bay-wide elements at the program level or provided for disclosure purposes.

ES.2 PROJECT LOCATION AND SETTING

The Program location consists of the Improvement Zone, as defined in City Charter Section 55.2. Regionally, the Improvement Zone is located in the coastal westernmost portion of central City of San Diego, bounded by the communities of Pacific Beach to the north, Ocean Beach to the south, Mission Beach to the west, and Interstate (I) 5 to the east. The Improvement Zone encompasses

Mission Bay Park and additional adjacent areas in all directions. Within the Improvement Zone are various identified sites for known discrete projects (or 'elements') within the program to be analyzed under this EIR, as well as Bay-wide elements identified for disclosure purposes, including deferred maintenance and a comprehensive update to the signage throughout Mission Bay Park. Regional access is provided by I-5 from the north and south, and I-8 from the east. Access to each individual element of the program is provided by local roadways throughout and surrounding Mission Bay Park.

ES.3 PROJECT OBJECTIVES

The following project objectives for the Program are based on the goals of Section 55.2 of Article V of the City of San Diego City Charter:

1. Improve the water quality of Mission Bay Park through wetland expansion, water quality improvements, and the protection and expansion of eelgrass beds as identified in the Mission Bay Park Master Plan.
2. Identify inadequate and failing shorelines within Mission Bay Park, and prioritize shoreline restoration treatments, including restoration of beach sand and stabilization of erosion control features.
3. Expand endangered or threatened species preserves and upland habitats in areas identified in the Mission Bay Park Master Plan, including on North Fiesta Island, along the levee of the San Diego River floodway, and other opportunity areas.
4. Implement deferred maintenance projects, including but not limited to, maintenance and regular replacement of recreational and public safety facilities, to the benefit of park users.
5. Assess deficiencies and gaps in the existing bicycle and pedestrian circulation network to improve overall circulation, safety, and enjoyment of bicyclists and pedestrians in Mission Bay Park.
6. Restore the seawall bulkhead on Oceanfront Walk to a condition no less than the quality of restoration previously performed in 1998 from Thomas Street to Pacific Beach Drive or to conditions as may be required by historic standard.

ES.4 PROJECT DESCRIPTION

The proposed Program is intended to address issues related to water quality and water circulation improvements, habitat improvements, and visitor-serving improvements, in specifically identified areas. The Program includes the implementation of the following elements: wetland and water quality improvements, restoration of shoreline, upland habitat and preserve expansion, bicycle and

pedestrian improvements, restoration of seawall bulkhead, deferred maintenance, and signage update. A Preliminary Engineering Report (PER) was prepared up to 30% complete design for each of these location-specific elements, and a deferred maintenance PER was prepared to aid in the programming of completing that maintenance. A comprehensive signage update (design and locations) was also completed. The proposed project is an improvements program (the Program) with specific elements to be implemented throughout Mission Bay Park. The Program is inclusive of site-specific project elements and Bay-wide programmatic elements.

Certain elements in the Improvement Zone are located in areas that are the subject of the Mission Bay Park Master Plan (Master Plan) amendments, specifically Fiesta Island. The Fiesta Island Mission Bay Parks Master Plan amendment was completed in 2022 and elements herein on Fiesta Island are designed and evaluated in relation to that amendment.

ES.4.1 WETLAND AND WATER QUALITY IMPROVEMENTS ELEMENT

These provide new or enhanced wetlands promoting water quality and habitat improvements focused on the following specific locations:

A. North Fiesta Island,

B. Tecolote Creek and Fiesta Island Causeway, and

C. Cudahy Creek.

Improvements involve creating or expanding wetlands habitats, increasing channels including, through the Fiesta Island causeway and through the north end of Fiesta Island, establishing native wetlands plant species, and designing for resiliency with transition of wetland habitats overtime (for example high marsh to low marsh).

ES.4.2 RESTORATION OF SHORELINE ELEMENT

A Bay-wide assessment was conducted of the need for shoreline preservation, which identified areas where erosion and or other damage has resulted in the need for improvements. The needs were prioritized in the following specific locations:

A. Vacation Island NW,

B. Vacation Island NE,

C. Vacation Island SW,

D. Ventura Cove,

E. Crown Point,

F. West Sail Bay,

G. Bonita Cove, and

H. Bahia Point.

Improvements include a mix of nature-based and traditional solutions to protect the Bay shoreline. Nature-based approaches involve dunes and oyster beds, while traditional hard solutions include replacing riprap and extending the seawall. Softer measures, such as beach nourishment, cobble berms, and groins, are also proposed for certain areas requiring shoreline protection.

ES.4.3 UPLAND HABITAT AND PRESERVE EXPANSION ELEMENT

This element too initially involved an assessment of opportunities suitable for expanding upland habitat and upland habitat preserves. The following specific locations are identified:

A. Site No.1 Fiesta Island South

B. Site No. 2 Fiesta Island Central

C. Site No.3 Fiesta Island Near Youth Camping

D. Site No.4 Fiesta Island Least Tern Preserve

E. Site No.5a Cloverleaf Enhancement Area

F. Site No.5b Triangle Enhancement Area

G. Site No.5c South Shores Restoration and Enhancement Area

The improvements would involve planting native plant species and enhancing soil conditions for the suitability of local wildlife.

ES.4.4 BICYCLE AND PEDESTRIAN IMPROVEMENTS ELEMENT

The element addressing bicycle and pedestrian improvements focuses on four locations where connectivity gaps or substandard conditions exist, as follows:

A. Rose Creek Bike Path,

B. Fiesta Island Causeway,

C. Ocean Beach Bike Path,

Improvements in these areas would include improving or creating pavement conditions, widening bike/pedestrian paths to meet City standards, and enhancing the connectivity and experience of cycling or walking in and around Mission Bay Park.

ES.4.5 RESTORATION OF SEAWALL BULKHEAD ELEMENT

The restoration of the seawall bulkhead element would occur along the oceanfront at Pacific Beach and Mission Beach. Two existing segments totaling approximately 9,780 linear feet would see parapet replacement and voids repair, a third segment of approximately 375 feet would be added as new seawall from Thomas Avenue to Crystal Pier, up to 14 existing beach access points would be replaced with code conforming stairways or Americans with Disabilities Act (ADA) compliant access ramps, and a new vehicular access would be created at the end of Thomas Avenue.

ES.4.6 DEFERRED MAINTENANCE ELEMENT

The deferred maintenance element would occur Bay wide and include ongoing maintenance of the following facilities: playgrounds, comfort stations, furnishings, and parking lot repairs (including stormwater best management practices, called BMPs). Maintenance activities would include but not be limited to ADA-compliant access ramp repair; parking lot pavement, including stormwater improvements such as biofiltration options; bench repair/replacement; picnic table repair/replacement; lighting sustainability enhancements; fire pit and hot coal disposal replacement; playground equipment repair/maintenance; and comfort station repair/replacement.

ES.4.7 SIGNAGE UPDATE ELEMENT

The signage update element improvements include a comprehensive update to the design and location of signs throughout Mission Bay Park.

ES.5 AREAS OF CONTROVERSY

Pursuant to Section 15082 of the CEQA Guidelines, a Notice of Preparation for the Program was released for public review from October 1, 2024, to November 1, 2024. The City held a public scoping meeting on October 16, 2024. During public review of the Notice of Preparation and during the public scoping meeting, no significant areas of controversy were identified. Comments received during the public scoping period generally requested attention to consistency with other planning documents in the EIR; inclusion of Rose Creek above Grand Avenue in the project; expressed concern with pathway lighting, concerns about inclusion of the Rose Creek area in the EIR; concerns around timing with the City's Climate Action Plan; request to engage Native American tribes; requests for specific project features or details such as stairs to the beach in the Fiesta Island off-leash dog park area; and others.

ES.6 PROJECT ALTERNATIVES

Alternatives are discussed in further detail in Chapter 6, Alternatives. Below is a summary of the Alternatives analyzed in Chapter 6 and the Alternative determined to be the environmentally superior alternative.

ES.6.1 NO PROJECT/NO BUILD ALTERNATIVE

Under the No Project/No Build Alternative, the Mission Bay Park Improvements Program would not be approved by the City Council, and none of the Elements or Components would be constructed. Standard operation and maintenance activities would occur at many of the improvement project locations; however, this would be consistent with the activities that currently occur and would not represent a change from existing conditions. Certain activities, such as bike path improvements (i.e. repaving, striping, or widening), may occur under the City's ongoing maintenance programs or under the capital improvement project program.

ES.6.2 INCREASED PUBLIC ACCESS ALTERNATIVE

The Increased Public Access Alternative would include two alternative designs for two improvement projects as part of the Program. The first alternative design would reduce the amount of restoration area proposed for the South Shores area of Mission Bay, only retaining a small area for the preservation of Nutall's Lotus habitat. This design would allow for public access to most of the central portion of South Shores area, consistent with existing conditions, and would propose a limited area for restoration and habitat protection, reduced compared to the Program. The second portion of the alternative design for this alternative is the development of a culvert instead of a channel and a bridge over Tecolote Creek for the Tecolote Creek/Fiesta Island Causeway Wetland Component. This alternative design would allow for less disruption to the traffic on the causeway but would result in reduced water flow compared to the proposed open channel that is part of the proposed Program.

ES.6.3 REDUCED HARDSCAPE ALTERNATIVE

This alternative would reduce the amount of proposed "hardscape" development; i.e., it would reduce the amount of human-made structural solutions for erosion, water quality improvement, and water flow, and instead propose nature-based solutions for certain areas identified for improvement. The certain areas are listed and described below:

Crown Point Living Shoreline

The Crown Point Living Shoreline design portion of this alternative would incorporate a nature-based shoreline protection solution for erosion control and beach stabilization at the Crown Point

Shoreline Restoration Site. This proposed alternative would include the development of a cobble foundation that would be used to protect the beach from wave activity, to reduce erosion and hold the shoreline position. This nature-based solution would also include beach nourishment to cover the cobble foundation, providing further wave protection and improving public beach and water access. This alternative design can provide protection for several years but will endure continuous erosion and will need to be re-nourished in the future.

This design option would replace the Crown Point Shoreline Restoration site proposed as part of the Program, which would construct an extension to the existing seawall along the shoreline at Crown Point, west of Ingraham Street.

Mission Beach/Pacific Beach Coastal Dunes

The Mission Beach/Pacific Beach Coastal Dunes design option would develop coastal dunes along the existing seawall between Balboa Court and Grand Avenue. Instead of parapet replacement along Segment A and Segment B of the seawall bulkhead, from Balboa Court to Thomas Avenue, as is proposed in the Program, this alternative would develop coastal dunes on the beach to the west of the seawall and boardwalk. The existing seawall bulkhead would be left in place. Instead of a new seawall along Segment C, this alternative would develop coastal dunes along the beach to the west of the boardwalk. This alternative design would be similar to the winter sand berms that are currently built during winter months to protect the boardwalk, with the crest reaching approximately 5 feet above ground level. The dunes would be seeded or planted with an appropriate plant palette mix for coastal dunes in the area. The dunes would be constructed with openings to allow for public access to the beach that would coincide with the existing public access pathways along the boardwalk; however, this design alternative would not include the construction of enhanced ADA-compliant access pathways or ramps.

This design alternative would replace the Restoration of the Seawall Bulkhead Element of the proposed Program.

ES.6.4 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines, Section 15126.6(e)(2), requires the identification of an environmentally superior alternative among the alternatives analyzed in an EIR. The guidelines also require that if the No Project Alternative is identified as the environmentally superior alternative, then another environmentally superior alternative must be identified among the other alternatives.

Based on the comparison of project impacts, the No Project/No Build Alternative would result in no impacts identified as significant and unavoidable or less than significant with mitigation incorporated and would result in reduced impacts compared to the Proposed Program; as such, it

would be identified as the environmentally superior alternative. However, the No Project/No Build Alternative would not result in any environmentally beneficial improvements.

Among the remaining alternatives, the Reduced Hardscape Alternative would reduce the most potentially significant impacts compared to the proposed Program, including the significant and unavoidable short-term construction noise impact associated with the Restoration of the Seawall Bulkhead Element. Due to these reductions of potentially significant impacts identified in this EIR, the Reduced Hardscape Alternative is identified as the environmentally superior alternative among the other alternatives.

ES.7 SUMMARY OF SIGNIFICANT IMPACTS AND MITIGATION

Table ES-1, Summary of Program Impacts, summarizes the conclusions of the environmental analysis in the EIR. Impacts are identified as significant or less than significant, and mitigation measures are identified for all significant impacts. The level of significant after implementation of the mitigation measures is also presented

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Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		Air Quality	
Would the project conflict with or obstruct the implementation of the applicable air quality plan?	Potentially Significant	**MM-AQ-1: Construction Off-Road Equipment Exhaust Minimization.** Prior to the issuance of any construction or development permits or any construction contracts, the City of San Diego (City) Engineering & Capital Projects Department (ECP) or its designee shall ensure that all 50-horsepower or greater diesel-powered off-road construction equipment are powered with California Air Resources Board (CARB)-certified Tier 4 Final engines or better. An exemption from this requirement may be granted by the City ECP if (1) the City ECP documents equipment with Tier 4 Final engines are not reasonably available, and (2) the required corresponding reductions in criteria air pollutant emissions can be achieved for the project from other combinations of construction equipment. Before an exemption may be granted, the City ECP shall (1) demonstrate that at least three construction fleet owners/operators in San Diego County were contacted and that those owners/operators confirmed Tier 4 Final equipment could not be located within San Diego County during the desired construction schedule, and (2) the City ECP shall provide evidence to Environmental Designee (ED) that the proposed replacement equipment has been evaluated using California Emissions Estimator Model (CalEEMod) or other industry standard emission estimation method, and documentation has been provided to ED to confirm that necessary project-generated emissions reductions are achieved. **MM-AQ-2: Construction Dust Control.** The City of San Diego Engineering & Capital Projects Department (ECP) or its designee shall provide evidence to ED that construction dust control practices beyond the requirements of San Diego Air Pollution Control District (SDAPCD) Rule 55, Fugitive Dust Control, would be employed	Less Than Significant with Mitigation

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		to reduce fugitive dust emissions, including watering of the active sites three (3) times per day depending on weather conditions.	
Would the project result in a violation of any air quality standard or contribute substantially to an existing or projected air quality violation?	Potentially significant	**MM-AQ-1** and **MM-AQ-2** (same as above)	Less Than Significant with Mitigation
Would the project expose sensitive receptors to substantial pollutant concentrations, including toxic air contaminants (TACs)?	Potentially Significant	No mitigation measures are required.	Less Than Significant with Mitigation
Would the project create	Less than significant	No mitigation measures are required.	Less Than Significant

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
objectionable odors affecting a substantial number of people?			
Would the project exceed 100 pounds per day of particulate matter (PM) (dust)?	Less Than Significant	No mitigation measures are required.	Less Than Significant
Would the project result in a substantial alteration of air movement in the area of the project?	Less than significant	No mitigation measures are required.	Less Than Significant
Biological Resources			
Would the project have a substantial adverse impact, either directly or	Potentially Significant	**EP-BIO-1: Resource Verification and Regulatory Compliance.** Future implementation of core Program elements under the Improvements Program shall be preceded by surveys for biological resources, conducted in accordance with the SDBG, to verify proposed impacts are consistent with the analysis included in the approved Program EIR and Biological Resources Technical Report, to confirm the	Significant and Unavoidable

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP Subarea Plan (SAP) or other local or regional plans, policies or regulations, or by CDFW or USFWS?		applicability of Environmental Protocols and Mitigation Measures, and regulatory permit requirements (e.g., Section 404/10 permits for dredge/fill within waters of the United States). Focused surveys shall follow approved protocols for state/federally protected species and MSCP Subarea Plan–covered and/or narrow-endemic species that were observed or identified as having a moderate-high potential of occurring within or adjacent to the proposed impact area in the Program EIR. Resource verification shall include written and graphic depiction of the project-specific biological resources/impacts and avoidance areas, access/staging/loading routes, the equipment that will be used to complete the work, and applicable mitigation measures and will be verified in relation to the Program EIR by the ED during subsequent environmental review and approval. **EP-LU-1: MHPA Land Use Adjacency Guidelines.** Final design of Program elements adjacent to the MHPA shall incorporate and document on the final design plans conformance with the MHPA Land Use Adjacency Guidelines (LUAGs). 1. **Drainage**: All new and proposed parking lots and developed areas in and adjacent to the preserve must not drain directly into the MHPA. All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the MHPA. 2. **Toxics:** Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, that are potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate measures to reduce impacts caused by the application and/or drainage of such materials into the MHPA. Such measures should include	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		drainage/detention basins, swales, or holding areas with non-invasive grasses or wetland-type native vegetation to filter out the toxic materials. 3. **Lighting:** Lighting of all developed areas adjacent to the MHPA should be directed away from the MHPA. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the MHPA and sensitive species from night lighting. 4. **Noise:** Uses in or adjacent to the MHPA should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas, recreational areas, and any other use that may introduce noises that could impact or interfere with wildlife utilization of the MHPA. Excessively noisy uses or activities adjacent to breeding areas must incorporate noise reduction measures and be curtailed during the breeding season of sensitive species. Adequate noise reduction measures should also be incorporated for the remainder of the year. 5. **Barriers:** New development adjacent to the MHPA may be required to provide barriers (e.g., non-invasive vegetation, rocks/boulders, fences, walls, and/or signage) along the MHPA boundaries to direct public access to appropriate locations and reduce domestic animal predation. 6. **Invasives:** No invasive non-native plant species shall be introduced into areas adjacent to the MHPA. 7. **Brush Management**: New residential development located adjacent to and topographically above the MHPA (e.g., along canyon edges) must be set back from slope edges to incorporate Zone 1 brush management areas on the	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		development pad and outside of the MHPA. Zones 2 and 3 will be combined into one zone (Zone 2) and may be located in the MHPA upon granting of an easement to the City (or other acceptable agency) except where narrow wildlife corridors require it to be located outside of the MHPA. 8. **Grading/Land Development:** Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA. **EP-WQ-1: Stormwater Standards.** Prior to construction, a Stormwater Applicability Checklist (DS-560) shall be completed by the Project Engineer (PE) to determine stormwater standards and requirements applicable to each improvement. A Water Pollution Control Plan (WPCP) or Stormwater Pollution Prevention Plan (SWPPP) may be required. For improvements that include permanent stormwater infrastructure or BMPs, a Storm Water Quality Management Plan (SWQMP) may be required, and the DS-564 form shall be completed by the PE. If required, the SWQMP shall be prepared by the project contractor prior to receiving the Notice to Proceed. The WPCP or SWPPP would be implemented in conformance with San Diego RWQCB standards and pursuant to Section 1001 of the "Whitebook." Construction BMPs identified by the City and RWQCB shall be implemented to control runoff and potential discharge of pollutants during and following construction activities. All construction activities conducted under the Improvements Program shall comply with the City's Stormwater Standards. **MM-BIO-1 Focused Biological Species Survey:** Within 24 months prior to subsequent project level approval and as part of the project-specific environmental review pursuant to CEQA, focused surveys for future site-specific development shall	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		be conducted, as applicable, in suitable habitat, in order to determine presence/absence of sensitive biological species within the proposed survey area. These surveys shall be in addition to suitable habitat/vegetation community mapping and jurisdictional aquatic resources delineation surveys conducted pursuant to EP-BIO-1. Focused surveys shall be conducted within suitable habitat according to the following protocols, or more current agency-approved protocols at the time of the surveys. Individual protocols may require a survey(s) of the proposed development footprint plus a buffer. A survey report shall be prepared and include a map and description of the location and extent of observed sensitive species that would be impacted within the areas of potential effect for each project site. If significant impacts to these species are unavoidable, the impact to the species shall be reduced to a less than significant level through implementation of MM-BIO-2 (habitat-based mitigation), MM-BIO-3 (avoidance and minimization during construction), MM-BIO-4 (sensitive plant mitigation), MM-BIO-5 (eelgrass mitigation), and/or MM-BIO-8 (avoidance of listed species take). **MM-BIO-1A Special Status Plant Species:** A qualified botanist shall survey suitable habitat proposed to be impacted to determine presence/absence of special-status plant species. Surveys shall be conducted in accordance with CDFW (CDFW 2018) and the U.S. Fish and Wildlife Service (USFWS 2000). CDFW (2018) provides botanical field surveyor qualifications. Multiple surveys may be required and timed according to blooming periods of target species and reference checks to ensure detectability. **MM-BIO-1B Coastal California Gnatcatcher (CAGN):** A biologist possessing a valid Endangered Species Act Section 10[a][1][a] Recovery Permit shall survey those suitable habitat areas within the MHPA that are proposed to be impacted	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		(permanently or temporarily) to determine presence/absence of CAGN. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service (USFWS 2017). **MM-BIO-1C: Least Bell's Vireo (LBV):** A qualified biologist shall survey suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of LBV. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service (USFWS 2001). **MM-BIO-1D: California Least Tern and Western Snowy Plover (CLT/WSP):** A qualified biologist shall survey those suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of CLT and WSP. Surveys for this species shall be conducted pursuant to requirements established by the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife. **MM-BIO-1E: Light-footed Ridgway's Rail and Belding's Savannah Sparrow (LFRR/BSS):** A biologist possessing a valid Endangered Species Act Section 10[a][1][a] Recovery Permit and state Scientific Collecting Permit and/or Memorandum of Understanding shall survey those suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of LFRR and/or BSS. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service, and for BSS by California Department of Fish and Wildlife.	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		MM-BIO-1F: Western Burrowing Owl (BUOW): A biologist possessing a valid state Scientific Collecting Permit and/or Memorandum of Understanding shall survey those suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of BUOW. Surveys for this species shall be conducted pursuant to the recommendations of CDFW (CDFW 2012). **MM-BIO-1G: Crotch's Bumble Bee:** A biologist possessing a valid state Scientific Collecting Permit and/or Memorandum of Understanding shall survey those suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of Crotch's bumble bee. Surveys for this species shall be conducted pursuant to the recommendations of CDFW (CDFW 2023). **MM-BIO-2 Habitat-Based Mitigation.** Habitat-based mitigation would be required for direct impacts to wetlands (see MM-BIO-2A) or sensitive uplands (see MM-BIO-2B). **MM-BIO-2A Compensatory Wetlands Mitigation** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, any direct impacts to wetlands, including jurisdictional aquatic resources, would require mitigation to comply with City of San Diego, state and/or federal authorizations, in accordance with the City of San Diego's Biology Guidelines Table 2A (or the most current adopted guidelines at the time of review). Significant impacts to sensitive wetlands could occur from Program activities, including habitat restoration, construction staging, access and stockpiling, and infrastructure improvements including storm drain outfalls, bike and pedestrian	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		paths, and seawalls. Mitigation required as part of any federal (Clean Water Act Section 404) or state (California Fish and Game Code Sections 1601 and 1603, California Coastal Act) permit shall supersede and shall not be in addition to any mitigation identified in the California Environmental Quality Act (CEQA) document for those wetland areas covered by any federal or state permits, consistent with the City's Biology Guidelines. Mitigation acreage for other impacts to habitat (e.g., type conversion due to grading to restore lands to a higher value habitat type) will be evaluated through a Habitat Mitigation and Monitoring Plan (HMMP), subject to review and approval by applicable regulatory agencies (e.g., California Coastal Commission, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, U.S. Army Corps of Engineers, San Diego Regional Water Quality Control Board).	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		Land Development Manual – Biology Guidelines February 2018 **TABLE 2A** **WETLAND MITIGATION RATIOS** **INCLUDING BIOLOGICALLY SUPERIOR DESIGN** HABITAT TYPE / MITIGATION RATIO Coastal Wetlands: - Salt marsh 4:1 - Salt panne 4:1 Riparian Habitats: - Oak riparian forest 3:1 - Riparian forest or woodland 3:1 - Riparian scrub 2:1 - Riparian scrub in the Coastal Overlay Zone 3:1 Freshwater Marsh 2:1 Freshwater Marsh in the Coastal Overlay Zone 4:1 Natural Flood Channel 2:1 Disturbed Wetland 2:1 Vernal Pools 2:1 to 4:1* Marine Habitats 2:1 Eelgrass Beds 2:1 Notes: Any impacts to wetlands must be mitigated "in-kind" and achieve a "no-net loss" of wetland function and values except as provided for in Section 3B (Economic Viability Option). * Mitigation for vernal pool impacts consistent with the VPHCP shall be 2:1 for listed fairy shrimp or when no listed plant species are present, 3:1 for San Diego button celery, and 4:1 when listed species with very limited distributions (e.g., *Spreading navarretia, San Diego mesa mint, California Orcutt grass, and Otay mesa mint*) are present. While ratio is applied to the basin area, the mitigation site must include appropriate watershed to support restored and/or enhanced basins.	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		Impacts shall be mitigated in one of the following two equally suitable options pursuant to the City's Biology Guidelines: (1) implementation of habitat creation, restoration, enhancement, and/or preservation through an approved Habitat Mitigation and Monitoring Plan (HMMP) or (2) acquisition of approved mitigation credits, including approved City of San Diego (City) Advanced Permittee Responsible Mitigation (APRM) sites. Impacts occurring within the Coastal Overlay Zone shall be mitigated within the Coastal Overlay Zone unless alternative mitigation is approved through California Coastal Commission action. **Option 1:** Prior to subsequent approval of a Program component(s), as part of subsequent project-specific environmental review pursuant to CEQA, an HMMP shall be prepared and approved by the City's Environmental Designee (ED), in accordance with the City of San Diego Municipal Code, Land Development Code—Biology Guidelines (SDBG). Mitigation shall conform with the SDBG, including definitions for creation (re-establishment), restoration (including rehabilitation), enhancement, and/or acquisition identified under environmentally sensitive lands (ESL), satisfaction of no net loss by including at least a 1:1 ratio of creation or restoration for all areas of permanent loss to wetlands, and the protection and notice and management elements. When proposed mitigation involves habitat enhancement, restoration, or creation, the HMMP shall include the following information in addition to information required under Attachment B of the SDBG: • Conceptual planting plan including planting zones, grading, and irrigation • Seed mix/planting palette	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		• Planting specifications • Monitoring program including success criteria • Long-term maintenance and preservation plan • For mitigation that involves habitat acquisition, the HMMP shall include the following: • Location of proposed acquisition • Description of the biological resources to be acquired, including support for the conclusion that the acquired habitat mitigates for the specific maintenance impact • Documentation that the mitigation area would be adequately preserved and maintained in perpetuity **Option 2**: Prior to subsequent approval of a Program component(s), as part of subsequent project-specific environmental review pursuant to CEQA, allocation of mitigation site credits, approved by the ED, that shall include the following: • A description of the location of the approved mitigation site and referenced on a map identifying the regional vicinity. • Description of the mitigation credits to be acquired, including support for the conclusion that the acquired habitat mitigates for the specific impact. At a minimum, a description of the proposed habitat impacts, and the type (creation/restoration/enhancement) and quantity of mitigation credits requested. • Documentation that the credits are associated with a mitigation bank or APRM site that has been approved by the appropriate Resource Agencies • Documentation in the form of a current mitigation credit ledger	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		MM-BIO-2B Compensatory Uplands Habitat Mitigation Prior to subsequent project level approval, as part of subsequent projects specific environmental review pursuant to CEQA, any direct impacts to sensitive upland vegetation would require mitigation to comply with City of San Diego with the City of San Diego's Biology Guidelines Table 3 (or the most current adopted guidelines at the time of review). Significant impacts to sensitive uplands (Tier I–III) could occur from Program activities, including habitat restoration, construction staging, access and stockpiling, and infrastructure improvements including storm drain outfalls, bike and pedestrian paths, and seawalls. Mitigation acreage for permanent loss of habitats (e.g., infrastructure improvements) shall adhere to mitigation ratios established under Table 3 of the City of San Diego Municipal Code, Land Development Code—Biology Guidelines. Mitigation required as part of any federal (Clean Water Act Section 404) or state (California Fish and Game Code Sections 1601 and 1603, California Coastal Act) permit shall supersede and shall not be in addition to any mitigation identified in the California Environmental Quality Act (CEQA) document for those upland areas covered by any federal or state permits. Mitigation acreage for other impacts to habitat (e.g., type conversion due to grading to restore lands to a higher value habitat type) will be evaluated through a Habitat Mitigation and Monitoring Plan (HMMP). **MM-BIO-3 Biological Resource Protection During Construction** The following measures will be included in the construction plans for each program component that is within or adjacent to sensitive wetlands or sensitive uplands (Tier I–III):	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		Prior to Construction A. **Biologist Verification** – Prior to the start of Project construction activities, the Project Biologist shall submit a letter to the City of San Diego (City) Environmental Designee (ED) that a Qualified Biologist, as defined in the City of San Diego's 2018 Biological Guidelines, has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project. B. **Biological Documents** – Prior to the issuance of the Notice to Proceed and/or first preconstruction meeting, The Qualified Biologist shall submit all required documentation to the ED verifying that any special mitigation reports, including, but not limited to, maps, plans, surveys, survey timelines, or buffers, are completed or scheduled per City Biology Guidelines, Multiple Species Conservation Program (MSCP) Subarea Plan (SAP), Environmentally Sensitive Lands (ESL) Ordinance, project permit conditions; California Environmental Quality Act (CEQA); endangered species acts (ESAs); and/or other local, state, or federal requirements. Prior to the start of construction within or immediately adjacent to the Multi-Habitat Planning Area (MHPA), the ED shall verify that all MHPA boundaries and limits of work have been delineated on all construction documents. A. **BCME** – Prior to the issuance of the Notice to Proceed and/or first preconstruction meeting, The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME), which includes the biological documents in C above. In addition, the BCME shall include the limits of work, proposed	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		monitoring schedule, restoration/revegetation plans, plant salvage/relocation requirements, avian or other wildlife surveys/survey schedules (including general avian nesting and U.S. Fish and Wildlife Service [USFWS] protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/ barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the ED. The BCME shall include a site plan, a written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by the ED and referenced in the construction documents. The BCME shall be approved by the ED prior to the start of construction. B. **Avian Protection Requirements** – To avoid any direct impacts to any species identified as a listed, candidate, sensitive, or special-status species in the MSCP SAP, removal of habitat that supports active nests of native species in the proposed area of disturbance shall occur outside of the breeding season for these species (February 1 to September 15). If removal of habitat in the proposed area of disturbance must occur during the breeding season, the Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the results of the pre-construction survey to the ED for review and approval prior to initiating any construction activities. If nesting bird activities are detected, a letter report in conformance with the City's Biology Guidelines (e.g., appropriate follow-up surveys, monitoring schedules, construction and noise barriers/buffers) shall be prepared and include proposed measures to be implemented to ensure that take	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		of birds or eggs or disturbance of breeding activities is avoided. The report shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's ED and Biologist shall verify and approve that all measures identified in the report are in place prior to and/or during construction. C. **Resource Delineation** – Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats and verify compliance with any other project conditions as shown on the BCME to ensure crews remain in the approved work areas. These demarcations will not be required for locations with existing structures, such as chain-link fencing, along the limits of work or areas that are adjacent to non-sensitive habitat areas. In-water work areas shall be buoyed off to limit the extent of direct impacts to eelgrass. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora and fauna species, including nesting birds) during construction. Appropriate care shall be taken to minimize attraction of nest predators to the site. D. **Cover Trenches.** The qualified monitoring biologist shall oversee the construction site so that cover and/or escape routes for wildlife from excavated areas shall be provided daily. All steep trenches, holes, and excavations during construction shall be covered at night with backfill, plywood, metal plates, or other means, and if plastic sheeting is used, the edges must be covered with soils such that small wildlife cannot access the excavated hole. Soil piles shall be covered at night to prevent wildlife from burrowing in. The edges of the sheeting shall be weighed down by sandbags. These areas may also be fenced to prevent wildlife from gaining access. Exposed trenches, holes, and excavations shall be inspected twice	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		daily (i.e., each morning and before sealing the exposed area) by the qualified monitoring biologist to monitor for wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route. The qualified monitoring biologist shall verify that the contractor E. **Pre-Construction Meeting/Education** – Prior to construction, a pre-construction meeting shall be held on site with the following in attendance: the City's Project Manager (PM; or equivalent personnel), an Engineering & Capital Projects (ECP) Environmental representative, the Project Contractor (PC) (if applicable), and the Qualified Monitoring Biologist (QMB). At this meeting, the QMB shall identify and discuss the mitigation measures that apply to project activities and the sensitive nature of the adjacent habitat with the crew and PC. At the pre-construction meeting, the QMB shall submit to the City ED and PM a copy of the BCME that identifies areas to be protected, fenced, and monitored. This data shall include all planned locations and design of noise attenuation walls or other devices, if applicable. Prior to commencement of utility undergrounding activities, the QMB shall also meet with the PC and the construction crew and conduct an on-site educational session regarding the need to avoid impacts outside of the approved work area and to protect sensitive flora and fauna that may occur at the project location (e.g., explain the avian and wetland buffers and the flag system for removal of invasive species or retention of sensitive plants and clarify acceptable access routes/methods and staging areas).	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		During Construction A. **Monitoring & Reporting** – All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on "Exhibit A" and/or the BCME. The Qualified Biologist shall monitor construction activities as needed to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the pre-construction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR shall be emailed to the ED on the first day of monitoring, the first week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery. B. **Subsequent Resource Identification** – The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna on site (e.g., flag plant specimens for avoidance during access). If active nests or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species-specific local, state, or federal regulations have been determined and applied by the Qualified Biologist. ***Post Construction*** A. **Final Monitoring Report -** If no deviations from the approved construction plan occur during work, no additional documentation is required. If deviations from the approved construction plan do occur, such as unanticipated impacts to	

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Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		sensitive vegetation communities or unanticipated discharge of pollutants, a Final Monitoring Report shall be prepared within 30 days following the completion of mitigation monitoring efforts detailing construction and monitoring that occurred and any remedial or compensatory measures taken. B. **Unintended Impact Mitigation -** In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City Biology Guidelines, ESL and MSCP SAP, State CEQA, and other applicable local, state, and federal laws. The Qualified Biologist shall submit a final BCME/report to the satisfaction of the ED within 30 days of construction completion. **MM-BIO-4 Species-Specific Sensitive Plant Mitigation** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, any direct impacts to the following special-status plant species would require mitigation in the form of an approved Conceptual Restoration Plan that would be implemented if any of the following species are identified within the proposed construction area: coast woolly-heads, decumbent goldenbush, estuary seablite, Nuttall's lotus, aphanisma, Coulter's saltbush, southcoast saltscale, golden-spined cereum, cliff spurge, Orcutt's pincushion, or Brand's phacelia. The approved Conceptual Restoration Plan can be combined with the project Habitat Mitigation and Monitoring Plan and shall be prepared in accordance with Attachment B of the City's Biology Guidelines and implemented in accordance with the City's Biology Guidelines. The plan shall include: • Provisions to salvage impacted plants for restoration following construction (i.e., transplantation), if feasible.	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		• Soil shall be salvaged and re-used within on-site or off-site restoration areas, where appropriate, to capture seed bank and/or transfer soil conditions. • Seeds from impacted plants would be collected for grow-out and use in on-site or off-site restoration following construction, if feasible. • Conceptual planting plan, including grading and temporary irrigation if necessary to create appropriate habitat conditions to support the species. • Planting specifications (e.g., seed source, soil suitability, container size). • Monitoring program including success criteria (e.g., a minimum number of sensitive plant individuals, a minimum percent cover of native species, a maximum percent cover of non-native species). • Long-term maintenance and preservation plan (e.g., sensitive plant monitoring, fencing and signage, adaptive management actions, site security from trespass or vandalism). **MM-BIO-8 Avoidance of Listed Species Take** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, an analysis of listed wildlife species that have a moderate or high potential to occur within or adjacent to individual project components must be conducted. The analysis shall be based on life history and distribution of each species and presence of suitable habitat within or adjacent to the project and survey results collected through implementation of MM-BIO-1, to determine the applicability of measures below that shall be implemented.	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		MM-BIO-8A: Coastal California Gnatcatcher (CAGN) Prior to any project pre-construction meeting associated with the Program, the Environmental Designee (ED) shall verify that Multi-Habitat Planning Area (MHPA) as well as any appropriate requirements regarding coastal California gnatcatcher, as specified below, are shown on the project's biological monitoring exhibit(s). No construction activities shall occur within or adjacent to suitable habitat during the breeding seasons of coastal CAGN (March 1 to August 15) until the following requirements have been met to the satisfaction of the ED: 1) A Qualified Biologist (possessing a valid Endangered Species Act Section 10[a][1][a] Recovery Permit) shall survey those suitable habitat areas within the MHPA that would be subject to construction noise levels exceeding 60 A-weighted decibels (dBA) hourly average for the presence of CAGN. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service (USFWS) within the breeding season prior to the commencement of any construction. If CAGN is present, then the following conditions must be met: a) From March 1 through August 15, no clearing, grubbing, or grading of occupied habitat shall be permitted within the MHPA. Areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; and	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		b) From March 1 through August 15 no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied habitat in the MHPA. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the ED at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; or c) At least 2 weeks prior to the commencement of construction activities, under the direction of a Qualified Acoustician, attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed 60 dBA hourly average at the edge of habitat occupied by CAGN and located in the MHPA. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area in the MHPA to ensure that levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (August	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		16). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the ED, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment. 2) If CAGN are not detected during the protocol survey, the permitted biologist shall submit substantial evidence to the ED and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary between March 1 through August 15 and adherence to the following is required: a) If this evidence indicates that the potential is high for CAGN, to be present based on historical records or site conditions, then Condition 1(a) through 1(c) shall be adhered to as specified above. b) If this evidence concludes that no impacts to the applicable species are anticipated, no additional mitigation measures would be necessary.	

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		MM-BIO-8B: Least Bell's Vireo (LBV) Prior to any project pre-construction meeting associated with the Program, Environmental Designee (ED) verify that appropriate requirements regarding LBV, as specified below, are shown on the project's biological monitoring exhibit(s). No construction activities shall occur within or adjacent to suitable habitat during the breeding seasons of LBV (March 15 to September 15) until the following requirements have been met to the satisfaction of the ED: 1) A Qualified Biologist (possessing a valid Endangered Species Act Section 10[a][1][a] Recovery Permit) shall survey those habitat areas that would be subject to construction noise levels exceeding 60 A-weighted decibels (dBA) hourly average for the presence of LBV. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service (USFWS) within the breeding season prior to the commencement of any construction. If LBV is present, then the following conditions must be met: a) From March 15 through September 15 no clearing, grubbing, or grading of occupied habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; and b) From March 15 through September 15 no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied habitat.	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the ED at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; or c) At least 2 weeks prior to the commencement of construction activities, under the direction of a Qualified Acoustician, attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed 60 dBA hourly average at the edge of habitat occupied by LBV. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the ED, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment. 2) If LBV are not detected during the protocol survey, the permitted biologist shall submit substantial evidence to the ED and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary between March 15 through September 15 and adherence to the following is required: a) If this evidence indicates that the potential is high for LBV to be present based on historical records or site conditions, then Condition 1(a) through 1(c) shall be adhered to as specified above. b) If this evidence concludes that no impacts to the applicable species are anticipated, no additional mitigation measures would be necessary. **MM-BIO-8C: California Least Tern (CLT)/Western Snowy Plover (WSP)** In order to prevent impacts to CLT and WSP, no clearing, grubbing or grading, or active wetland creation/restoration shall take place within or adjacent to the MHPA, CLT preserves as identified in the current Mission Bay Park Natural Resources Management Plan at the time of construction, or coastal salt marsh habitats during	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		the City's general avian breeding season of February 1 to September 15. Additionally, the following requirements from the Mission Bay Park Natural Resource Management Plan (City of San Diego 1990) and Mission Bay Park Master Plan Update (City of San Diego 2002) for the CLT shall be met: 1) In-water construction or dredging shall not be permitted in Mission Bay from April 1 through September 15, unless otherwise approved in writing by the City of San Diego, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service. Any exception would have to meet the following criteria to preserve least tern nesting and foraging: use of silt curtains or similar devices around in-water construction activity, use of noise reduction or low noise equipment, and use of timing and location restrictions on activity to avoid interfering with breeding sites or major least tern foraging areas. 2) Direct impacts to permanently designated least tern nesting sites shall not be permitted. 3) The 150-foot buffer zone for each least tern nesting site shall be free of structures with heights over 6 feet, including fencing, to avoid providing raptors perches from which to prey on CLT chicks. 4) Any existing noise attenuation berms to prevent any significant noise from reaching the Multi-Habitat Planning Area and CLT preserve shall remain in accordance with the Mission Bay Park Natural Resource Management Plan and Mission Bay Park Master Plan.	

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		5) If construction activities take place during the CLT breeding season, significant impacts may occur to least tern in the Multi-Habitat Planning Area. To avoid significant noise impacts to breeding least terns, construction within 500 feet of least tern preserves shall take place outside the least tern breeding season, which ranges from April 1 to September 15. Additionally, the following requirements for the CLT shall be met: 1) Beginning April 1 and ending September 15, a CLT biologist shall monitor daily for the arrival of CLTs into Mission Bay, and immediately notify the USFWS upon their arrival. Notification to the USFWS shall occur via email on a daily basis as to the presence or absence of least terns in Mission Bay. The CLT biologist shall be present throughout the period of in-water construction and will note the present of CLTs in Mission Bay and the work area. 2) A biological monitoring with CLT experience shall be present on all days when in-water work is conducted after least terns arrive in Mission Bay. The biological monitor shall be present throughout the period of in-water construction and shall note the presence of CLTs in Mission Bay and the work area, and any project-generated surface turbidity. Surface turbidity is defined as an obvious discoloration of the top 10 feet of the water column visible to the human eye. Project-generated surface turbidity shall not exceed 500 feet in length or width, or persist long than 1 hour. 3) The biological monitoring shall provide daily field reports to the ED and USFWS within 24 hours of each monitoring date. The daily field reports shall include	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		photographs showing the best management practices surrounding the work area taken during in-water work, and any incidences of plume escape or expansion outside of the silt curtain. The biological monitoring shall also submit a final summary report of monitoring to the ED and USFWS within 30 days of completion of in-water work. In addition, if work is proposed where CLT or WSP has a moderate or high potential to nest, a USFWS and CDFW-approved biologist will perform the following duties prior to the start of construction of those program component areas: 1) The USFWS-CDFW biologist shall survey those suitable habitat areas that would be subject to construction noise levels exceeding 60 dBA hourly average for the presence of CLT and/or WSP. As required by species, surveys shall be conducted pursuant to any approved protocol survey guidelines established by USFWS, CDFW or other authorized agency within the breeding season prior to the commencement of any construction. If CLT and/or WSP are determined to be present, then the following conditions must be met: a) From March 1 to September 15 for WSP and April 1 to September 15 for CLT, no clearing, grubbing, or grading of occupied habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist. No construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied habitat. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be	

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		completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the Environmental Designee (ED) at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; or b) At least 2 weeks prior to the commencement of construction activities, under the direction of a Qualified Acoustician, attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed 60 dBA hourly average at the edge of habitat occupied by CLT and/or WSP. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be	

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		implemented in consultation with the biologist and the ED, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment. 2) If CLT and/or WSP are not detected during the required survey(s), the permitted biologist shall submit substantial evidence to the ED and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary during the specific breeding seasons for these species, and adherence to the following is required: a) If this evidence indicates that the potential is high for CLT and/or WSP to be present based on historical records or site conditions, then Condition 1(a) through 1(c) shall be adhered to as specified above. b) If this evidence concludes that no impacts to this species are anticipated, no additional mitigation measures would be necessary. **MM-BIO-8D: Light-Footed Ridgway's Rail and Belding's Savannah Sparrow (LFRR/BSS)** if work is proposed where light-footed Ridgway's rail (LFRR) or Belding's savannah sparrow (BSS) has a moderate or high potential to nest, a USFWS (for LFRR only) and CDFW (for LFRR and BSS) approved biologist will perform the following duties prior to the start of construction of those Program component areas:	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		1) The approved biologist shall survey those suitable habitat areas that would be subject to construction noise levels exceeding 60 dBA hourly average for the presence of LFRR and/or BSS. As required by species, surveys shall be conducted pursuant to any approved protocol survey guidelines established by USFWS, CDFW or other authorized agency within the breeding season prior to the commencement of any construction. If LFRR and/or BSS are determined to be present, then the following conditions must be met: a) From March 1 to September 15 for LFRR and February 1 to August 1 for BSS, no clearing, grubbing, or grading of occupied habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; and b) From March 1 to September 15 for LFRR and February 1 to August 1 for BSS, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied habitat. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the Environmental Designee (ED) at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist;	

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		or c) At least 2 weeks prior to the commencement of construction activities, under the direction of a Qualified Acoustician, attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed 60 dBA hourly average at the edge of habitat occupied by LFRR and/or BSS. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16 for LFRR and August 2 for BSS). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the ED, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.	

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		2) If LFRR and/or BSS are not detected during the required survey(s), the permitted biologist shall submit substantial evidence to the ED and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary during the specific breeding seasons for these species, and adherence to the following is required: a) If this evidence indicates that the potential is high for LFRR and/or BSS to be present based on historical records or site conditions, then Condition 1(a) through 1(c) shall be adhered to as specified above. b) If this evidence concludes that no impacts to this species are anticipated, no additional mitigation measures would be necessary. **MM-BIO-8E: Western Burrowing Owl (BUOW)** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, it shall be determined If work is proposed at a project location where BUOW have been identified during subsequent review to have a moderate or high potential to occur, the following species-specific mitigation measure is required. Prior to issuance of any construction permits, the Environmental Designee (ED) shall verify that the following project requirements regarding BUOW are shown on the construction plans and/or included in the contract specifications:	

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		Prior to Permit or Notice to Proceed Issuance: 1) As program component areas have been determined to have BUOW occupation potential, the Applicant Department or Permit Holder shall submit evidence to the Environmental Designee (ED) and MSCP SAP staff, to the satisfaction of the City, verifying that a Biologist possessing qualifications pursuant to the California Department of Fish and Game (CDFG) 2012 Staff Report on BUOW Mitigation (hereafter referred as the CDFG 2012 Staff Report) has been retained to implement a BUOW construction impact avoidance program. 2) The qualified BUOW biologist (or their designated biological representative) shall attend the pre-construction meeting to inform construction personnel about the City's BUOW requirements and subsequent survey schedule. *Prior to Start of Construction*: 1) The Applicant Department or Permit Holder and Qualified Biologist must ensure that initial pre-construction/take avoidance surveys of the component construction "site" are completed between 14 and 30 days before initial construction activities, including brushing, clearing, grubbing, or grading of the site, regardless of the time of the year. "Site" means the component construction site and the area within a radius of 450 feet of the component construction site. A report detailing the results of the surveys shall be submitted and approved by the Wildlife Agencies (i.e., USFWS and the California Department of Fish and Wildlife [CDFW]) and/or City MSCP SAP staff prior to construction or BUOW eviction(s) and shall include maps of the	

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Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		component site and BUOW locations on aerial photos. 2) The pre-construction survey shall follow the methods described in the CDFG 2012 Staff Report Appendix D. 3) 24 hours prior to commencement of ground-disturbing activities, the Qualified Biologist shall verify results of pre-construction/take avoidance surveys via review of the Survey Report (see report requirements in CDFG 2012, Staff Report – Appendix D 3) that is to be provided to the City and Wildlife Agencies. Written verification via the Survey Report shall be provided to the City's ECP ED and MSCP SAP Sections, and to the satisfaction of these sections. If results of the pre-construction surveys have changed and BUOW are present in areas not previously identified, immediate notification to the City and Wildlife Agencies shall be provided prior to ground-disturbing activities. *During Construction:* 1) Best management practices shall be employed, as BUOWs are known to use open pipes, culverts, excavated holes, and other burrow-like structures at construction sites. Legally permitted active construction projects that are occupied by BUOW and have followed all protocol in this mitigation section, or sites within 450 feet of occupied BUOW areas, shall undertake measures to discourage BUOWs from recolonizing previously occupied areas or colonizing new portions of the site. Such measures include, but are not limited to, ensuring that the ends of all pipes and culverts are covered when they are not being worked on and covering rubble piles, dirt piles, ditches, and berms.	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		2) Ongoing BUOW detection – If BUOWs or active burrows are not detected during the pre-construction surveys, Section "A" below shall be followed. IF BUOWS OR BURROWS ARE DETECTED DURING THE PRE-CONSTRUCTION SURVEYS, SECTION "B" SHALL BE FOLLOWED. NEITHER THE MSCP SUBAREA PLAN NOR THIS MITIGATION SECTION ALLOWS FOR ANY BUOWS TO BE INJURED OR KILLED OUTSIDE **OR** WITHIN THE MHPA; IN ADDITION, IMPACTS TO BUOWS WITHIN THE MHPA MUST BE AVOIDED. *A.* Post-Survey Follow-Up if BUOWs and/or Signs of Active Natural or Artificial Burrows Are <u>Not</u> Detected During the Initial Pre-Construction Survey – Monitoring the site for new burrows is required using the protocol in CDFG 2012 Staff Report Appendix D for the period following the initial pre-construction survey, until construction is scheduled to be complete and is complete. *(NOTE: Using a projected completion date [that is amended if needed] will allow development of a monitoring schedule that adheres to the required number of surveys in the detection protocol.)* i) If no active burrows are found but BUOWs are observed to occasionally (1–3 sightings) use the site for roosting or foraging, they shall be allowed to do so with no changes in the construction or construction schedule. ii) If no active burrows are found but BUOWs are observed, during follow-up monitoring or repeatedly (4 or more sightings), using the site for roosting or foraging, the ED shall be notified, and any portion of the	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		site where owls have been sighted and that has not been graded or otherwise disturbed shall be avoided until further notice. iii) If a BUOW begins using a burrow on the site at any time after the initial pre-construction survey, procedures described in Section "b" must be followed. iv) Any actions other than these require the approval of the City and the Wildlife Agencies. B. Post-Survey Follow Up if BUOWs and/or Active Natural or Artificial Burrows Are Detected During the Initial Pre-Construction Survey – Monitoring the site for new burrows is required using the protocol in CDFG 2012 Staff Report Appendix D for the period following the initial pre-construction survey, until construction is scheduled to be complete and is complete. (*NOTE: Using a projected completion date [that is amended if needed] will allow development of a monitoring schedule that adheres to the required number of surveys in the detection protocol.)* This section (B) applies only to sites (including biologically defined territory) wholly outside of the MHPA; ALL DIRECT AND INDIRECT IMPACTS TO BUOWS WITHIN THE MHPA SHALL BE AVOIDED. i) If one or more BUOWs are using any burrows (including pipes, culverts, debris piles, etc.) on or within 300 feet of the proposed construction area, the ED and MSCP SAP staff shall be immediately contacted. The City's ED and MSCP SAP staff shall contact the Wildlife Agencies regarding eviction/collapsing burrows and enlist the appropriate City biologist for ongoing coordination with the Wildlife Agencies and the	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		qualified consulting BUOW biologist. No construction shall occur within 300 feet of an active burrow without written concurrence from the Wildlife Agencies. This distance may increase or decrease, depending on the burrow's location in relation to the site's topography, and other physical and biological characteristics. a) Outside the Breeding Season – If the BUOW is using a burrow on site outside the breeding season (i.e., September 1 to January 31), the BUOW may be evicted after the qualified BUOW biologist has determined via fiber optic camera or other appropriate device, that no eggs, young, or adults are in the burrow. Eviction requires preparation of an Exclusion Plan prepared in accordance with CDFG 2012 Staff Report Appendix E (or most recent guide available) for review and submittal to the Wildlife Agencies. Written concurrence from the Wildlife Agencies is required prior to Exclusion Plan implementation. b) During Breeding Season – If a BUOW is using a burrow on site during the breeding season (February 1 to August 31), construction shall not occur within 300 feet of the burrow until the young have fledged and are no longer dependent on the burrow, at which time the BUOWs can be evicted. Eviction requires preparation of an Exclusion Plan prepared in accordance with CDFG 2012 Staff Report, Appendix E (or most recent guidance available) for review and submittal to Wildlife Agencies and City of San Diego (ECP ED and MSCP Subarea Plan). Written concurrence from the Wildlife Agencies prior to Exclusion Plan implementation.	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		C. Survey Reporting During Construction – Details of construction surveys and evictions (if applicable) conducted shall be immediately (within 5 working days or sooner) reported to the ECP ED, MSCP SAP staff and the Wildlife Agencies and must be provided in writing (as by email) and acknowledged to have been received by the required Wildlife Agencies and ECP staff member(s). *Post Construction:* 1) Details of all the surveys and actions undertaken on site with respect to BUOWs (e.g., occupation, eviction, locations) shall be reported to the ECP ED and the Wildlife Agencies within 21 days post-construction. This report must include summaries of all previous reports for the site and maps of the site and BUOW locations on aerial photos. **MM-BIO-8F: Crotch's Bumble Bee** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA,, it shall be determined if work is proposed at a Program component location where Crotch's bumble bee have been identified during subsequent review to have a moderate or high potential to occur, the following species-specific mitigation measure is required to minimize the potential for take of this state candidate endangered species. Should this species no longer be a state candidate for listing or state listed as threatened or endangered at the time of the pre-construction meeting or protocol surveys are completed and determine the species is absent from the Program component site, then this mitigation measures shall not be required.	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		1) Prior to the issuance of a Notice to Proceed (NTP) for any construction, the City's Environmental Designee (ED) shall review and approve construction documents (plans, specification, details, etc.) to ensure the applicable mitigation monitoring and reporting program (MMRP) requirements are incorporated into the design. a) To avoid impacts on Crotch's bumble bee, removal of habitat in the proposed area of disturbance must occur outside of the Colony Active Period between April 1 and August 31. If the removal of habitat in the proposed area of disturbance must occur during the Colony Active Period, a Qualified Biologist shall conduct a pre-activity survey no more than 3 days prior to the initiation of construction activities to determine the presence or absence of Crotch's bumble bee within the proposed area of disturbance. b) Surveys must be conducted by a Qualified Biologist meeting the qualifications discussed in the CDFW guidance (i.e., Survey Considerations for CESA Candidate Bumble Bee Species, dated June 6, 2023). c) The pre-activity survey shall consist of photographic surveys following CDFW guidance (i.e., Survey Considerations for CESA Candidate Bumble Bee Species, dated June 6, 2023). In coordination with CDFW, the Qualified Biologist may be required to send all photo vouchers to a CDFW-approved taxonomist to confirm the identifications of the bumble bees encountered during surveys. The surveys shall consist of passive methods unless a Memorandum of Understanding is obtained from CDFW. If additional activities (e.g., capture or handling) are deemed necessary to identify bumble bees of an unknown species that may be Crotch's bumble bee, then the Qualified Biologist shall	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		obtain the required authorization via a Memorandum of Understanding or Scientific Collecting Permit pursuant to the CDFW 2023 Survey Considerations for CESA Candidate Bumble Bee Species. Survey methods that involve lethal take of species are not acceptable. Survey results will be considered valid until the start of the next colony active period. d) If pre-activity surveys identify Crotch's bumble bee individuals on site, the Qualified Biologist shall notify and consult with CDFW to establish, monitor, and maintain no-work buffers around the associated floral resources or nest, as appropriate. The size and configuration of the no-work buffer shall be based on the best professional judgment of the Qualified Biologist in consultation with CDFW. Construction activities shall not occur within the no-work buffers until the bees appear no longer active (i.e., associated floral resources appear desiccated and no bees are seen flying for three consecutive days indicating dispersal from the area). e) If Crotch's bumble bee are identified during species-specific surveys, the City shall pursue an Incidental Take Permit from CDFW. Take of any endangered, threatened, or candidate species that results from the project is prohibited, except as authorized by state law (California Fish and Game Code Sections 86, 2062, 2067, 2068, 2080, 2085; 14 CCR 786.9) under the California Endangered Species Act (CESA). Mitigation for direct impacts to Crotch's bumble bee will be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the project, or as otherwise determined through the Incidental Take Permit process.	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		f) Survey data shall be submitted by the Qualified Biologist to the California Natural Diversity Database (CNDDB) in accordance with the Memorandum of Understanding with CDFW, or Scientific Collecting Permit requirements, as applicable. **MM-BIO-8G: CDFW Fully Protected Species** Take of CDFW fully protected species including white-tailed kite, light-footed Ridgway's rail, and California least tern may not occur except with take permit authorization from CDFW, and only under specific circumstances. Light-footed Ridgway's rail and California least tern are also listed as endangered by USFWS and would require federal take authorization if take is unavoidable. If work is proposed at a component location where fully protected species have been identified during subsequent review to have a moderate or high potential, focused wildlife surveys would be required. 1) Prior to the issuance of any NTP, or pre-construction meeting, the ECP ED shall verify that the following project requirements regarding the fully protected species are shown on the construction plans where such construction occurs within suitable habitat for these species: a) Impacts to fully protected species shall be fully avoided. For construction sites that support suitable habitat for fully protected species, a qualified biologist shall remain on site during all vegetation clearing and perform periodic site inspections (1–2 times/week) during grading and vegetation removal activities. Should a fully protected species nest be detected, a buffer of a minimum of	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		500 feet shall be established, and no activity shall occur within the buffer zone until the biologist determines and CDFW confirms that all chicks have fledged and are no longer reliant on the nest site. **MM-BIO-8H: Marine Mammals and Green Sea Turtles** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, a hydroacoustic study would be required to determine if project components that require in-water pile driving have the potential to generate sound exposure levels exceeding the thresholds described in the following table.	

Table ES-1
Summary of Program Impacts

<table>
<tr><th>Environmental Topic</th><th>Impact?</th><th>Mitigation Measure(s)</th><th>Level of Significance After Mitigation</th></tr>
<tr><td></td><td></td><td>
Summary of Potentially Significant In-Water Sound Pressure Level Impacts
<table>
<tr><th></th><th>Impact Threshold for Marine Fish (206 dB peak and 187 dB accumulated SEL)</th><th>Impact Threshold for Marine Mammals (160 dB_{rms} for impact; 120 dB_{rms} for vibratory)</th><th>Impact Threshold for Green Sea Turtles (166 dB_{rms})</th></tr>
<tr><td>Assumed Component Noise Levels (>5 meters of water)</td><td colspan="3">Potentially Significant Hydroacoustic Impacts</td></tr>
<tr><td>76-188 dB_{peak}</td><td>No</td><td>NA</td><td>NA</td></tr>
<tr><td>146-166 dB_{SEL}</td><td>Maybe[2]</td><td>NA</td><td>NA</td></tr>
<tr><td>166-176 dB_{rms}</td><td>NA</td><td>Yes</td><td>Yes</td></tr>
</table>
Source: M&A 2017.
Notes: dB = decibel; SEL = sound exposure level; rms = root mean square; N/A = not applicable.
[1] Accumulated SEL is derived from the number of pile strikes ($SEL_{cumulative}$ = SEL + 10*log [# strikes]) as such, the starting SEL would dictate the number of pile strikes possible prior to exceeding the threshold of 187dB $SEL_{cumulative}$.

Should pile driving be found to result in sound exposure levels that would cause indirect hydroacoustic impacts on marine species through exceedance of approved thresholds in the table above, the following measures shall be followed, or similar
</td><td></td></tr>
</table>

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		measures as may be required by the National Marine Fisheries Service (NMFS): a. Employ protected species observers (PSO). PSOs must be qualified, NMFS-approved PSOs. b. Monitoring must take place from 30 minutes prior to initiation of pile driving activity (i.e., pre-start clearance monitoring) through 30 minutes post-completion of pile driving activity. c. Pre-start clearance monitoring must be conducted during periods of visibility sufficient for the lead PSO to determine that the shutdown zones (as determined by hydroacoustic analysis) are clear of marine mammals and green sea turtles. Pile driving may commence following 30 minutes of observation when the determination is made that the shutdown zones are clear of marine mammals. d. If a marine mammals or green sea turtles are observed entering or within the shutdown zones, pile driving activity must be delayed or halted. e. If pile driving is delayed or halted due to the presence of a marine mammal or green sea turtle, the activity may not commence or resume until either the animal has voluntarily exited and been visually confirmed beyond the shutdown zone or 15 minutes have passed without re-detection of the animal. f. Use soft start techniques when impact pile driving. Soft start requires contractors to provide an initial set of three strikes at reduced energy, followed by a 30-second waiting period, then two subsequent reduced energy strike sets. A soft start must be implemented at the start of each day's impact pile driving and at any time following cessation of impact pile driving for a period of 30 minutes or longer.	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		g. Noise attenuation: a bubble curtain must be used during impact pile driving. The bubble curtain must be operated as necessary to achieve optimal performance. At a minimum, the following performance standards shall be met: 1. The bubble curtain must distribute air bubbles around 100 percent of the piling circumference for the full depth of the water column. 2. The lowest bubble ring must be in contact with the substrate for the full circumference of the ring, and the weights attached to the bottom ring shall ensure 100 percent substrate contact. No parts of the ring or other objects shall prevent full substrate contact. 3. Air flow to the bubblers must be balanced around the circumference of the pile. • Construction staff must avoid direct physical interaction with marine mammals or green sea turtle during construction activity. If a marine mammal or green sea turtle comes within 10 meters of such activity, operations must cease and vessels must reduce speed to the minimum level required to maintain steerage and safe working conditions, as necessary to avoid direct physical interaction.	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the project result in a substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats, as identified in the Biology Guidelines of the Land Development manual, or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?	Potentially Significant	**MM-BIO-2A**, **MM-BIO-2A**, and **MM-BIO-3** (same as above)	Significant and Unavoidable

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the project result in a substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means?	Potentially Significant	**MM-BIO-2A**, **MM-BIO-3** (same as above) **MM-BIO-5: Eelgrass Mitigation** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, focused eelgrass surveys shall be conducted within suitable habitat and in accordance with the California Eelgrass Mitigation Policy and Implementing Guidance (NOAA 2014). Where it is determined that eelgrass will be impacted by fill activities, an Eelgrass Mitigation and Monitoring Plan (Mitigation Plan) shall be prepared for review and approval by the National Oceanic and Atmospheric Administration's NMFS and the California Department of Fish and Wildlife (CDFW). The Mitigation Plan shall describe the approach for compensatory mitigation for the loss of eelgrass habitat. Such mitigation shall be implemented in accordance with the NMFS California Eelgrass Mitigation Policy, including site selection; initial and long-term habitat area replacement ratios; methods for and timing of transplantation activities; and monitoring, performance, and reporting requirements. In addition, mitigation shall comply with City of San Diego's Biology Guidelines Table 2A (or the most current adopted guidelines at the time of review). Preference shall be given to in-kind replacement of the eelgrass habitat. At a minimum, the no-net-loss creation mitigation (1:1) for eelgrass beds habitat shall be required to occur within Mission Bay itself per the Mission Bay Park Natural Resource Management Plan to the greatest extent feasible. Should in-kind mitigation within Mission Bay not be feasible, consideration shall be given to in-kind mitigation first in areas in close proximity to Mission Bay, then in locations within the Southern California region. If in-kind mitigation is not feasible, mitigation banks or in-lieu fee conservation programs shall be given preference over out-of-kind mitigation**.** All mitigation shall conform with the wetland restoration provisions of the City's Biology Guidelines.	Significant and Unavoidable

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP SAP, or impede the use of native wildlife nursery sites?	Potentially Significant	**EP-BIO-1**, **EP-LU-1**, **MM-BIO-2A**, **MM-BIO-2B**, and **MM-BIO-3** (same as above) **MM-BIO-6 Grunion Monitoring and Avoidance Plan** As part of the subsequent project-specific environmental review pursuant to CEQA it shall be determined if project activities are necessary below the high tide line during the grunion spawning season (March 1 through August 31 of any year), the project site and a 100-foot buffer shall be surveyed for spawning grunion during high tide of a full or new moon for 3 nights, beginning with the nearest grunion run prior to commencement of sand placement activities. Monitoring shall be conducted by a qualified biologist and the California Department of Fish and Wildlife (CDFW) published dates for grunion runs should be utilized. Project activities below the high tide line shall not occur within the 4 days of a full or new moon event (see CDFW grunion run calendar). Grunion monitoring shall be conducted by a qualified biologist for 30 minutes prior to, and 2 hours following, the predicted start of each daily spawning event. Sufficient qualified biologists shall be employed to ensure that the entire proposed sand placement site is monitored during the predicted grunion run. Monitoring is not necessary in areas where there is no sand, such as areas supporting 100% cobble or marshlands with no sand exposed during high tide. The magnitude and extent of a spawning event shall be defined in 300-foot segments of beach using the Walker Scale. Every individual fish (males and females) shall be counted each night (3 nights total), with the greatest numbers being utilized to determine the Walker Scale value (e.g., 0, 1, 2, 3, 4, or 5) of each 300-foot segment within the proposed work area. Project activities shall be modified according to the following plan:	Significant and Unavoidable

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		If a grunion run consisting of 0–100 individual fish per 300-foot segment (Walker Scale 0) is reported within 2 weeks prior to, or during, project work, the Contractor does not need to take any avoidance action for grunion eggs. No mature grunion may be intentionally buried or harmed as a result of project activities. Within 2 weeks prior to proposed work, if a grunion run consisting of 100 or more individual fish per 300-foot segment (Walker Scale 1, 2, 3, 4, or 5) is reported, the Contractor shall avoid work on the respective beach segment(s) and truck route and additionally, shall avoid a 100-foot buffer on either side of the segment(s) and route for a minimum of 2 weeks, to ensure that no grunion eggs are buried or disturbed. These areas shall be memorialized through multiple GPS coordinates and marked with irrigation flags for a minimum of 2 weeks or when the next scheduled grunion run will be monitored. The Contractor shall adapt the project schedule to avoid operations on such beach segments and their associated buffers. No mature grunion may be intentionally harmed as a result of project activities. If project activities have already commenced, and a grunion run consisting of 100 to 500 individual fish in one or more 300-foot segments (Walker Scale 2) in the work area is reported, the Contractor shall avoid impacts to grunion eggs to the greatest extent feasible and then shall minimize impacts to grunion eggs through such measures as alteration of the truck route, sediment discharge points, spreading areas, and placement locations. If project activities have already commenced, and a grunion run consisting of 500 or more individual fish per segment (Walker Scale 3, 4, or 5) is reported, the Contractor shall avoid work on the respective beach segment(s) and truck route and additionally,	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		shall avoid a 100-foot buffer on either side of the segment(s) and route for a minimum of 2 weeks, to ensure that no grunion eggs are buried or disturbed. These areas shall be memorialized through multiple GPS coordinates, and marked with irrigation flags for a minimum of 2 weeks when the next scheduled grunion run will be monitored. The Contractor shall adapt the project schedule to avoid operations on such beach segments and their associated buffers. No mature grunion may be intentionally harmed as a result of project activities. **MM-BIO-7 Caulerpa Management** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, the City shall retain a certified *Caulerpa* surveyor as per NOAA Fisheries Certified Caulerpa Surveyors List to identify the potential existence of invasive *Caulerpa* spp. within the program component areas that have potential to support invasive *Caulerpa* spp., as identified during subsequent review and approvals, through surveys conducted in accordance with the Caulerpa Control Protocol: https://media.fisheries.noaa.gov/2021-12/caulerpacontrol-protocol-v5.pdf (October 2021) prior to construction in those Program component areas. Any sightings of *Caulerpa* spp. shall be reported within 24 hours to CDFW (Caulerpa@wildlife.ca.gov) and the National Oceanic and Atmospheric Administration (NOAA) Fisheries at (562) 980-4037 and nmfs.wcr.caulerpa@noaa.gov.	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Would the project result in a conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP SAP area or in the surrounding region?	Potentially Significant	**EP-BIO-1**, **EP-LU-1**, **MM-BIO-2A**, **MM-BIO-2B**, **MM-BIO-3**, and **MM-BIO-8** (same as above)	Significant and Unavoidable
Would the project introduce land use within an area adjacent to the MHPA that would result in	No Impact	No mitigation measures are required.	No Impact

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
adverse edge effects?			
Would the project conflict with any local policies or ordinances protecting biological resources?	No Impact	No mitigation measures are required.	No Impact
Would the project result in an introduction of invasive species of plants into a natural open space area?	Potentially Significant	**EP-BIO-1**, **EP-LU-1**, **MM-BIO-3**, and **MM-BIO-7** (same as above)	Less Than Significant with Mitigation
Energy			
Would the project result in potentially significant environmental impact due to	Less Than Significant	No mitigation measures are required.	Less Than Significant

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?			
Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?	Less Than Significant	No mitigation measures are required.	Less Than Significant.
Geology and Soils			
Would the project expose people or structures to geologic hazards such as	Less Than Significant	No mitigation measures are required.	Less Than Significant

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
earthquakes, landslides, mudslides, ground failure, or similar hazards?			
Would the project result in a substantial increase in wind or water erosion of soils, either on or off the site?	Less Than Significant	No mitigation measures are required.	Less Than Significant
Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site	Less Than Significant	No mitigation measures are required.	Less Than Significant

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
landslide, lateral spreading, subsidence, liquefaction or collapse?			
Greenhouse Gas Emissions			
Would the proposed project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Less Than Significant	No mitigation measures are required.	Less Than Significant
Would the project conflict with the City's Climate Action Plan or another applicable plan, policy, or	Less Than Significant	No mitigation measures are required.	Less Than Significant

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
regulation adopted for the purpose of reducing the emissions of greenhouse gases?			
Historical Resources			
Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?	Potentially Significant	**MM-CUL-1 Historic American Engineering Record (HAER) "Like" Documentation.** Prior to Program's implementation, the City of San Diego shall initiate and sponsor the documentation of the Mission Beach Seawall and its setting through the preparation of HAER "Like" documentation. This documentation shall include digital photographs, a short-form report, and archiving as outlined below, developed in consultation with the City of San Diego. All work shall be conducted by an architectural historian who meets the 2008 Secretary of the Interior's Professional Qualifications Standards for architectural history and/or history (Qualified Architectural Historian). This mitigation measure is being proposed in compliance with CEQA and does not necessitate approval of this documentation through National Park Service (NPS) or the California Office of Historic Preservation. The HAER "Like" Short Form document shall be limited to the following: 1. Digital Photography: Prior to issuance of any permits or any demolition of the seawall, digital photographic documentation of the Mission Beach Seawall shall be prepared to the National Park Service's 2024 National Register of Historic Places	Significant and Unavoidable

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		and National Historic Landmarks Program Consolidated and Updated Photograph Policy. The photographer shall be familiar with the recordation of historical resources in accordance with NPS guidelines and digital photography. A minimum of 15 photographs shall be taken, detailing the overall site, select intact portions of the seawall, existing setting, and surrounding viewsheds. Drone photography and/or videography may also be used to capture aerial perspectives of the seawall in addition to digital photography. All photographs shall include a photo index, and field notes, and be identified and labeled using the NPS Consolidated and Updated Photograph Policy 2024. 2. Short-Form Report: In consultation with the City of San Diego, a Qualified Architectural Historian shall prepare a short-form report in conjunction with the large format photographs. The historic report will be formatted to Historic American Engineering Record Guidelines for Historical Reports and include historical background information, original or copies of architectural or engineering drawings, if available, maps, and historic photographs relevant to the Mission Beach Seawall. 3. Archiving: One copy of the final, archival quality documentation shall be provided to the San Diego History Center. Duplicate archival laser-copies (on acid-free paper) of the report and photographs shall be submitted to the City of San Diego. In summary one (1) full set of survey prints, negatives, and report and one duplicate archival copy of surveys are required. The HAER "Like" Short Format documentation for the Mission Beach Seawall must be submitted to repositories within three months of Program's completion.	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		MM-CUL-2 Development of Public Interpretation and Educational Display. The City of San Diego shall develop and prepare public interpretation and educational materials to document and explain the importance of the Mission Beach Seawall to the City of San Diego's community and planning history. The display shall be designed in consultation with the project design team, a professional graphic designer, and a qualified historian or architectural historian who meets the Secretary of the Interior's Professional Qualifications Standards (Qualified Architectural Historian). Input and review of the content on the display must be completed in conjunction with the City of San Diego's Heritage Preservation staff. The display shall include the following content: • A narrative summary of the historical resource's significance, including its association with important events, persons, and/or architectural features. • Archival photographs and/or drawings of the resource. • A site map or diagram showing the original location and layout. • A QR code or link to a digital archive with expanded content, such as oral histories, documents, or additional imagery, if available. Historical ephemeral materials and exerts from historic contexts from technical reports prepared as part of the proposed Program and maps shall be included. The display should express the Mission Beach Seawall's association with the early development of Mission Beach and its innovative tongue and groove pilings design. The interpretive and educational display shall be incorporated into the design of the proposed Program for public accessibility at the new seawall site. Specifics for	

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		establishing the appropriate medium to display this information shall be done in consultation with the Project proponent. The following performance standards for the display are required: • The display shall be constructed of durable, weather-resistant materials and be designed to be accessible in accordance with ADA standards. • The content shall be reviewed and approved by the City of San Diego prior to installation. • The display shall be installed within three months of Project completion and maintained in good condition for a minimum of 20 years. **MM-CUL-3 Incorporation of Historic Design Features into New Construction.** During the design phase of the Program's Restoration of the Seawall Bulkhead Element, City of San Diego Heritage Preservation staff will review all construction drawings to ensure the incorporation of the historic design features identified in the 1998 Mission Beach Boardwalk Project EIR/Environmental Assessment such as the pop-out walls which historically featured open balustrades, elevation of solid walls along the Boardwalk, and specific concrete color and finish. The Mission Beach Seawall will be restored to the condition that is required by the City of San Diego's historical standards consistent with the San Diego Municipal Code. This mitigation is to ensure that the quality of design will be at a minimum equal to the current structure.	
Would the project cause a substantial adverse change	Potentially Significant	**MM-CUL-4 Construction Monitoring**. The following shall be implemented to protect unknown archaeological resources and/or grave sites that may be identified during ground-disturbing activities associated with the construction or maintenance of the Rose Creek Bike Path Project Element and the Seawall Bulkhead Restoration	Less Than Significant with Mitigation

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
in the significance of an archaeological resource pursuant to Section 15064.5?		Project Element. **I. Prior to Permit Issuance or Bid Opening/Bid Award** A. Entitlements Plan Check 1. Prior to permit issuance or Bid Opening/Bid Award, whichever is applicable, the Environmental Designee (ED) shall verify that the requirements for Archaeological Monitoring and Native American monitoring have been noted on the applicable construction documents through the plan check process. B. Letters of Qualification have been submitted to ED 1. Prior to Bid Award, the applicant shall submit a letter of verification to ED identifying the Principal Investigator (PI) for the project and the names of all persons involved in the archaeological monitoring program, as defined in the City of San Diego Historical Resources Guidelines (HRG). If applicable, individuals involved in the archaeological monitoring program must have completed the 40-hour HAZWOPER training with certification documentation. 2. ED will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the archaeological monitoring of the project meet the qualifications established in the HRG. 3. Prior to the start of work, the applicant must obtain written approval from ED for any personnel changes associated with the monitoring program. **II. Prior to Start of Construction** A. Verification of Records Search 1. The PI shall provide verification to ED that a site-specific records search (1 mile radius) has been completed. Verification includes, but is not limited to a copy	

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Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		of a confirmation letter from South Coastal Information Center, or, if the search was in-house, a letter of verification from the PI stating that the search was completed. 2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities. 3. The PI may submit a detailed letter to ED requesting a reduction to the ¼ mile radius. B. PI Shall Attend Precon Meetings 1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, Native American consultant/monitor (where Native American resources may be impacted), Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and ED. The qualified Archaeologist and Native American Monitor shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor. a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with ED, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring. 2. Acknowledgement of Responsibility for Curation (CIP or Other Public Projects) The applicant shall submit a letter to ED acknowledging their responsibility for the cost of curation associated with all phases of the archaeological	

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Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		monitoring program. 3. Identify Areas to be Monitored Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based on the appropriate construction documents (reduced to 11x17) to ED identifying the areas to be monitored including the delineation of grading/excavation limits. The AME shall be based on the results of a site specific records search as well as information regarding the age of existing pipelines, laterals and associated appurtenances and/or any known soil conditions (native or formation). ED shall notify the PI that the AME has been approved. 4. When Monitoring Will Occur A. Prior to the start of any work, the PI shall also submit a construction schedule to ED through the RE indicating when and where monitoring will occur. B. The PI may submit a detailed letter to ED prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate conditions such as age of existing pipe to be replaced, depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for	

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Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		resources to be present. 5. Approval of AME and Construction Schedule After approval of the AME by ED, the PI shall submit to ED written authorization of the AME and Construction Schedule from the CM. **III. During Construction** A. Monitor Shall be Present During Grading/Excavation/Trenching/ Habitat Restoration 1. The Archaeological Monitor shall be present full-time during all soil disturbing and grading/excavation/trenching activities which could result in impacts to archaeological resources as identified on the AME. **The Construction Manager is responsible for notifying the RE, PI, and ED of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the AME.** 2. The Native American consultant/monitor shall determine the extent of their presence during soil disturbing and grading/excavation/trenching activities based on the AME and provide that information to the PI and ED. If prehistoric resources are encountered during the Native American consultant/monitor's absence, work shall stop and the Discovery Notification Process detailed in Section III.B-C and IV.A-D shall commence. 3. The PI may submit a detailed letter to ED during construction requesting a modification to the monitoring program when a field condition such as	

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Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		modern disturbance post-dating the previous grading/trenching activities, presence of fossil formations, or when native soils are encountered that may reduce or increase the potential for resources to be present. 4. The archaeological and Native American consultant/monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be emailed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion)**, and in the case of ANY discoveries. The RE shall forward copies to ED. C. Discovery Notification Process 1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil disturbing activities, including but not limited to digging, trenching, excavating or grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate. 2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery. 3. The PI shall immediately notify ED by phone of the discovery, and shall also submit written documentation to ED within 24 hours by email with photos of the resource in context, if possible. 4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered. D. Determination of Significance	

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Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		1. The PI and Native American consultant/monitor, where Native American resources are discovered shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section IV below. a. The PI shall immediately notify ED by phone to discuss significance determination and shall also submit a letter to ED indicating whether additional mitigation is required. b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) and obtain written approval of the program from ED, CM and RE. ADRP and any mitigation must be approved by ED, RE and/or CM before ground disturbing activities in the area of discovery will be allowed to resume. **Note: If a unique archaeological site is also an historical resource as defined in CEQA Section 15064.5, then the limits on the amount(s) that a project applicant may be required to pay to cover mitigation costs as indicated in CEQA Section 21083.2 shall not apply.** (1). Note: For pipeline trenching and other linear projects in the public Right-of-Way, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under "D." c. If the resource is not significant, the PI shall submit a letter to ED indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that that no further work is required. (1). Note: For Pipeline Trenching and other linear projects in the public Right-of-Way, if the deposit is limited in size, both in length and depth; the	

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Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		information value is limited and is not associated with any other resource; and there are no unique features/artifacts associated with the deposit, the discovery should be considered not significant. (2). Note, for Pipeline Trenching and other linear projects in the public Right-of-Way, if significance cannot be determined, the Final Monitoring Report and Site Record (DPR Form 523A/B) shall identify the discovery as Potentially Significant. E. Discovery Process for Significant Resources – Pipeline Trenching and other Linear Projects in the Public Right-of-Way The following procedure constitutes adequate mitigation of a significant discovery encountered during pipeline trenching activities or for other linear project types within the Public Right-of-Way including but not limited to excavation for jacking pits, receiving pits, laterals, and manholes to reduce impacts to below a level of significance: 1. Procedures for documentation, curation and reporting a. One hundred percent of the artifacts within the trench alignment and width shall be documented in-situ, to include photographic records, plan view of the trench and profiles of side walls, recovered, photographed after cleaning and analyzed and curated. The remainder of the deposit within the limits of excavation (trench walls) shall be left intact. b. The PI shall prepare a Draft Monitoring Report and submit to ED via the RE as indicated in Section VI-A. c. The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) the	

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Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		resource(s) encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines. The DPR forms shall be submitted to the South Coastal Information Center for either a Primary Record or SDI Number and included in the Final Monitoring Report. d. The Final Monitoring Report shall include a recommendation for monitoring of any future work in the vicinity of the resource. **IV. Discovery of Human Remains** If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains; and the following procedures as set forth in CEQA Section 15064.5(e), the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) shall be undertaken: A. Notification 1. Archaeological Monitor shall notify the RE or BI as appropriate, ED, and the PI, if the Monitor is not qualified as a PI. ED will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS) of the Development Services Department to assist with the discovery notification process. 2. The PI shall notify the Medical Examiner after consultation with the RE, either in person or via telephone. B. Isolate discovery site 1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains	

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Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		until a determination can be made by the Medical Examiner in consultation with the PI concerning the provenience of the remains. 2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenience. 3. If a field examination is not warranted, the Medical Examiner will determine with input from the PI, if the remains are or are most likely to be of Native American origin. C. If Human Remains **ARE** determined to be Native American 1. The Medical Examiner will notify the Native American Heritage Commission (NAHC) within 24 hours. By law, **ONLY** the Medical Examiner can make this call. 2. NAHC will immediately identify the person or persons determined to be the Most Likely Descendant (MLD) and provide contact information. 3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with CEQA Section 15064.5(e), the California Public Resources and Health & Safety Codes. 4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods. 5. Disposition of Native American Human Remains will be determined between the MLD and the PI, and, if: a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being notified by the	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		Commission, OR; b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner, THEN c. To protect these sites, the landowner shall do one or more of the following: (1) Record the site with the NAHC; (2) Record an open space or conservation easement; or (3) Record a document with the County. d. Upon the discovery of multiple Native American human remains during a ground disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and items associated and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c, above. D. If Human Remains are **NOT** Native American 1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial. 2. The Medical Examiner will determine the appropriate course of action with	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		the PI and City staff (PRC 5097.98). 3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for internment of the human remains shall be made in consultation with ED, EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of Man. **V. Night and/or Weekend Work** A. If night and/or weekend work is included in the contract 1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the precon meeting. 2. The following procedures shall be followed. a. No Discoveries In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit to ED via email by 8AM of the next business day. b. Discoveries All discoveries shall be processed and documented using the existing procedures detailed in Sections III - During Construction, and IV – Discovery of Human Remains. Discovery of human remains shall always be treated as a significant discovery. c. Potentially Significant Discoveries If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section III - During Construction	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		and IV-Discovery of Human Remains shall be followed. d. The PI shall immediately contact the RE and ED, or by 8AM of the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made. B. If night and/or weekend work becomes necessary during the course of construction 1. The Construction Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin. 2. The RE, or BI, as appropriate, shall notify ED immediately. C. All other procedures described above shall apply, as appropriate. **VI. Post Construction** A. Submittal of Draft Monitoring Report 1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Historical Resources Guidelines (Appendix C/D) which describes the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program (with appropriate graphics) to ED via the RE for review and approval within 90 days following the completion of monitoring. **It should be noted that if the PI is unable to submit the Draft Monitoring Report within the allotted 90-day timeframe as a result of delays with analysis, special study results or other complex issues, a schedule shall be submitted to ED establishing agreed due dates and the provision for submittal of monthly status reports until this measure can be met.**	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		a. For significant archaeological resources encountered during monitoring, the Archaeological Data Recovery Program or Pipeline Trenching Discovery Process shall be included in the Draft Monitoring Report. b. Recording Sites with State of California Department of Parks and Recreation The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines, and submittal of such forms to the South Coastal Information Center with the Final Monitoring Report. 2. ED shall return the Draft Monitoring Report to the PI via the RE for revision or, for preparation of the Final Report. 3. The PI shall submit revised Draft Monitoring Report to ED via the RE for approval. 4. ED shall provide written verification to the PI of the approved report. 5. ED shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals. B. Handling of Artifacts 1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued 2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are	

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Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		completed, as appropriate. C. Curation of artifacts: Accession Agreement and Acceptance Verification 1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with ED and the Native American representative, as applicable. 2. When applicable to the situation, the PI shall include written verification from the Native American consultant/monitor indicating that Native American resources were treated in accordance with state law and/or applicable agreements. If the resources were reinterred, verification shall be provided to show what protective measures were taken to ensure no further disturbance occurs in accordance with Section IV – Discovery of Human Remains, Subsection C. 3. The PI shall submit the Accession Agreement and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to ED. 4. The RE or BI, as appropriate shall obtain signature on the Accession Agreement and shall return to PI with copy submitted to ED. 5. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and ED. D. Final Monitoring Report(s) 1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to ED (even if negative), within 90 days after notification from ED of the approved report.	

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		2. The RE shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from ED which includes the Acceptance Verification from the curation institution **MM-CUL-5 Cultural Review of Future Development Projects.** Prior to the issuance of any discretionary permit for a future development projects that were not reviewed in the Cultural Resources Constraints Analysis for the Mission Bay Park Improvements Program (Appendix N) and that could directly and/or indirectly affect a cultural resource (i.e., archaeological and Tribal Cultural Resources), the City shall require the following steps be taken to determine (1) the potential presence and/or absence of cultural resources, and (2) the appropriate mitigation for any significant resources that may be impacted. For the purposes of CEQA review, a cultural resource is defined in CEQA Guidelines Section 15064.5. Tribal Cultural Resources are defined in PRC Section 21074. **I. Initial Determination** The City's Environmental Designee shall determine the potential presence and/or absence of cultural resources at the project site by reviewing site photographs and existing historic information (e.g., Archaeological Sensitivity Maps, the Archaeological Map Book, the California Historical Resources Inventory System, and the City's "Historical Inventory of Important Architects, Structures, and People in San Diego") and may conduct a site visit. A review of the cultural resources records search data (see Appendix N) shall be done at the initial planning stage of a project to ensure that cultural resources are avoided and/or impacts are minimized to the extent feasible in accordance with the City's Historical Resources Guidelines. The sensitivity levels described below shall guide the appropriate steps necessary to address the potential	

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		resources. Sensitivity ratings may be adjusted based on the amount of disturbance that has occurred, which may have previously impacted cultural resources, as well as new data available to the City. A. High Sensitivity: indicates locations where significant cultural resources have been documented or would have the potential to be identified. High sensitivity resources include village and habitation sites and areas near fresh water sources. These resources may range from moderately complex to highly complex, with more defined living areas or specialized work space areas, and a large breadth of features and artifact assemblages. The potential for identification of additional resources in such areas would be high. B. Moderate Sensitivity: Indicates that some cultural resources have been recorded within the area or the area was developed before 1984 when CEQA review may not have been applied. Moderate sensitivity resources consist of diversity or density of feature and artifact types (e.g., a moderately dense lithic scatter). C. Low Sensitivity: Indicates areas where there is a high level of disturbance or development, and few or no previously recorded cultural resources are present based on records search results and due to the timing of development of the project site occurring after 1984 when CEQA would have been applied. Within these areas, the potential for additional resources to be identified would be low. **I. Phase I** Based on the results of the initial determination, if there is any evidence that the project area contains archaeological and/or Tribal Cultural Resources, a site-specific	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		records search and/or survey may be required and shall be determined on a case-by-case basis by the City's Environmental Designee. If a cultural resources study is required, it shall be prepared consistent with the City's Historical Resources Guidelines. All individuals conducting any phase of the cultural resources program shall meet the professional qualifications in accordance with the City's Historical Resources Guidelines. The cultural resources study shall include the background research conducted as part of the initial determination. This includes a record search at the SCIC at San Diego State University. A review of the Sacred Lands File maintained by the NAHC shall also be conducted at this time. The cultural resources study shall include a field survey and/or an evaluation of significance, as applicable if cultural resources are identified, based on the City's Historical Resources Guidelines. Native American participation shall be required for all field work. **II. Phase II** Once a cultural resource (as defined in the PRC) has been identified, a significance determination shall be made. If a project were to impact areas identified as low sensitivity, it is assumed that any significant cultural resources no longer hold integrity or are not present. If a project impacts these areas, no additional mitigation measures shall be required. If a project were to impact areas identified as moderate sensitivity, a site-specific records search and/or survey may be required on a case-by-case basis. If cultural resources are identified in the records search and/or survey, a significance evaluation for the identified cultural resources shall be required. If no significant resources are found and site conditions are such that there is no potential for further discoveries,	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		then no further action shall be required. Resources found to be nonsignificant as a result of a survey and/or assessment shall require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation site forms and inclusion of the results in the survey and/or assessment report. If no significant resources are found, but results of the initial evaluation indicate there is still a potential for resources to be present in portions of the property, then mitigation monitoring shall be required. If the resource has not been evaluated for significance, a testing plan shall be required. If the resource is determined to be significant, a testing plan, data recovery plan, and mitigation monitoring shall be required. If a project were to impact areas identified as high sensitivity, a survey and testing program may be required by the qualified archaeologist to further define resource boundaries subsurface presence or absence and determine the level of significance. A thorough discussion of testing methodologies including surface and subsurface investigations can be found in the City's Historical Resources Guidelines. The results from the testing program shall be evaluated against the Significance Thresholds found in the City's Historical Resources Guidelines. If significant cultural resources are identified within the area of potential effects, the site may be eligible for local designation. Preferred mitigation for direct and/or indirect impacts to cultural resources is to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm shall be taken. Mitigation measures such as, but not limited to, a Research Design and Archaeological Data Recovery Program (ADRP), construction monitoring, site designation, capping, granting of deeds, designation of open space, and avoidance and/or preservation shall be required and	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		shall be determined by the City's Environmental Designee on a case-by-case basis. **III. Phase III** Archaeological Data Recovery Program If a cultural resource is found to be significant and preservation is not an option, a Research Design and ARDP shall be required, which includes a Collections Management Plan for review and approval by the City's Environmental Designee. The ADRP shall be based on a written research design and is subject to the provisions as outlined in PRC Section 21083.2. The ADRP shall be reviewed and approved by the City's Environmental Designee prior to distribution of a draft CEQA document. Local Designation of Resources The final cultural resource evaluation report shall be submitted to Historical Resources Board (HRB) staff for designation. The final cultural resource evaluation report and supporting documentation will be used by HRB staff in consultation with qualified City staff to ensure that adequate information is available to demonstrate eligibility for designation under the applicable criteria. Monitoring and Archaeological Resource Reports Archaeological monitoring may be required during building demolition and/or construction grading when significant cultural resources are known or suspected to be present on a site but cannot be recovered prior to grading due to obstructions such as, but not limited to, existing development, dense vegetation, or if a data recovery did not reduce the impact to the resource. Monitoring shall be documented	

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Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		in a consultant site visit record. Native American participation shall be required for all subsurface investigations, including geotechnical testing and other ground disturbing activities whenever a Tribal Cultural Resource or any archaeological site. In the event that human remains are encountered during data recovery and/or a monitoring program, the provisions of PRC Section 5097 shall be followed. In the event that human remains are discovered during project grading, work shall halt in that area and the procedures set forth in the PRC (Section 5097.98) and State Health and Safety Code (Section 7050.5), and in the federal, state, and local regulations described above shall be undertaken. These provisions shall be outlined in the Mitigation Monitoring and Reporting Program included in a subsequent project-specific environmental document. The Most Likely Descendent shall be consulted during the preparation of the written report, at which time they may express concerns about the treatment of sensitive resources. Archaeological Resource Reports shall be prepared by qualified professionals as determined by the criteria set forth in Appendix B of the City's Historical Resources Guidelines. In the event that a cultural resource deposit is encountered during construction monitoring, a Collections Management Plan shall be required in accordance with the project's Mitigation Monitoring and Reporting Program. The disposition of human remains and burial related artifacts that cannot be avoided or are inadvertently discovered is governed by State (i.e., AB 2641 [Coto] and NAGPRA of 2001 [Health and Safety Code 8010-8011]) and federal (i.e., federal NAGPRA United States Code 3001-3013]) law, and must be treated in a dignified and culturally appropriate manner with respect for the deceased individual(s) and their descendants. Any human	

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		bones and associated grave goods of Native American origin shall be turned over to the appropriate Native American group for repatriation, as identified by the NAHC. Arrangements for long-term curation must be established between the applicant/property owner and the consultant prior to the initiation of the field reconnaissance, and must be included in the archaeological survey, testing and/or data recovery report submitted to the City for review and approval. Curation must be accomplished in accordance with the California State Historic Resources Commission's Guidelines for the Curation of Archaeological Collection (dated May 7, 1993) and, if federal funding is involved, 36 CFR 60. Additional information regarding curation is provided in Section II of the Historical Resources Guidelines.	
Would the project result in the disturbance of any human remains, including those interred outside of formal cemeteries?	Less Than Significant	No mitigation measures are required.	Less Than Significant
Health and Safety			
Would the project expose people or	Less Than Significant	No mitigation measures are required.	Less Than Significant

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structures to a significant risk of loss, injury, or death involving wildland fires, including when wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?			
Would the project result in hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a quarter-mile of	Less Than Significant	No mitigation measures are required.	Less Than Significant

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an existing or proposed school?			
Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?	Less Than Significant	No mitigation measures are required.	Less Than Significant
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	Less Than Significant	No mitigation measures are required.	Less Than Significant

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result, create a significant hazard to the public or environment?			
Would the project expose people to toxic substances, such as pesticides and herbicides, some of which have long-lasting ability, applied to the soil during previous agricultural uses?	Less Than Significant	No mitigation measures are required.	Less Than Significant
Would the project result in a safety hazard for people residing or working in a designated airport influence area?	Less Than Significant	No mitigation measures are required.	Less Than Significant

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Would the project result in a safety hazard for people residing or working within two miles of a private airstrip or a private airport or heliport facility that is not covered by an adopted Airport Land Use Compatibility Plan?	Less Than Significant	No mitigation measures are required.	Less Than Significant
Hydrology and Water Quality			
Would the project result in a substantial increase in impervious surfaces and associated increased runoff?	Less Than Significant	No mitigation measures are required.	Less Than Significant

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Would the project result in substantial alteration to on- and off-site drainage patterns due to changes in runoff flow rates or volumes?	Less Than Significant	No mitigation measures are required.	Less Than Significant
Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality?	Less Than Significant	No mitigation measures are required.	Less Than Significant
In flood hazard, tsunami, or seiche zones,	Less Than Significant	No mitigation measures are required.	Less Than Significant

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
would the project risk release of pollutants due to project inundation?			
Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?	Less Than Significant	No mitigation measures are required.	Less Than Significant
Land Use and Planning			
Would the project conflict with the environmental goals, objectives, or guidelines of a General Plan or Community Plan	Less than Significant Impact	No mitigation measures are required.	Less Than Significant

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
or other applicable land use plan or regulation and as a result, cause an indirect or secondary environmental impact? project physically divide an established community?			
Would the project lead to the development or conversion of General Plan or Community Plan designated open space or prime farmland to a more intensive land use, resulting in a physical division	No Impact	No mitigation measures are required.	No Impact

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
of the community?			
Would the project conflict with the provisions of the City's Multiple Species Conservation Program (MSCP) Subarea Plan or other approved local, regional, or state habitat conservation plan?	No Impact	No mitigation measures are required.	No impact
Noise			
Would the project result or create a significant increase in the existing ambient noise levels?	Potentially Significant	**MM-NOI-1: Noise Abatement**. During the construction of the following Program components, the City shall install noise abatement in order to result in adequate noise reduction at the nearest noise sensitive receptor, in accordance with the table below, Noise Abatement Component Requirements.	Significant and Unavoidable

Table ES-1
Summary of Program Impacts

<table>
<tr><th>Environmental Topic</th><th>Impact?</th><th>Mitigation Measure(s)</th><th>Level of Significance After Mitigation</th></tr>
<tr><td></td><td></td><td>
Noise Abatement Component Requirements
<table>
<tr><th>Component</th><th>Minimum Construction Noise Reduction (dBA)</th><th>Nearest Noise-Sensitive Receptors</th><th>Minimum Barrier Height Required (Feet)</th></tr>
<tr><td>Wetlands and Water Quality Improvements Element – Tecolote Creek and Fiesta Island Causeway Component</td><td>12.9</td><td>Along Ocean Front Walk/Mission Beach Boardwalk, east of the component</td><td>9</td></tr>
<tr><td>Shoreline Restoration Element – Vacation Island Northwest</td><td>7.4</td><td>On Sunset Road and Sands Drive, along the southern and eastern component boundaries</td><td>8</td></tr>
<tr><td>Shoreline Restoration Element – Vacation Island Northeast – Ingraham Street</td><td>3.7</td><td>On Hummingbird Lane, along the southern and eastern component boundaries</td><td>7</td></tr>
<tr><td>Shoreline Restoration</td><td>9.2</td><td>On Riviera Drive,</td><td>11</td></tr>
</table>
</td><td></td></tr>
</table>

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)				Level of Significance After Mitigation
		Element – Crown Point		along the eastern component boundaries		
		Shoreline Restoration Element – West Sail Bay	14	Along Bayside Walk, east of Mission Boulevard	9	
		Shoreline Restoration Element – Bonita Cove	10.2	Along Bayside Lane and San Fernando Place, west of the element boundary	9	
		Bicycle and Pedestrian Improvements Element – Rose Creek Bike Path	15.5	Along Figueroa Boulevard, Magnolia Avenue, and Hornblend Street, east of the element boundary	9	
		Bicycle and Pedestrian Improvements Element – Ocean Beach Bike Path	9.9	Along Point Loma Boulevard, south of the element boundary	8	
		Restoration Seawall Bulkhead Element – Replace Segment A	15.7	Along Ocean Front Walk/Mission Beach Boardwalk, east of the element	13	

Table ES-1
Summary of Program Impacts

<table>
<tr><th>Environmental Topic</th><th>Impact?</th><th>Mitigation Measure(s)</th><th>Level of Significance After Mitigation</th></tr>
<tr><td></td><td></td><td>
<table>
<tr><td></td><td></td><td>boundary</td><td></td></tr>
<tr><td>Restoration Seawall Bulkhead Element – Replace Segment B</td><td>15.7</td><td>Along Ocean Front Walk/Mission Beach Boardwalk, east of the element boundary</td><td>13</td></tr>
<tr><td>Restoration Seawall Bulkhead Element – New Segment C</td><td>15.5</td><td>Along Ocean Boulevard and Thomas Avenue, east of the element boundary</td><td>10</td></tr>
<tr><td>Access Improvements</td><td>7.9</td><td>Along Ocean Front Walk/Mission Beach Boardwalk</td><td>8</td></tr>
</table>

The City shall install noise abatement during the construction of each element listed in the Table above during the respective phases specified in Section 4.10.4, Impacts Analysis on the site boundary fencing (or within, as practical and appropriate) in the form of sound blankets or comparable temporary solid barriers to occlude construction noise emission between the site (or specific equipment operation as the situation may define) and the noise-sensitive receptor(s) of concern (i.e., where the line-of-sight is blocked). By way of example, suspended sound blankets, field-erected plywood sheeting, or comparable temporary solid or flexible but sufficiently massive barriers (of</td><td></td></tr>
</table>

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
		minimum sound transmission class rating of 25) would occlude construction noise emission between the site and the noise-sensitive receptor(s) of concern. In addition to the noise abatement component standards presented in the Table and discussed above, the following measures should be considered as supplemental abatement strategies to sufficiently reduce construction noise emission: • ***Administrative controls*** (e.g., reduce operating time of equipment and/or prohibit usage of equipment type[s] within certain distances to a nearest receiving occupied off-site property). • ***Engineering controls*** (change equipment operating parameters [e.g., speed, capacity], or install features or elements that otherwise reduce equipment noise emission [e.g., upgrade engine exhaust mufflers]).	
Would the project result in exposure of people to noise levels which exceed the City's adopted noise ordinance or are incompatible with Table K-4?	Less Than Significant	No mitigation measures are required.	Less Than Significant
Would the project result in	Less Than Significant	No mitigation measures are required.	Less Than Significant.

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
exposure of people to current or future transportation noise levels which exceed standards established in the Transportation Element of the General Plan or an adopted airport Comprehensive Land Use Plan?			
Would the Project result in the exposure of persons to or generation of excessive ground-borne vibration or ground-borne	Less Than Significant	No mitigation measures are required.	Less Than Significant

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
noise levels?			
Would the project result in land uses which are not compatible with aircraft noise levels as defined by an adopted airport Comprehensive Land Use Plan (CLUP)?	Less Than Significant	No mitigation measures are required.	Less Than Significant
Recreation			
Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial	Less Than Significant	No mitigation measures are required.	Less Than Significant

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
physical deterioration of the facility would occur or be accelerated?			
Would the project include recreational facilities or require the construction or expansion of recreational facilities which would have an adverse physical effect on the environment?	Potentially Significant	**MM-AQ-1**, **MM-AQ-2**, **MM-BIO-1** through **MM-BIO-8**, **MM-CUL-1** through **MM-CUL-5**, and **MM-NOI-1** (same as above).	Significant and Unavoidable
Tribal Cultural Resources			
Would the project cause a substantial adverse change in the			

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:			
a. Listed or eligible for listing in the California	Potentially Significant	**MM-CUL-4** and **MM-CUL-5** (same as above)	Less Than Significant with Mitigation

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code Section 5020.1(k)?			
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)	Potentially Significant	**MM-CUL-4** and **MM-CUL-5** (same as above)	Less Than Significant with Mitigation

Table ES-1
Summary of Program Impacts

Environmental Topic	Impact?	Mitigation Measure(s)	Level of Significance After Mitigation
of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.			

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1 INTRODUCTION

This Environmental Impact Report (EIR) for the proposed Mission Bay Park Improvements Program (referred to throughout this EIR as "proposed Program" or "Program") has been prepared on behalf of the City of San Diego (City) in compliance with the California Environmental Quality Act (CEQA) and State CEQA Guidelines (Public Resources Code), Section 21000 et seq. and California Code of Regulations, Title 14, Section 15000, et seq.). The City is the "public agency which has the principal responsibility for carrying out or approving the project" and, as such, is the "Lead Agency" for this project under CEQA (State CEQA Guidelines, Section 15367). The proposed Program constitutes a "project" as defined by State CEQA Guidelines Section 15378. The purpose of this EIR is to evaluate and disclose the potential environmental consequences of the proposed Program.

City of San Diego voters approved Proposition C on November 4, 2008, which amended the City Charter by adding Section 55.2. This section designates the use of a portion of the lease revenue from Mission Bay Park for capital improvements in Mission Bay Park and for other Regional Parks. This fund is known as the Mission Bay Park Improvement Fund (Improvement Fund). The Improvement Fund is used to complete a series of prioritized projects specifically identified with City Charter Section 55.2.

Proposition C created the Mission Bay Park Improvement Fund Oversight Committee (Oversight Committee) to oversee the prioritized list of projects funded by the Improvement Fund within the Mission Bay Park Improvement Zone (Improvement Zone), and to verify the appropriate funds are collected, segregated and retained and allocated consistent with City Charter Section 55.2.

The proposed Program analyzed within this EIR is the approval and implementation of an improvements Program including both Bay-wide elements as well as certain location-specific elements, within the Improvement Zone, which includes "those areas encompassed within the boundaries of Mission Bay Park, Oceanfront Walk from the Mission Bay jetty to Crystal Pier and the adjoining seawall, coastal parks, and ocean beaches contagious thereto" [San Diego City Charter Section 55.2(a)(4)]. It also includes portions of Rose Creek, Tecolote Creek and the San Diego River as it passes through the boundaries of Mission Bay Park.

The elements herein are aligned with the activity types identified in the City Charter that generally include efforts to "restore wetlands, wildlife habitat, and other environmental assets within the Improvement Zone; to preserve the beneficial uses of the Improvement Zone including, but not limited to, water quality, boating, swimming, fishing, and picnicking by maintaining navigable waters and eliminating navigational hazards; to restore embankments and other erosion control features; and to improve the conditions of the Improvement Zone for the benefit and enjoyment of residents and visitors, consistent with the Mission Bay Park Master Plan."

1.1 PURPOSE AND INTENDED USE OF THE EIR

CEQA requires that public agencies consider the potentially significant adverse environmental effects of projects over which they have discretionary approval authority before taking action on those projects (Public Resources Code Section 21000 et seq.). CEQA also requires that each public agency avoid or mitigate to less-than-significant levels, wherever feasible, the significant adverse environmental effects of projects it approves or implements. If a project would result in significant and unavoidable environmental impacts (i.e., significant effects that cannot be feasibly mitigated to less-than-significant levels), the project can still be approved, but the lead agency's decision maker must prepare findings and issue a "statement of overriding considerations" explaining in writing the specific economic, social, or other considerations that they believe, based on substantial evidence, make those significant effects acceptable (Public Resources Code Section 21002, State CEQA Guidelines Section 15093).

According to State CEQA Guidelines Section 15064(f)(1), preparation of an EIR is required whenever a project may result in a significant adverse environmental impact. An EIR is an informational document used to inform public agency decision makers and the general public of the significant environmental effects of a project, identify possible ways to mitigate or avoid the significant effects, and describe a range of reasonable alternatives to the project that could feasibly attain most of the basic objectives of the project while substantially lessening or avoiding any of the significant environmental impacts. Public agencies are required to consider the information presented in the EIR when determining whether to approve a project.

In accordance with State CEQA Guidelines Section 15168, this document is a Program EIR that examines the environmental impacts of projects within the Mission Bay Park Improvement Zone. Per CEQA guidelines, the Program EIR may be prepared on a series of actions that can be characterized as one large project and are related geographically, and/or in connection with issuance of rules, regulations, plans, or other general criteria to govern the conduct of a continuing program. This type of EIR focuses on the changes in the environment that would result from the Mission Pay Park Improvement Program Implementation Framework.

1.2 EIR LEGAL AUTHORITY

1.2.1 LEAD AGENCY

The City is the lead agency for the Program pursuant to Sections 15050 and 15051 of the CEQA Guidelines. The lead agency, as defined by CEQA Guidelines, Section 15367, is the public agency which has the principal responsibility for carrying out or approving a project. The analysis and findings in this document reflect the independent, impartial conclusions of the City.

1.2.2 RESPONSIBLE AND TRUSTEE AGENCIES

State law requires that all EIRs be reviewed by Responsible and Trustee Agencies. A "Responsible Agency," as defined pursuant to CEQA Guidelines, Section 15381, includes all public agencies other than the lead agency which have discretionary approval power over the Program and/or elements thereof. A "Trustee Agency" is defined in CEQA Guidelines, Section 15386, as a state agency having jurisdiction by law over natural resources affected by a project which are held in trust for the people of the State of California. Implementation of the Program would require subsequent actions or consultation from Responsible or Trustee Agencies. A brief description of some of the primary Responsible or Trustee Agencies that may have an interest in the Program is provided below:

- United States Army Corp of Engineers
- State Historic Preservation Office
- United States Fish and Wildlife Service
- California Coastal Commission
- California Department of Fish and Wildlife
- California Department of Transportation (Caltrans)
- Regional Water Quality Control Board

1.3 EIR TYPE, SCOPE, CONTENT, AND FORMAT

The Mission Bay Park Improvements Program EIR is a Program EIR. There are seven project elements, each of which has site design and location-specific descriptions, some of which have multiple locations. These are addressed at either a project or program level, as described in more detail in Chapter 3, Project Description.

The scope of analysis for this EIR was determined by the City as a result of initial project review and consideration of comments received in response to the Notice of Preparation circulated October 1, 2024, and in-person scoping meeting held on October 16, 2024 (see also Section 1.4.1 below). The Notice of Preparation and a recording of the virtual scoping meeting can be viewed on the City's Mission Bay Park webpage: https://www.sandiego.gov/cip/projectinfo/mbpeir

A brief overview of the various chapters and scope of the EIR are provided below:

- **Executive Summary.** This chapter provides a summary of the EIR; a brief description of the proposed Program; an identification of areas of controversy; and a summary table identifying significant impacts, proposed mitigation measures, and the significance of impacts after

mitigation. A summary of the proposed alternatives and a comparison of the potential impacts of the alternatives with those of the proposed Program are also provided.

- **Chapter 1, Introduction.** This chapter contains an overview of the legal authority, purpose, and intended uses of the EIR, as well as its scope and content. It also provides a discussion of the CEQA environmental review process, including public involvement.
- **Chapter 2, Environmental Setting.** This chapter describes the precise location of the Program with an emphasis on the physical features of the site and the surrounding areas. In addition, the section provides a local and regional description of the environmental setting of the Program, as well as the zoning and General Plan/Community Plan land use designations of the site and its contiguous properties, area topography, drainage characteristics, and vegetation.
- **Chapter 3, Project Description.** This chapter provides a detailed discussion of the proposed Program, including background, objectives, and key features.
- **Chapter 4, Environmental Impact Analysis.** This chapter provides a detailed evaluation of the potential significant environmental impacts associated with the proposed Program. The topics analyzed in this section include air quality, biological resources, energy, geology and soils, greenhouse gas emissions, historic resources, health and safety, hydrology and water quality, land use and planning, noise, recreation, and tribal cultural resources. The analysis of each issue begins with a discussion of the existing conditions, regulatory framework, and a statement of the specific thresholds used to determine the significance of impacts, followed by an evaluation of potential impacts and identification of specific mitigation measures to avoid or reduce significant impacts (if any). A statement regarding the significance of the impact after mitigation is also provided.
- **Chapter 5, Cumulative Impacts.** This chapter analyzes the proposed Program in addition to other cumulative projects in the surrounding area to determine potential impacts as a result of all the projects being implemented. Some topics are inherently cumulative, such as greenhouse gas emissions, and those topics are detailed in Chapter 4 with summaries provided in Chapter 5.
- **Chapter 6, Alternatives.** This chapter provides a description of the alternatives to the proposed Program, including the No Project Alternative and the Increased Access Alternative.
- **Chapter 7, Other CEQA Considerations.** This chapter evaluates the proposed Program's potential growth inducement impacts, specifically the influence the proposed project may have on economic or population growth within the project vicinity and the region, either directly or indirectly. Identifies the issues determined in the initial scoping and environmental review process to be not significant for the project, and briefly summarizes the basis for these determinations. For the proposed Program, it was determined that environmental issues associated with agricultural and forestry resources, mineral resources, public services and

facilities, public utilities, transportation, and visual effects and neighborhood character would not be significant. It also identifies impacts that are significant unavoidable impacts of the proposed Program, as detailed in Chapter 4. This section also describes the potentially significant irreversible changes that may be expected and addresses the use of nonrenewable resources and energy use anticipated during implementation of the proposed Program.

- **Chapter 8, References and List of Preparers.** This chapter identifies references cited in the EIR and all the agencies, organizations, and individuals responsible for the preparation of the EIR.
- **Chapter 9, Mitigation Monitoring and Reporting Program.** This chapter identifies significant impacts and the mitigation measures that would help to reduce such impacts. Included in this chapter are the following: (1) project design features to reduce the potential for environmental effects; (2) mitigation measures to be implemented prior to, during, and after construction of the Mission Bay Park Improvements Program (Program; proposed Program); (3) the individual/agency responsible for that implementation; and (4) criteria for completion or monitoring of the specific measures.

Technical Appendices

Technical reports, used as a basis for much of the environmental analysis in the EIR, have been summarized in the EIR as outlined in Section 15147 of the CEQA Guidelines and are included as appendices to this EIR. The technical reports prepared for the proposed Program and their location in the EIR are listed in the Table of Contents.

Incorporation by Reference

As permitted by CEQA Guidelines Section 15150, this EIR references several technical studies and reports. Information from these documents is briefly summarized in this EIR, and their relationship to this EIR is described in the respective chapters. All reference materials are included in Section 8.1, References, and are hereby incorporated by reference.

1.4 PUBLIC REVIEW PROCESS

1.4.1 NOTICE OF PREPARATION AND SCOPING MEETING

Pursuant to Section 15082 of the CEQA Guidelines, a Notice of Preparation for the Program was released for public review from October 1, 2024, to November 1, 2024. The City held a public scoping meeting on October 16, 2024, at Mission Bay High School located at 2475 Grand Ave, San Diego, California, 92109 to present the proposed Program to the public and to solicit input from interested parties regarding environmental issues to be addressed in this EIR.

The Notice of Preparation for the analysis of the Program, comment letters received, and comments made during the scoping meeting are included as Appendix A. Through these scoping activities, the Program was determined to have the potential to result in significant environmental impacts to the following subject areas:

- Air Quality
- Biological Resources
- Energy
- Geology and Soils
- Greenhouse Gas Emissions
- Health and Safety
- Hydrology and Water Quality
- Historic (Built Environment and Archaeological)
- Land Use and Planning
- Noise
- Recreation
- Tribal Cultural Resources

The intent of this EIR is to determine if implementation of the Program would have a significant effect on the environment through analysis of the issues identified during the scoping process. Each environmental issue area includes the checklist questions used to determine significance of impacts for the particular issue area under evaluation based on the City's CEQA Significance Determination Thresholds (City of San Diego 2023a), an issue statement, an assessment of impacts associated with implementation of the Program, a summary of the significance of impacts, and recommendations for mitigation measures, as appropriate. Pursuant to CEQA Guidelines, Section 15126, all discretionary actions associated with the Program are considered in this EIR when evaluating its potential impacts on the environment, including the construction of improvements on a plan-to-ground basis. The plan-to-ground analysis addresses the changes or impacts that would result from implementation of the Program compared to existing ground conditions.

1.4.2 PUBLIC REVIEW OF THIS EIR

In accordance with the City of San Diego Municipal Code, Section 128.0306, and CEQA Guidelines, Section 15105, the EIR is distributed for review to the public and interested and affected agencies for a review period of 45 days. The purpose of the review period is to allow the public an opportunity to provide comments "on the sufficiency of the document in identifying and analyzing the possible impacts on the environment and ways in which the significant effects of the Program might be avoided and mitigated" (CEQA Guidelines, Section 15204). In accordance with CEQA Guidelines, Sections 15085 and 15087(a)(1), upon completion of the EIR, a Notice of Completion is filed with the California Governor's Office of Planning and Research, and a Notice of Availability of the EIR is issued in a newspaper of general circulation in the area.

1.4.3 FINAL EIR AND PUBLIC HEARING

Following the end of the public review period, the City, as the lead agency, provides written responses to comments received on the EIR per CEQA Guidelines, Section 15088. All comments and responses are considered in the review of the EIR. Detailed responses to the comments received during public review are prepared and are provided in the Final EIR. As part of the EIR finalization process, a Mitigation Monitoring and Reporting Program, Findings of Fact, and a Statement of Overriding Considerations for impacts identified in the EIR as significant and unavoidable are completed. The Final EIR addresses any revisions to the EIR made in response to public or public agency comments. The culmination of this process for this project is a public hearing where the City Council determines whether to certify the Final EIR, which includes adoption of the Mitigation Monitoring and Reporting Program, Findings of Fact, and Statement of Overriding Considerations, as being complete and in accordance with CEQA.

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2 ENVIRONMENTAL SETTING

2.1 PROJECT LOCATION

The proposed Mission Bay Park Improvements Program (Program) is located in the westernmost portion of central City of San Diego (see Figure 2-1, Regional Location). The Program location consists of the Mission Bay Park Improvement Zone (Improvement Zone), located at the coastline in the City of San Diego bounded by the communities of Pacific Beach to the north, Ocean Beach to the south, Mission Beach to the west, and Interstate (I) 5 to the east. The Improvement Zone encompasses the 4,235-acre Mission Bay Park, along with additional areas in all directions; the specific extent of the Improvement Zone is shown on Figure 2-2, Mission Bay Park Improvement Zone – Location. Within the Improvement Zone are various identified sites for known discrete projects within the Program to be analyzed under this Program Environmental Impact Report (EIR). An overview map of the project component locations is provided on Figure 2-3, Mission Bay Park Improvements Program Overview and Elements Locations. The Program consists of seven elements: wetland and water quality improvements, restoration of shoreline, upland habitat and preserve expansion, bicycle and pedestrian improvements, restoration of seawall bulkhead, deferred maintenance, and signage update.

Regional access to the Program site is provided by I-5 from the north and south, and I-8 from the east. Access to each individual element of the Program is provided by local roadways surrounding Mission Bay Park.

The Improvement Zone is within the San Diego Air Basin, which lies in the southwest corner of California and comprises the entire San Diego region, and is subject to the San Diego County Air Pollution Control District guidelines and regulations.

2.1.1 WETLAND AND WATER QUALITY IMPROVEMENTS

The Program includes elements of wetland and water quality improvements, specifically location-specific components: (1) North Fiesta Island (NFI), (2) Tecolote Creek and Fiesta Island Causeway, and (3) Cudahy Creek.

North Fiesta Island

The North Fiesta Island components would cover approximately 50 acres of land located in the northern reach of Fiesta Island and is situated in east Mission Bay as shown in Figure 2-4, Mission Bay Park Improvements Program Elements – Wetland and Water Quality Improvements.

Within North Fiesta Island, there is an approximately 28-acre existing fenced Least tern preserve, adjacent to the northwest of this site, and a kelp drying and sand maintenance/storage area is adjacent to the southwest. Fiesta Bay surrounds the site to the north, east and south, which is open water and recreational areas and with public beaches for swimming, wading, and water sports.

Tecolote Creek and Fiesta Island Causeway

The Tecolote Creek and Fiesta Island Causeway component covers approximately 26.15 acres of water and land in southeastern Mission Bay Park.

Tecolote Creek serves a hydrologic area of approximately 9.71 square miles and discharges stormwater into the southeastern corner of Mission Bay, the furthest point from the Pacific Ocean connection. To the north is Tecolote Shores Park; to the east is East Mission Bay Drive and I-5; to the south is an unpaved parking lot and Fiesta Island Road; and to the west is Bay waters and Fiesta Island as shown in Figure 2-4.

The Fiesta Island Causeway is located directly south of where Tecolote Creek discharges into Mission Bay, as shown on Figure 2-4. The existing causeway connects East Mission Bay Drive with Fiesta Island Road.

The Tecolote Creek and Fiesta Island Causeway consists of 15.64 acres of subtidal/open water, 1.74 acres of disturbed habitat (DH)/upland, 2.63 acres of developed/upland, 1.61 acres of coastal salt marsh, and 4.53 acres of beach.

Cudahy Creek

The Cudahy Creek component covers approximately 9.9 acres of water and land located at Cudahy Creek, along the eastern shoreline of Mission Bay, north of Leisure Lagoon and south of Mission Bay Drive. The Cudahy Creek Cove is an area of open water measuring approximately 5 acres and located along the eastern shoreline of Mission Bay north of Leisure Lagoon and south of Mission Bay Drive, as shown on Figure 2-4. Two storm drain networks connect to the Cudahy Creek Cove area: (1) Cudahy Creek that outlets though a triple reinforced concrete box culvert (each cell 6 feet wide by 5 feet high) where the cove area currently extends closest to East Mission Bay Drive and (2) dual 72-inch reinforced concrete pipes located approximately 750 feet northwest of the Cudahy Creek reinforced concrete boxes along the northwest to southeast aligned shoreline of Cudahy Creek Cove. In the vicinity of the Cudahy Creek outlet there are mudflat areas present during periods of low tide levels. Similarly, a small sand bar/mudflat area is located adjacent to and northwest of the dual reinforced concrete pipes outlet. The upland areas both to the north and south of the cove area have turf cover as well as asphalt parking areas used by day visitors to the area and maintained by the City Parks and Recreation Department.

The Cudahy Creek component consists of 8.1 acres of subtidal/open water, 0.9 acres of disturbed habitat/upland, and 0.9 acres of beach.

2.1.2 RESTORATION OF SHORELINE

The Restoration of Shoreline Element includes eight sites located throughout Mission Bay, which are: 1) Vacation Island NW, 2) Vacation Island NE, 3) Vacation Island SW, 4) Ventura Cove, 5) Crown Point, 6) West Sail Bay, 7) Bonita Cove, and 8) Bahia Point, as shown on Figure 2-5, Mission Bay Park Improvements Program Elements – Restoration of Shoreline.

Bonita Cove

Bonita Cove is located in the southwest corner of Mission Bay. The proposed shoreline restoration would occur on the western portion of the Bonita Cove shoreline.

Ventura Cove Park

Ventura Cove Park is located on the western point north of the Mission Bay Drive bridge. The proposed shoreline restoration would occur on the shoreline to the east of Ventura Cove Beach.

Bahia Point

Bahia Point is located to the north of Ventura Cove Beach, in the southeastern portion of Mission Bay. The proposed shoreline restoration would occur from the northwestern shoreline of Bahia Point to the Ventura Cove Park shoreline.

West Sail Bay

West Sail Bay is located in northwest Mission Bay. The proposed shoreline restoration would occur on the western portion of Sail Bay, along Santa Clara Cove.

Crown Point

Crown Point is located in north Mission Bay and is bisected by Ingraham Street. The proposed shoreline restoration would occur along the southwestern shoreline of Crown Point.

Vacation Island

Vacation Island is located in the middle of Mission Bay and is bisected by Ingraham Street. The proposed shoreline restoration would occur at three locations along the shore of Vacation Island: along the northwest shoreline, along the southeast shoreline, and along the northeast shoreline. The

shoreline restoration at the Vacation Island NE site would occur west of Ingram Street bridge and east of Ingraham Street bridge along Ski Beach.

2.1.3 UPLAND HABITAT EXPANSION PRESERVATION

The proposed upland habitat expansion and preservation area includes all of Fiesta Island, as well as locations along the San Diego River and Sea World Drive, from I-5 to West Mission Bay Drive to the west, as shown on Figure 2-6, Mission Bay Parks Improvement Program Elements – Uplands Habitat and Preserves Expansion.

Fiesta Island Habitat Expansion/Preservation Areas

Four potential habitat expansion/preservation sites on Fiesta Island include Fiesta Island South, Fiesta Island Near Youth Camping, Fiesta Island North Central, and Fiesta Island Least Tern Preserve Area, as shown on Figure 2-6.

Sea World Drive/San Diego River Habitat Expansion/Preservation Areas

Three potential habitat restoration sites were identified for evaluation in this Program EIR along the southern edge of the Improvement Zone adjacent to Sea World Drive and the San Diego River including the Cloverleaf Enhancement Area, Triangle Enhancement Area, and South Shores East Restoration and Enhancement Area, as shown on Figure 2-6.

2.1.4 BICYCLE AND PEDESTRIAN IMPROVEMENTS

Bicycle and pedestrian improvements would occur Bay-wide with three main locations identified as key areas: (1) Rose Creek Bike Path, (2) Fiesta Island Causeway, and (3) Ocean Beach Bike Path, as shown on Figure 2-7, Mission Bay Park Improvements Program Elements – Bicycle and Pedestrian Improvements.

2.1.5 RESTORATION OF THE SEAWALL BULKHEAD

The restoration of the seawall bulkhead would occur along the oceanfront at Pacific Beach and Mission Beach. Two sections of the existing seawall would be replaced. The first section starts at the intersection of Balboa Ct. and continues up to San Fernando Pl. The second region of the element limit starts at the intersection of Ventura Pl. and continues up to Pacific Beach Dr. See Figure 2-8, Mission Bay Parks Improvement Program Elements – Restoration of Seawall Bulkhead, for the location of this element.

2.2 HISTORICAL PHYSICAL CHARACTERISTICS

In 1852, the United States Army constructed the first dike along the south side of the San Diego River to prevent Mission Bay from shifting back to San Diego Bay and created an estuary outlet for the river drainage (which failed soon after construction was completed). During the late 1800s, recreational development took place, but the facilities were destroyed by flooding years later. In the late 1940s, dredging and filling operations began converting the marsh into Mission Bay Park, which is almost entirely man-made. Approximately 50% of the park was once tidelands. Mission Bay was largely developed from the 1940s through the 1960s. Today, levees are present on the north and south sides of the San Diego River, and it no longer drains to Mission Bay (see Figure 2-3, Mission Bay Park Improvements Program Overview and Elements Locations) (SCS Engineers 2006).

2.3 EXISTING PHYSICAL CHARACTERISTICS

The following section provides a local and regional description of the environmental setting of the Program, as well as the zoning and General Plan/Community Plan land use designations of the site and its contiguous properties, area topography, climate, and vegetation.

2.3.1 LAND USE

2.3.1.1 Existing Land Use

The Mission Bay Park Improvement Zone (Improvement Zone) encompasses the 4,235-acre Mission Bay Park, along with additional areas in all directions. Existing land uses within the Improvement Zone are designated as Park, Open Space & Recreation in the City of San Diego General Plan (see Figure 2-9, City of San Diego General Plan Designations). The Improvement Zone is surrounded by Residential, Institutional & Public and Semi-Public Facilities, Multiple Use, and Commercial Employment Retail & Services land use designations. For the City of San Diego's General Plan land use designation of Park, Open Space & Recreation, the recommended Community Plan Designations are Open Space, Population-based Parks, Resource-based Parks, and Private/Commercial Recreation, which are described in detail in Section 4.9, Land Use. The Improvement Zone also includes portions of the Multiple Species Conservation Plan (MSCP) Multi-Habitat Planning Area (MHPA).

2.3.1.2 Adopted Mission Bay Park Master Plan

Mission Bay Park is a regional park that serves the residents of San Diego and visitors. The Improvement Zone encompasses the 4,235-acre Mission Bay Park and falls within the boundaries of the adopted Mission Bay Park Master Plan (MBPMP) – the MBPMP covers approximately 4,600 acres. The MBPMP area is bound by the communities of Mission Beach and Pacific Beach to the west and the north, respectively. Mission Bay Park is bordered by I-5 at its eastern edge and by the communities

of Ocean Beach, Peninsula, and Midway-Pacific Highway south of Robb Athletic Field and the I-8 to the South. The MBPMP includes several land uses, including lease areas, open beach, parkland, playfield, youth camping, wetland habitat, upland preserve, coastal landscape, and salt pannes (City of San Diego 2024a).

2.3.1.3 Existing Zoning

The Improvement Zone includes the following zoning: Residential-Single Unit (RS-1-7), Residential-Multiple Unit (RM-4-10), Mission Beach Planned District Residential-Single Unit (MBPD-R-S), Open Space (OP-1-1), Residential-Single Unit (RS-1-1), Residential-Multiple Unit (RM-2-4), and Residential-Multiple Unit (RM-1-1).

The Improvement Zone is also overlain with several Overlay Zones. The Airport Land Use Compatibility Zone overlaps the central and southern portions of the Improvement Zone. The Mission Beach waterfront and portions of the Rose Creek area are within the Sensitive Coastal Overlay Zone. The Mission Boulevard and West Mission Bay Drive corridors within the Improvement Zone are within the Transit Area Overlay Zone. The entire Improvement Zone is overlain by the Coastal Overlay Zone, the Coastal Height Limit Overlay Zone, the Coastal Overlay Zone First Public Roadway, and the Parking Impact Overlay Zone.

2.3.2 TOPOGRAPHY

The Improvement Zone is generally flat, characterized by the coastal shoreline of the Pacific Ocean and Mission Bay and marshland associated with the mouth of the San Diego Rive, Tecolote Creek, Rose Creek, and the Northern Wildlife Reserve. Elevation gradually increases from west to east. Some coastal bluffs occur in the vicinity of Crown Point, but the slopes do not mee the City of San Diego's definition of "steep slope" (greater than 25% slope and an elevation differential of 50 feet), as shown on Figure 2-10, Mission Bay Improvements Program Topography.

2.3.3 DRAINAGE

The Improvement Zone is situated on a mixed recreation and residential land use area. Current drainage is into streets, storm drains, and gutters that flow into Mission Bay. Grassy park land sheet flows into the Bay. Rose Creek flows in a riprap-lined dredged channel into the Bay (Appendix P, Geotechnical and Geologic Hazard Evaluation for the Mission Bay Park Improvement Project, by The Bodhi Group Inc., June 2025). Portions of the Improvement Zone are within the open water or immediately adjacent to water are identified within special flood hazard areas, including Zones A, AE, and VE, as described below and shown in Figure 2-11, Mission Bay Park Improvements Program Flood Zones (FEMA 2019). These special flood hazard areas are high risk areas, Zones A, AE, and VE are defined as areas subject to inundation by the 1% annual-chance flood event (FEMA 2020).

2.3.4 BIOLOGICAL RESOURCES

A total of 21 vegetation communities and/or land cover types were observed in the Improvement Zone. The vegetation communities occurring in the Improvement Zone, including wetland and upland (Tier I–IV) communities, are identified in Table 3-2 in the Biological Resources Technical Report (Appendix M), and shown on Figures 2-12A–2-12L, Vegetation Communities/Eelgrass.

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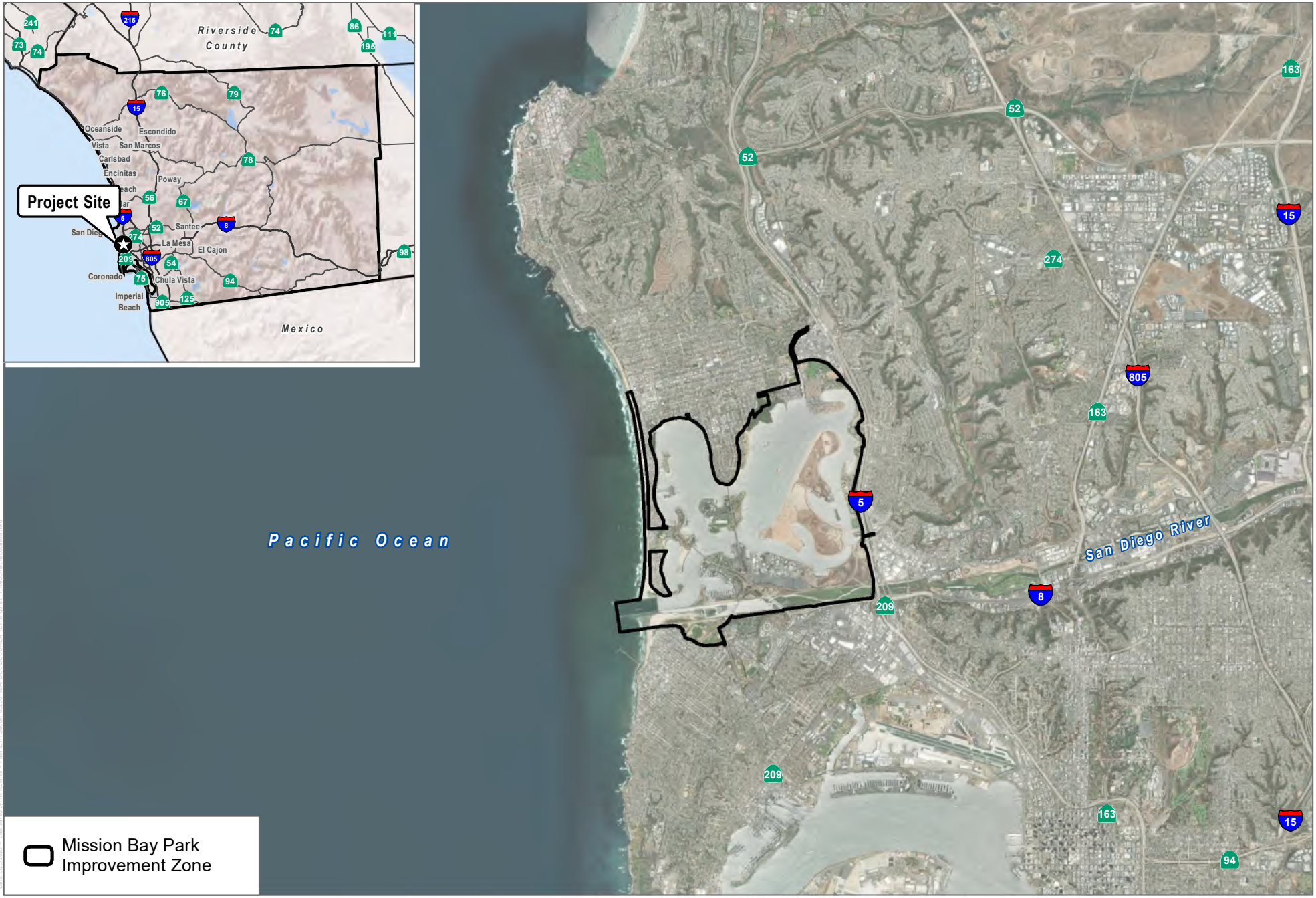

SOURCE: ESRI 2024

DUDEK

0 4,200 8,400 Feet

FIGURE 2-1

Regional Location

Mission Bay Park Improvements Program EIR

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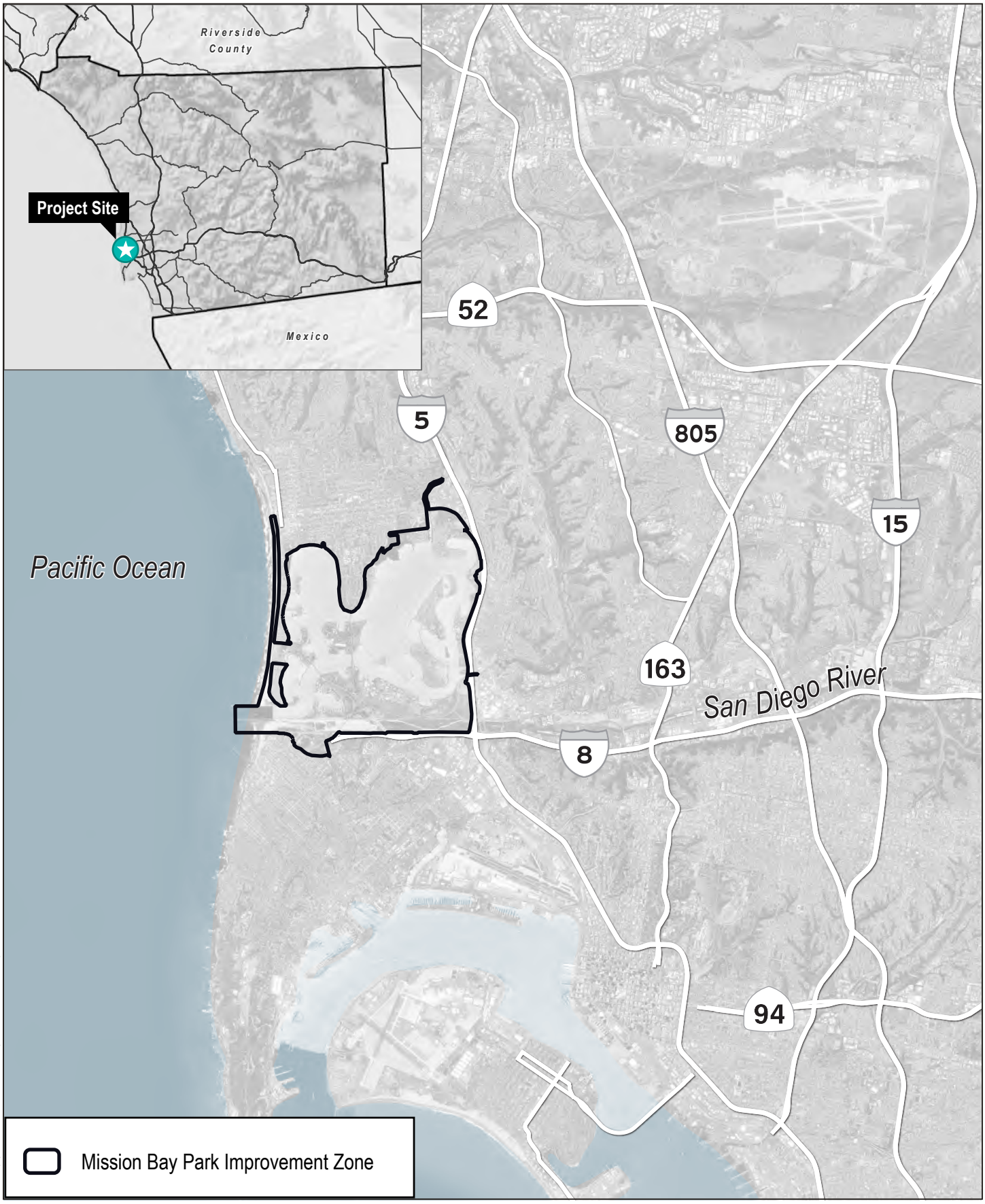

SOURCE: SANGIS 2023

FIGURE 2-2

Mission Bay Park Improvements Program - Location

Mission Bay Park Improvements Program EIR

N

0 4,200 8,400

Feet

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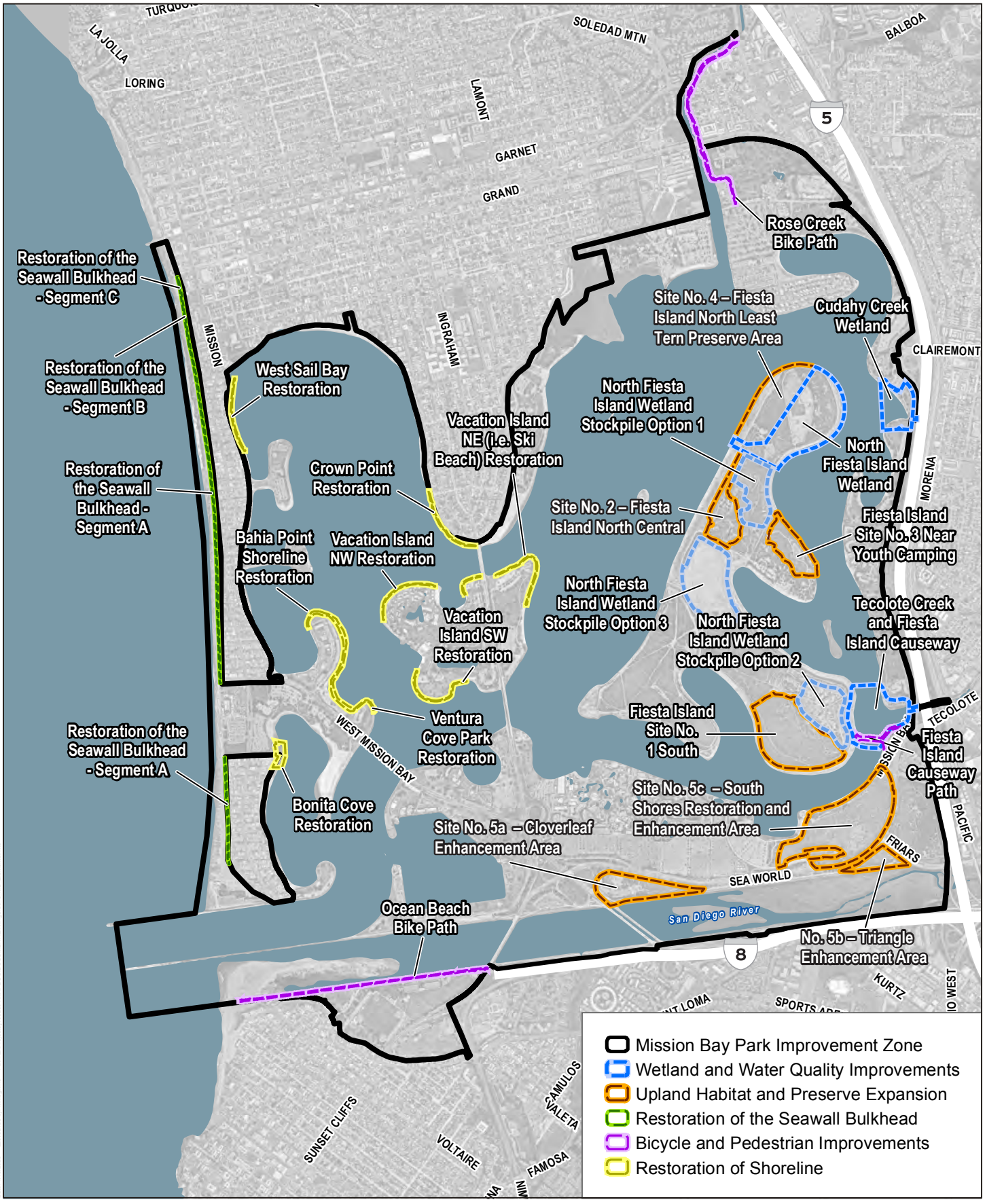

SOURCE: SANGIS 2023

0 900 1,800 Feet

FIGURE 2-3

Mission Bay Park Improvements Program Overview and Elements Locations

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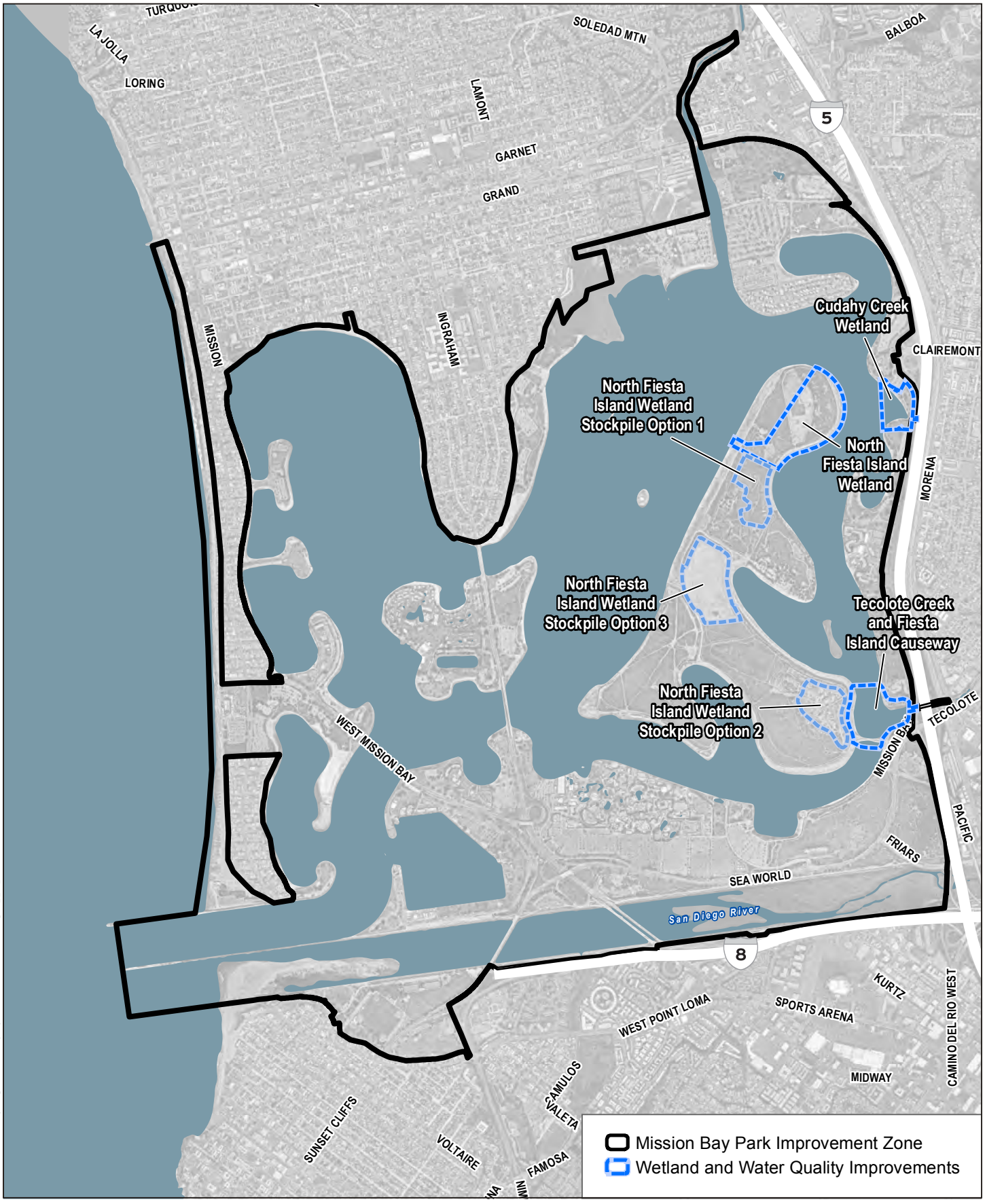

SOURCE: SANGIS 2023

FIGURE 2-4

Mission Bay Park Improvements Program Elements - Wetland and Water Quality Improvements

0 900 1,800 Feet

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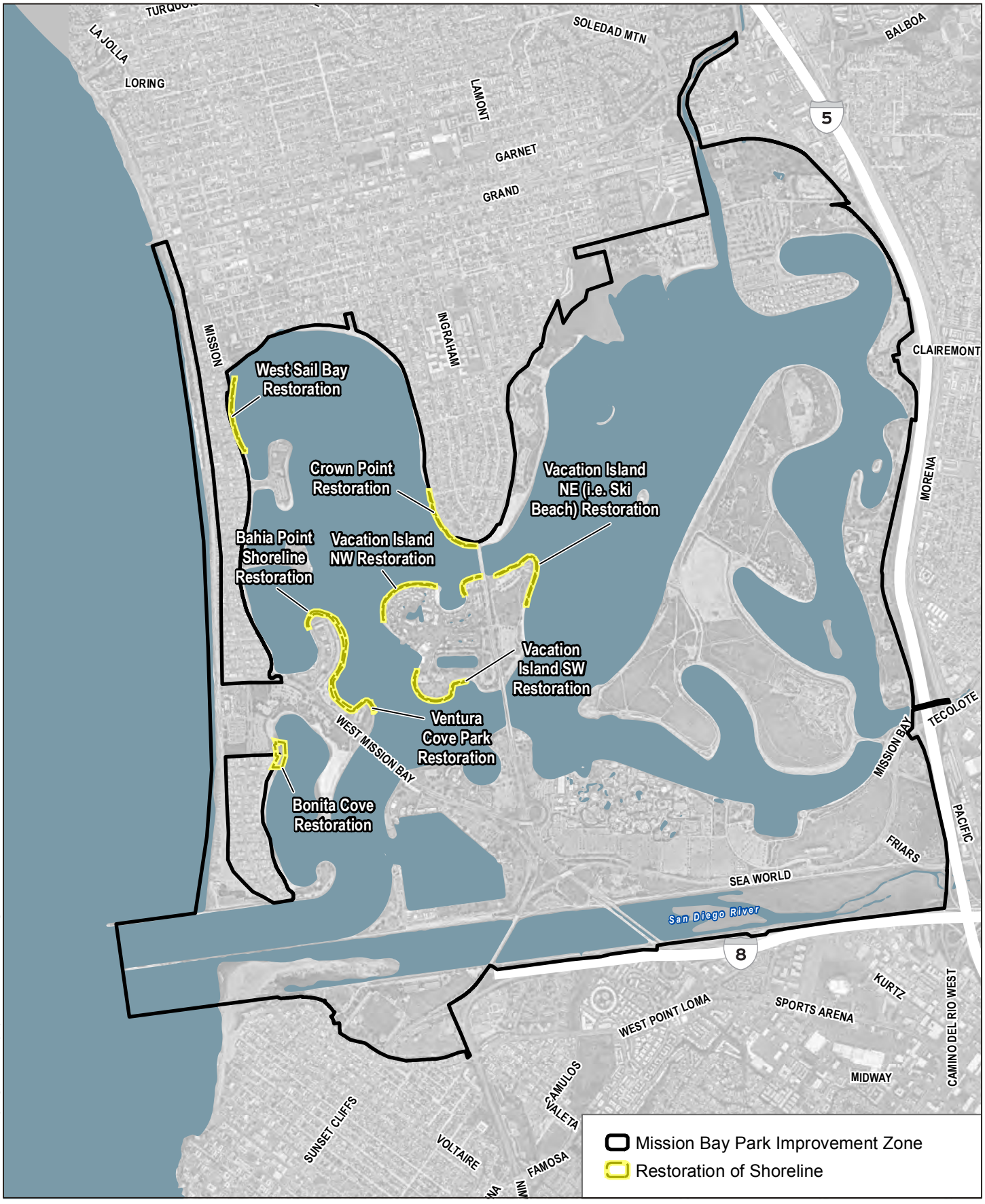

SOURCE: SANGIS 2023

FIGURE 2-5

Mission Bay Park Improvements Program Elements - Restoration of Shoreline

Mission Bay Park Improvements Program EIR

N

0 900 1,800 Feet

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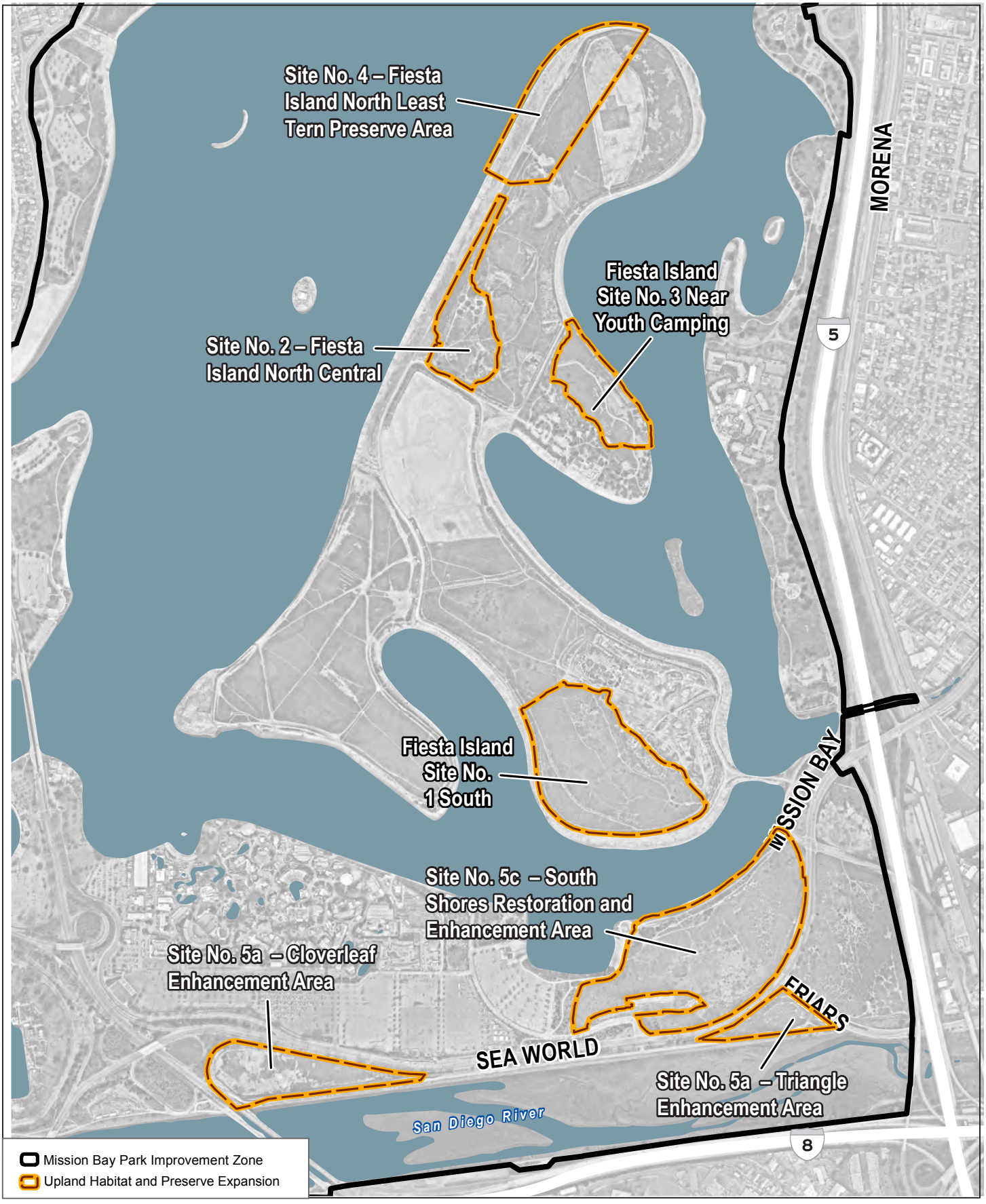

SOURCE: SANGIS 2023

FIGURE 2-6

N

0 900 1,800
Feet

Mission Bay Parks Improvement Program Elements – Uplands Habitat and Preserves Expansion

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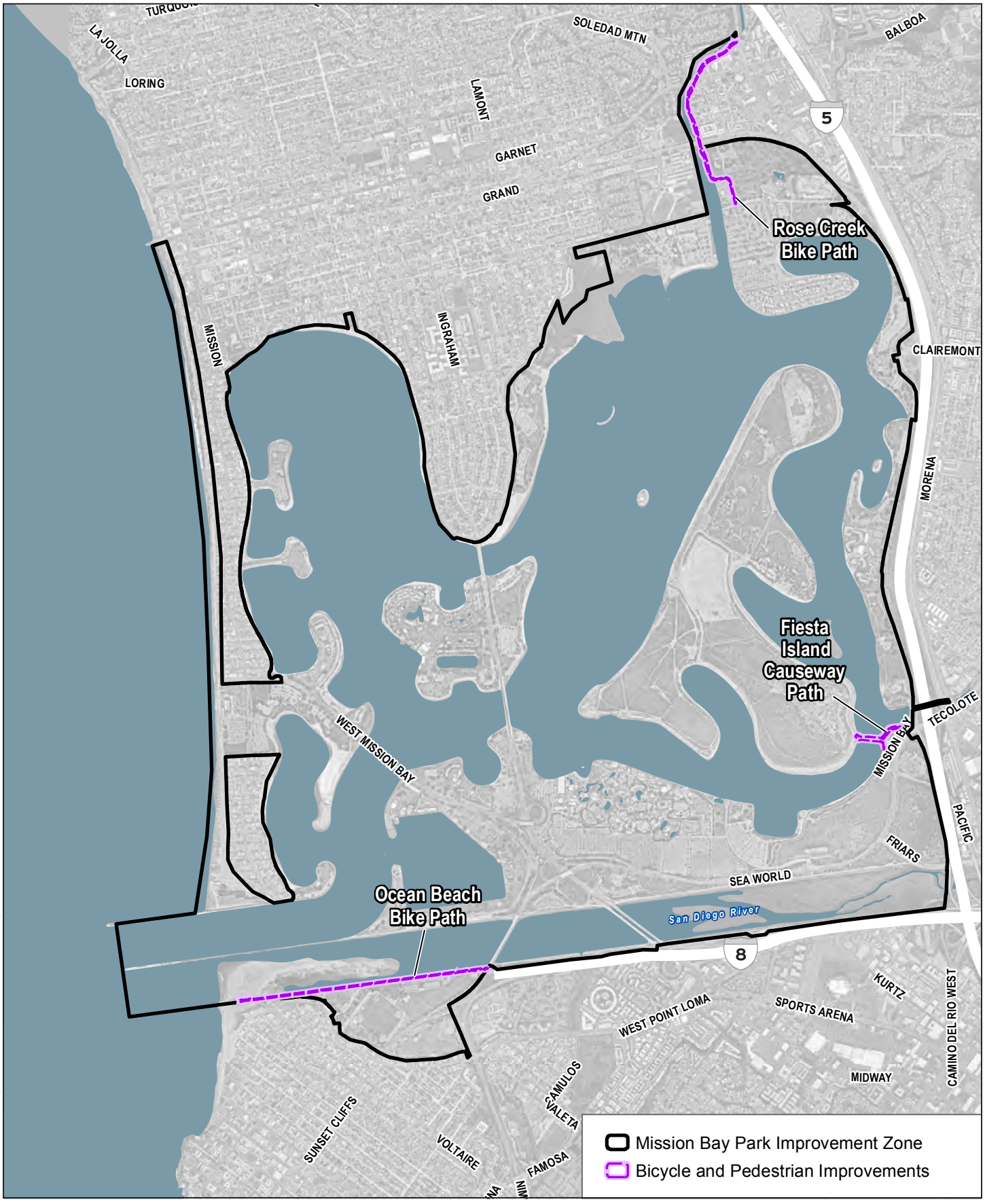

SOURCE: SANGIS 2023

FIGURE 2-7

Mission Bay Park Improvements Program Elements - Bicycle and Pedestrian Improvements

0 900 1,800 Feet

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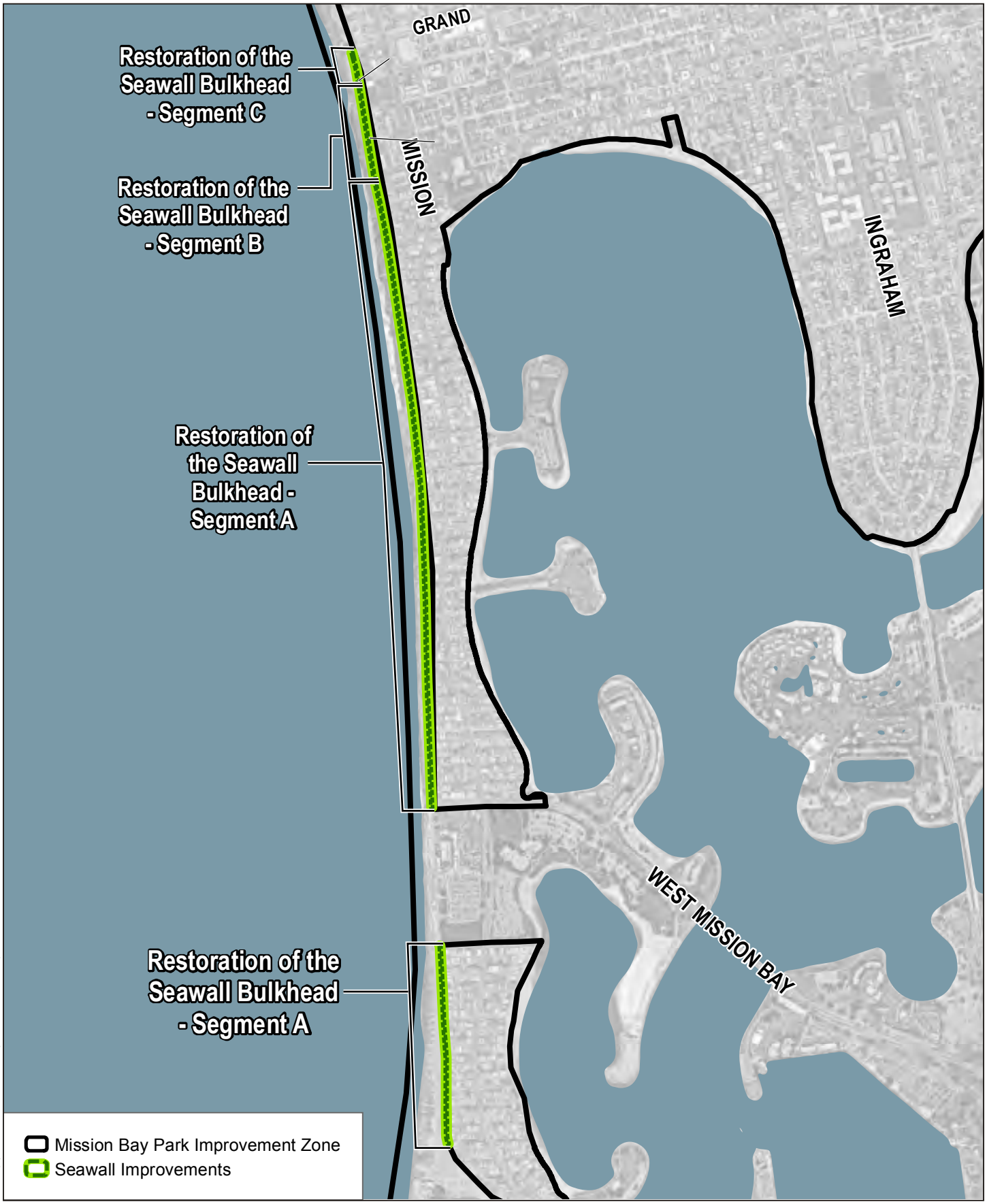

SOURCE: SANGIS 2023

FIGURE 2-8

Mission Bay Parks Improvement Program Elements – Restoration of Seawall Bulkhead

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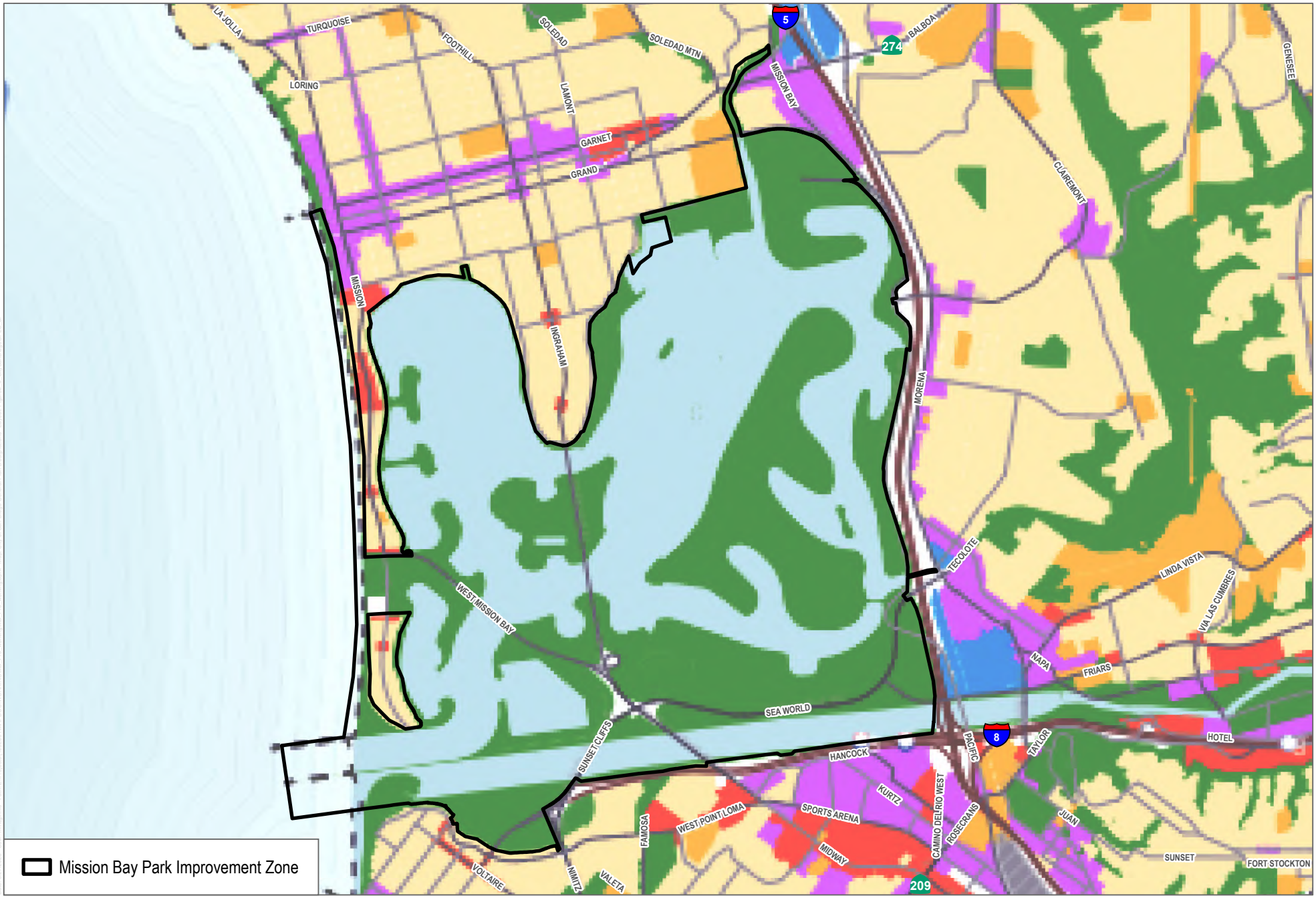

SOURCE: City of San Diego 2024

DUDEK

0 1,850 3,700 Feet

FIGURE 2-9

City of San Diego General Plan Designations

Mission Bay Park Improvements Program EIR

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SOURCE: ESRI 2024

DUDEK

0 900 1,800 Feet

FIGURE 2-10

Mission Bay Park Improvements Program Topography

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SOURCE: ESRI 2024

DUDEK

0 900 1,800 Feet

FIGURE 2-11

Mission Bay Park Improvements Program Flood Zones

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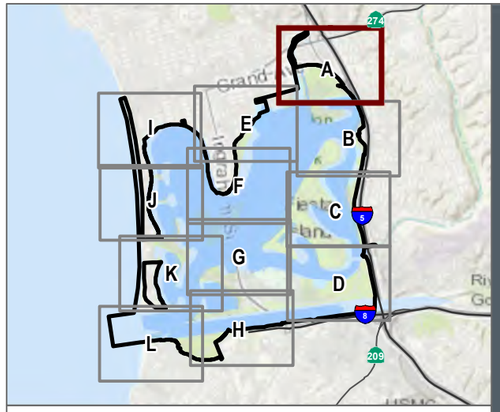

Bicycle and Pedestrian Improvements

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Eelgrass

Vegetation Communities/Land Covers

Bog and Marsh

Coastal and Valley Freshwater Marsh

Disturbed Coastal and Valley Freshwater Marsh

Southern Coastal Salt Marsh

Disturbed or Developed

Urban/Developed

Disturbed Wetland (Arundo)

Riparian and Bottomland Habitat

Disturbed Southern Willow Scrub

Non-Native Riparian

Open Water

Saltpan/Mudflats

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 2-12A

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program EIR

INTENTIONALLY LEFT BLANK

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 2-12B

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program EIR

INTENTIONALLY LEFT BLANK

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 2-12C

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program EIR

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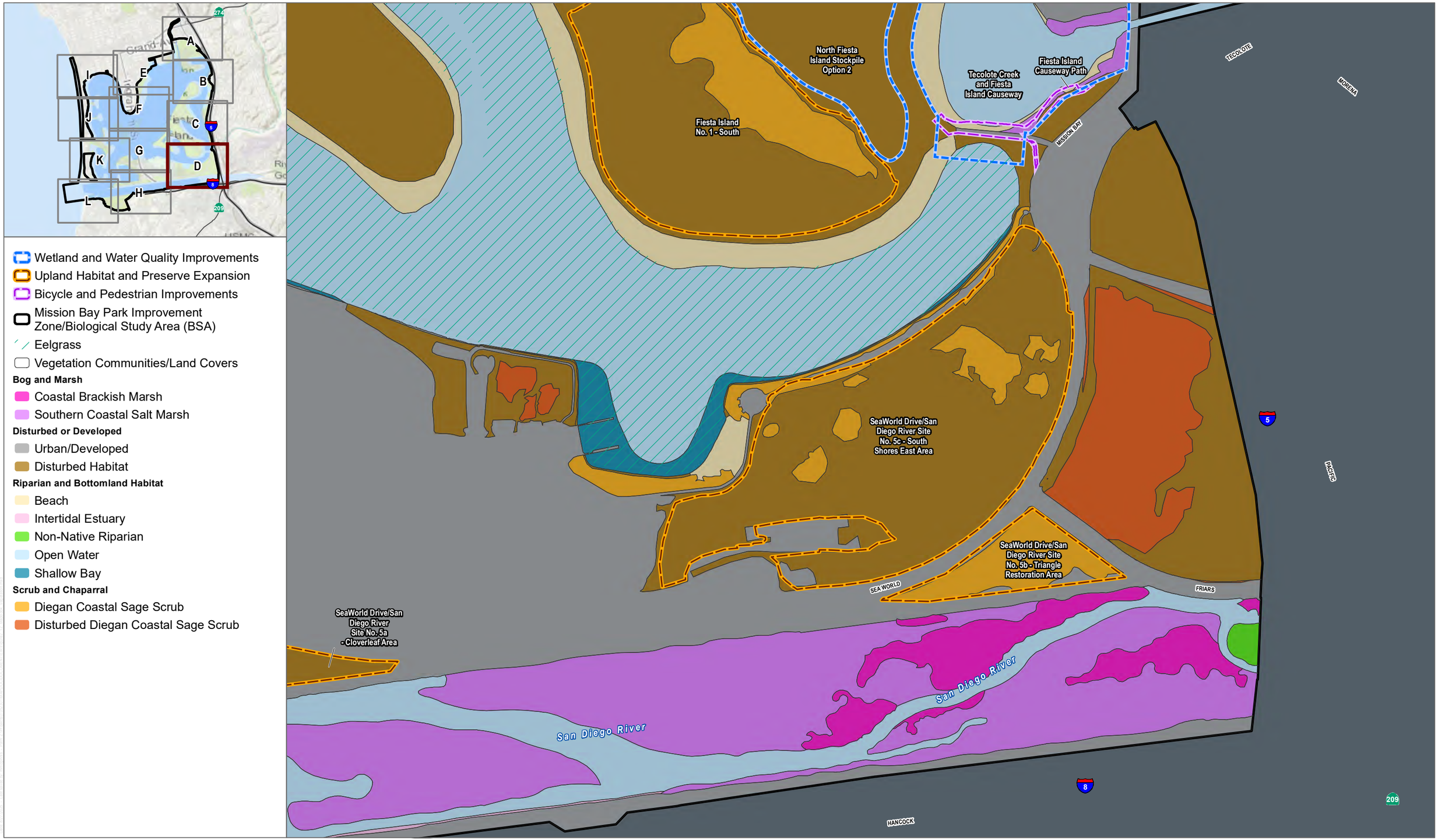

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 2-12D

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program EIR

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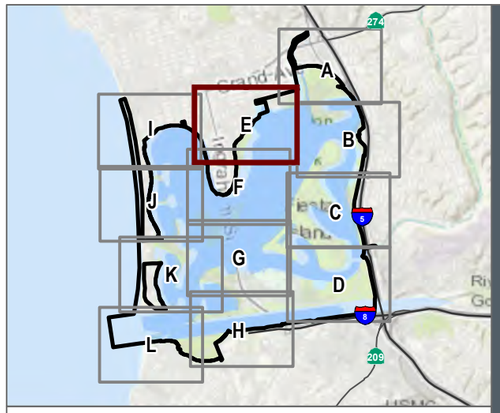

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Eelgrass

Vegetation Communities/Land Covers

Bog and Marsh

Southern Coastal Salt Marsh

Disturbed or Developed

Urban/Developed

Disturbed Habitat

Dunes

Southern Foredunes

Riparian and Bottomland Habitat

Beach

Open Water

Saltpan/Mudflats

Tidal Channel

Scrub and Chaparral

Diegan Coastal Sage Scrub

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 2-12E

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program EIR

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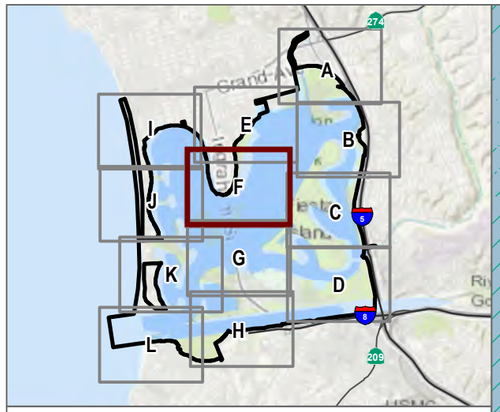

Wetland and Water Quality Improvements
Restoration of Shoreline
Mission Bay Park Improvement Zone/Biological Study Area (BSA)
Eelgrass
Vegetation Communities/Land Covers

Disturbed or Developed

Urban/Developed
Disturbed Habitat

Riparian and Bottomland Habitat

Beach
Open Water
Saltpan/Mudflats

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 2-12F

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program EIR

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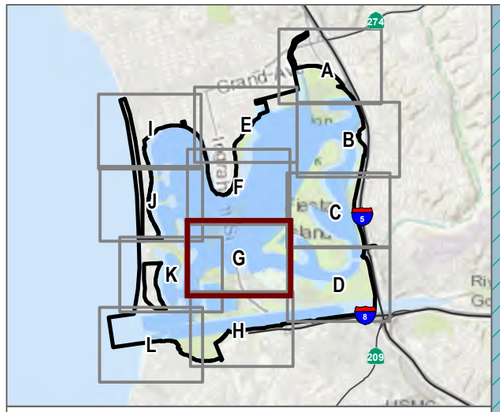

- Wetland and Water Quality Improvements
- Restoration of Shoreline
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Eelgrass
- Vegetation Communities/Land Covers

Disturbed or Developed

- Urban/Developed
- Disturbed Habitat

Riparian and Bottomland Habitat

- Beach
- Open Water
- Shallow Bay

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 2-12G

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program EIR

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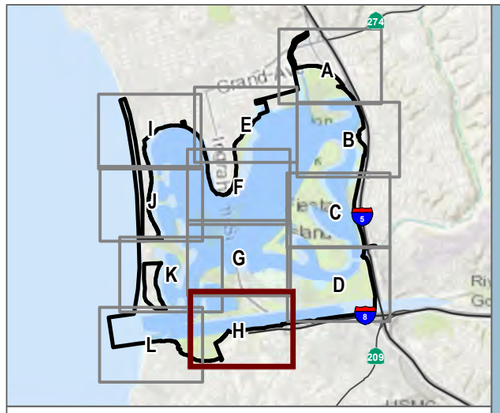


- Upland Habitat and Preserve Expansion
- Bicycle and Pedestrian Improvements
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Eelgrass
- Vegetation Communities/Land Covers

Bog and Marsh

- Southern Coastal Salt Marsh

Disturbed or Developed

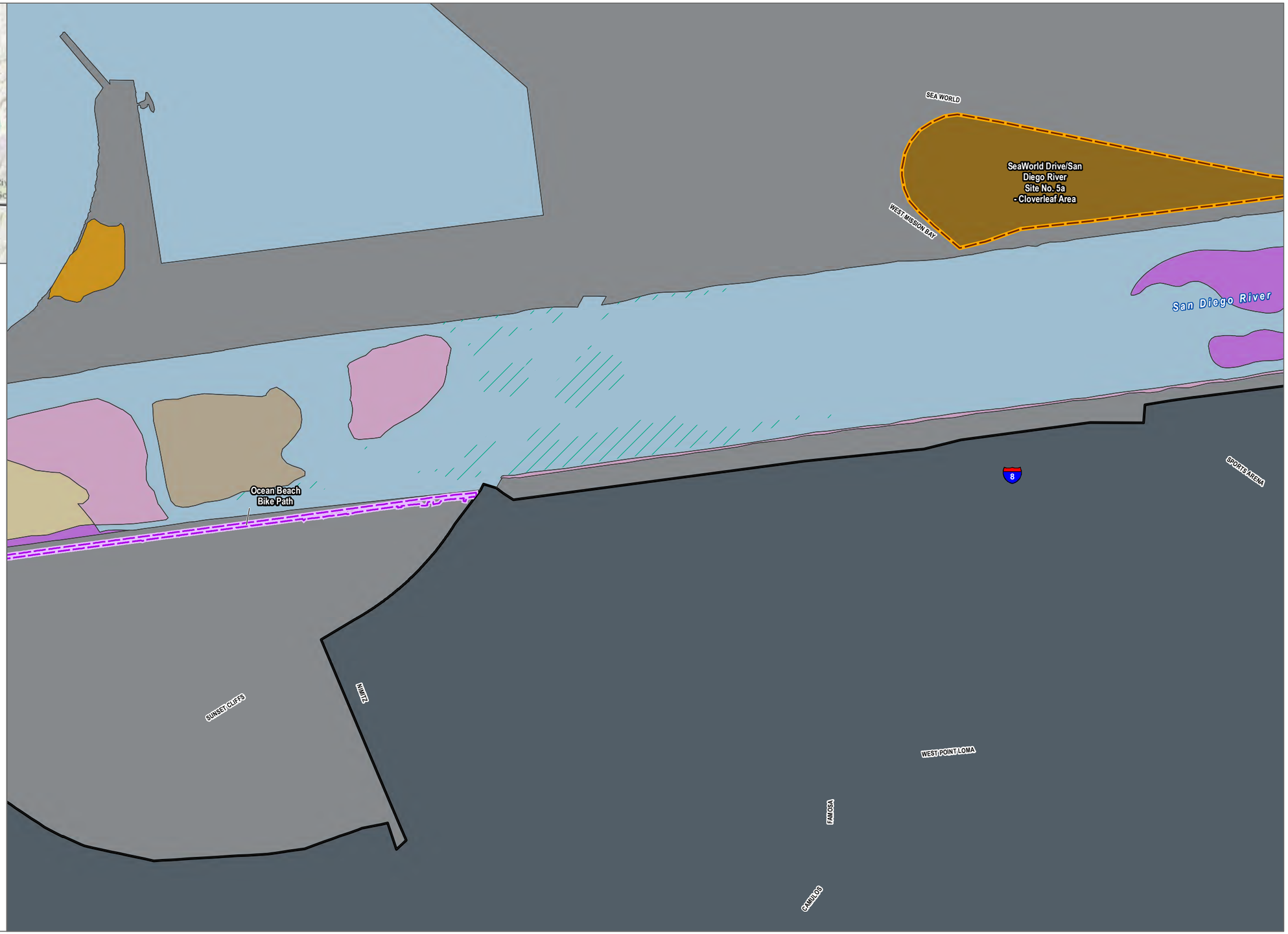
- Urban/Developed
- Disturbed Habitat

Riparian and Bottomland Habitat

- Beach
- Intertidal Estuary
- Open Water
- Saltpan/Mudflats

Scrub and Chaparral

- Diegan Coastal Sage Scrub



SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 2-12H

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program EIR

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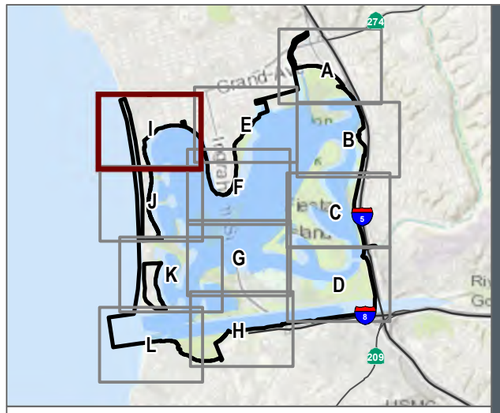


Restoration of the Seawall Bulkhead

Restoration of Shoreline

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Eelgrass

Vegetation Communities/Land Covers

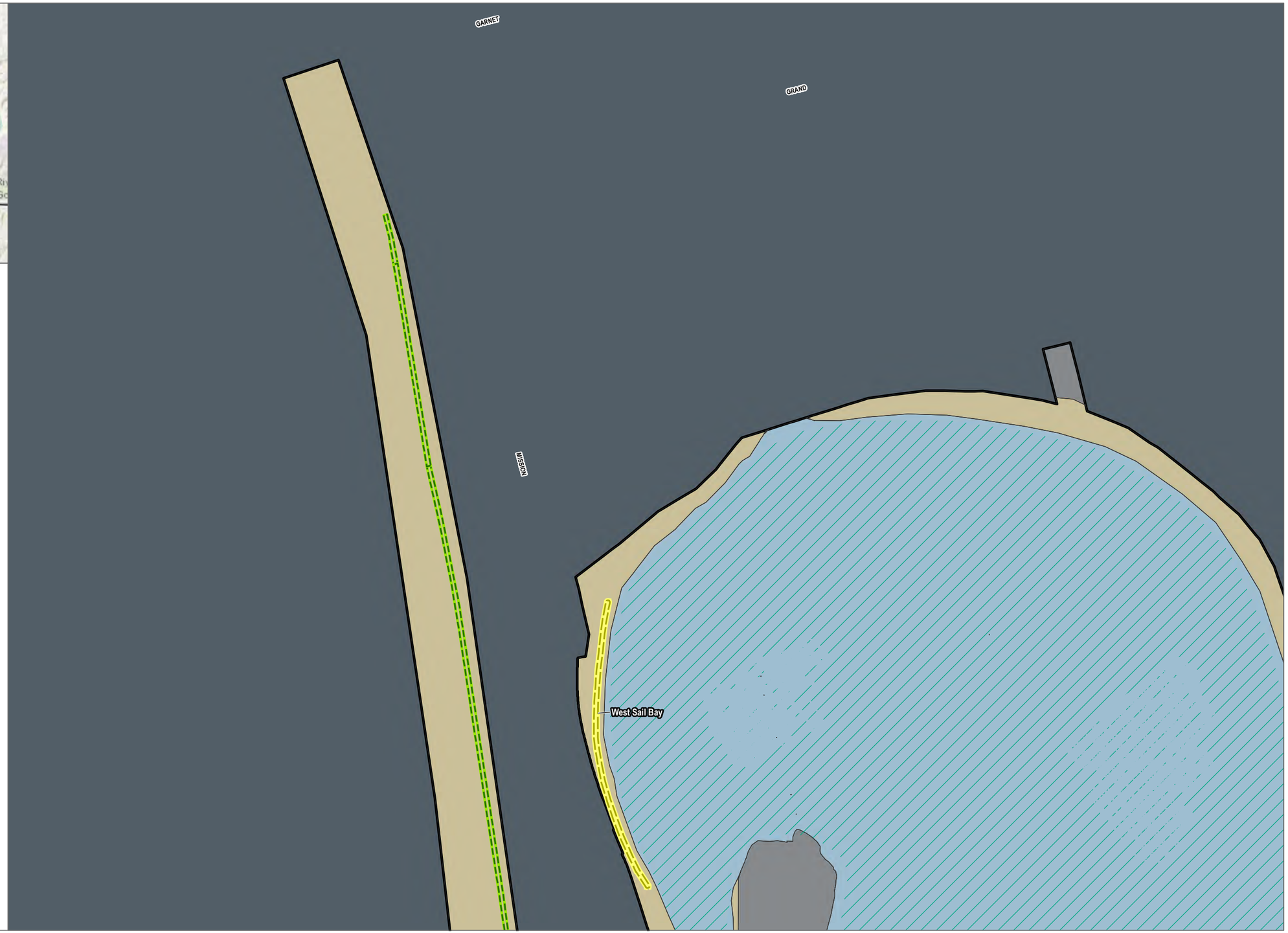
Disturbed or Developed

Urban/Developed

Riparian and Bottomland Habitat

Beach

Open Water



SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 2-12I

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program EIR

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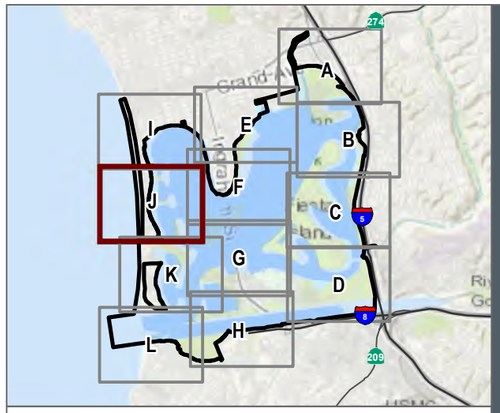

- Restoration of the Seawall Bulkhead
- Restoration of Shoreline
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Eelgrass
- Vegetation Communities/Land Covers

Disturbed or Developed

- Urban/Developed

Riparian and Bottomland Habitat

- Beach
- Open Water

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 2-12J

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program EIR

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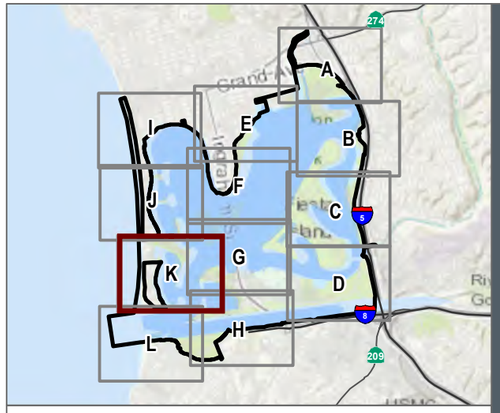

- Restoration of the Seawall Bulkhead
- Restoration of Shoreline
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Eelgrass
- Vegetation Communities/Land Covers

Disturbed or Developed

- Urban/Developed

Riparian and Bottomland Habitat

- Beach
- Open Water
- Shallow Bay

Scrub and Chaparral

- Diegan Coastal Sage Scrub

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 2-12K

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program EIR

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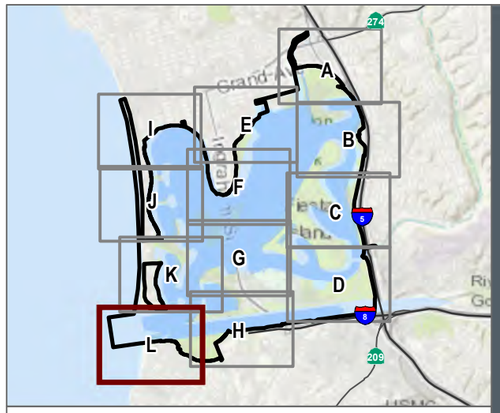

- Bicycle and Pedestrian Improvements
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Vegetation Communities/Land Covers

Bog and Marsh
- Southern Coastal Salt Marsh

Disturbed or Developed
- Urban/Developed

Dunes
- Southern Foredunes

Riparian and Bottomland Habitat
- Beach
- Intertidal Estuary
- Open Water
- Saltpan/Mudflats
- Shallow Bay
- Subtidal

Scrub and Chaparral
- Diegan Coastal Sage Scrub

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 2-12L

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program EIR

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3 PROJECT DESCRIPTION

This chapter provides a description of the Mission Bay Park Improvements Program (Program), the environmental effects of which are evaluated in Chapters 4 through 7 of this Environmental Impact Report (EIR). The Program location, history, purpose and need, and objectives are described below, followed by a description of the Program characteristics and a list of the anticipated discretionary actions. Section 15124 of the California Environmental Quality Act (CEQA) Guidelines sets forth specific technical requirements for a project description and includes items such as the precise location of the site; a statement of the project's objectives; and a general description of the project's technical, economic, and environmental characteristics.

3.1 PROJECT LOCATION

The Program location consists of the Mission Bay Park Improvement Zone (Improvement Zone), as defined in City Charter Section 55.2. Regionally, the Improvement Zone is in the westernmost portion of central City of San Diego, as shown in Figure 3-1, Mission Bay Park Improvements Program. The Program is located at the coastline in the City of San Diego bounded by the communities of Pacific Beach to the north, Ocean Beach to the south, Mission Beach to the west, and Interstate (I) 5 to the east. The Improvement Zone encompasses the 4,235-acre Mission Bay Park, along with additional areas in all directions; the specific extent of the Improvement Zone is shown in Figure 3-1. Within the Improvement Zone are various identified sites for known discrete projects (or "elements") within the Program to be analyzed under this EIR. Specific details of each location are described for each element in Section 3.3, Program Elements. Regional access to the Improvement Zone (Mission Bay) is provided by I-5 from the north and south, and I-8 from the east. Access to each individual element of the Program is provided by local roadways throughout and surrounding Mission Bay Park.

3.2 PROJECT OBJECTIVES

The following project objectives for the Program are based on the goals of Section 55.2 of Article V of the City of San Diego City Charter:

1. Improve Mission Bay Park through wetland expansion, water quality improvements, and the protection and expansion of eelgrass beds as identified in the Mission Bay Park Master Plan.
2. Identify inadequate and failing shorelines within Mission Bay Park, and prioritize shoreline restoration treatments, including restoration of beach sand and stabilization of erosion control features.
3. Expand endangered or threatened species preserves and upland habitats in areas identified in the Mission Bay Park Master Plan, including on North Fiesta Island, along the levee of the San Diego River floodway, and other opportunity areas.

4. Implement deferred maintenance projects, including but not limited to, maintenance and regular replacement of recreational and public safety facilities, to the benefit of park users.
5. Assess deficiencies and gaps in the existing bicycle and pedestrian circulation network to improve overall circulation, safety, and enjoyment of bicyclists and pedestrians in Mission Bay Park.
6. Restore the seawall bulkhead on Oceanfront Walk to a condition no less than the quality of restoration previously performed in 1998 from Thomas Street to Pacific Beach Drive or to conditions as may be required by historic standards.

3.3 PROGRAM ELEMENTS

The proposed Program is intended to address issues related to water quality and water circulation, habitat, and visitor-serving improvements in specifically identified areas. The Program would include implementation of the following elements: Wetland and Water Quality Improvements Element, Shoreline Restoration Element, Upland Habitat and Preserve Expansion Element, Bicycle and Pedestrian Improvements Element, Restoration of Seawall Bulkhead Element, Deferred Maintenance Element, and Signage Update Element. A Preliminary Engineering Report (PER) prepared up to 30% complete designs for each of these location-specific elements.

Certain proposed improvements in the Improvement Zone are in areas that are the subject of the Mission Bay Park Master Plan revisions, specifically for Fiesta Island and DeAnza Cove. The Rose Creek component of the Wetlands and Water Quality Element is not a part of the improvements at this time because the planning process for DeAnza Cove is underway and occurring separately from this effort. The California Coastal Commission Modifications to the Fiesta Island Mission Bay Park Master Plan Amendment were approved by the City of San Diego (City) City Council in 2021, and elements herein on Fiesta Island are designed and evaluated in relation to that amendment and the current Mission Bay Park Master Plan (City of San Diego 2024a).

The proposed Program has specific elements to be implemented throughout Mission Bay Park. The Program is inclusive of site-specific components and Bay-wide programmatic elements, as listed in Table 3-1.

Table 3-1.
Program Elements

Element	Location
Wetland and Water Quality Improvements	North Fiesta Island
	Tecolote Creek and Fiesta Island Causeway
	Cudahy Creek
Restoration of Shoreline	Vacation Island NW

Table 3-1.
Program Elements

Element	Location
	Vacation Island NE
	Vacation Island SW
	Ventura Cove
	Crown Point
	West Sail Bay
	Bonita Cove
	Bahia Point
Upland Habitat and Preserve Expansion	Site No. 1 Fiesta Island South
	Site No. 2 Fiesta Island North Central
	Site No. 3 Fiesta Island Near Youth Camping
	Site No. 4 Fiesta Island Least Tern Preserve Area
	Site No. 5a Sea World Drive/San Diego River Cloverleaf Enhancement Area
	Site No. 5b Sea World Drive/San Diego River Triangle Enhancement Area
	Site No. 5c Sea World Drive/San Diego River South Shores East Restoration
Bicycle and Pedestrian Improvements	Rose Creek Bike Path
	Fiesta Island Causeway**
	Ocean Beach Bike Path
Restoration of Seawall Bulkhead	Mission Beach – Pacific Beach
Deferred Maintenance*	Bay-wide
Signage Update*	Bay-wide

Notes:
* Includes maintenance and signage activities that are typically exempt from CEQA. Included for purposes of disclosure because they are included in Section 55.2 of Article V of the City of San Diego Charter.
** Included as part of 1.b.

3.3.1 WETLAND AND WATER QUALITY IMPROVEMENTS ELEMENT

The Program includes an element consisting of wetland and water quality improvements involving the location-specific components of (1) North Fiesta Island, (2) Tecolote Creek and Fiesta Island Causeway, and (3) Cudahy Creek.

3.3.1.1 North Fiesta Island Component

Location

The North Fiesta Island component is in the northern reach of Fiesta Island and is situated in east Mission Bay, as shown in Figure 3-2, Wetland and Water Quality Improvement Element – a) North Fiesta Island. The North Fiesta Island wetland component site covers approximately 50 acres on Fiesta Island, including upland and beach areas. The low-lying beach is separated from the higher-elevation uplands habitat by the Fiesta Island Road circling the perimeter of the island, and an earthen berm of approximately 3 to 5 feet high from the surface of the perimeter road. The interior uplands area includes portions of the existing Least Tern Preserve, which is subject to relocation as part of the Upland Habitat and Preserve Expansion Element to the northwest of this site. To the southwest the site is bordered by native and non-native vegetation, with informal trails used for passive recreation by visitors. Fiesta Bay surrounds the site to the north, east, and south, which is open water accessible for swimming and boating activities by the adjacent beach.

Description

The North Fiesta Island component would create and restore tidal wetlands on Fiesta Island to improve the water quality of Mission Bay. The North Fiesta Island component site is one of five locations identified in the 2023 update to the Mission Bay Park Master Plan for the expansion of tidal wetlands to address the needs of water quality and enhance habitat in Mission Bay Park while balancing the need for flood control and resource mitigation. As described above, the North Fiesta Island component site covers approximately 50 acres on Fiesta Island. The North Fiesta Island component design consists of restored wetland habitats; wetland hydrology, including several channels; cross-channel bridge access; and fencing, which are further discussed below.

Under the North Fiesta Island component, tides would be introduced to the interior of North Fiesta Island, and the tidal hydrology would support the establishment of tidal wetland habitats. The North Fiesta Island component would create a gradient of balanced habitat types relative to existing conditions through site grading modifications. Site grading would lower the high elevations in the interior of the site and convert the existing non-native uplands to salt marsh. The grading design includes a primary channel, secondary channels, and wetland habitat areas. The orientation of the primary channel is from west to east, and the secondary channels are oriented in a north/south direction. The secondary channels branch off the primary tidal channel and are designed to distribute tidal waters and the nutrients they provide throughout the salt marsh system. Conveyance of seawater throughout the primary channel and secondary channels would create a mix of salt marsh habitat that includes subtidal/eelgrass, mudflats, low marsh, mid marsh, and high marsh. An additional connection to Mission Bay to the subtidal channels would be provided at the north end of

the channels west of a proposed overlook. The North Fiesta Island component also includes a transitional wetland area that allows for upward migration of the marsh as the sea level rises. Non-tidal (i.e., transitional) and upland habitat would persist around the perimeter of the North Fiesta Island component area and would receive restoration treatments under the Upland Habitat and Preserve Expansion Element.

The North Fiesta Island component would be designed to provide a gentle transition from the wetland restoration area into the proposed least tern area to the northwest of the North Fiesta Island component site. The North Fiesta Island component would also provide a native buffer to the east and south of the Least Tern Preserve with implementation of the tidal exchange channels and would establish resources that may be used by least terns for forage and potential nesting opportunities. The Preliminary Engineering Report North Fiesta Island Wetland Restoration (Moffatt & Nichol, July 2025), included in this EIR as Appendix B, provides the background, preliminary design, construction approach, and risk assessment for the North Fiesta Island component (Appendix B).

The listed habitats are a mix of salt marsh habitat, which includes subtidal/eelgrass, mudflats, low marsh, mid marsh, and high marsh, as well as non-tidal (i.e., transitional) and upland habitat. Table 3-2) provides a definition of each type of listed habitat.

Table 3-2.
Habitat Types

Habitat Type	Description
Subtidal	Subtidal habitat is defined as shallow areas of open water that do not drain during each tidal period. Elevation range of below −3.7 feet NGVD 29.
Mudflat	Intertidal mudflat habitat is defined as unvegetated, unconsolidated mud or sand bottom habitat. Mudflat habitat is typically situated low in the intertidal zone, between subtidal habitat and low intertidal salt marsh. Mudflats are inundated and exposed during most tidal cycles. Elevation range from −3.7 to +1.1 feet NGVD 29.
Low Marsh	Intertidal salt marsh that is dominated by California cordgrass (*Spartina foliosa*). Elevation range from +1.1 feet to +1.9 feet NGVD 29.
Mid Marsh	Salt marsh habitat that is inundated irregularly by tides relative to the low marsh, but at a higher frequency than the high marsh. As a result, the plant species that inhabit the mid salt marsh are adapted to high soil salinities and long periods of exposure. Elevation range from +1.9 feet to +3.7 feet NGVD 29.
High Marsh	Intertidal high salt marsh occurs at elevations between mid-salt marsh and supratidal transition zone habitat. The high marsh is irregularly to intermittently flooded and the plants of this marsh habitat are adapted to hypersaline soil conditions. Elevation range from +3.7 feet to approximately +4.8 feet NGVD 29.

Table 3-2.
Habitat Types

Habitat Type	Description
Transitional	Supratidal transition zone habitat occurs between the range of the highest high tides and non-tidal supratidal uplands. These areas represent a transition from the highest salt marsh plant species to upland plant species with both plant assemblages occurring within this relatively narrow elevation band. Elevation range from +4.8 feet to +6.8 feet NGVD 29.
Upland	Uplands are areas above the elevation where flooding generally occurs. Elevation above +6.8 feet NGVD 29.
Beach	Sandy, pebbly, or rocky zone at the water's edge.

Source: Appendix B.

Table 3-3 outlines the existing habitat and proposed salt marsh habitat area for the North Fiesta Island component.

Table 3-3
North Fiesta Island Wetlands Existing and Proposed Habitat

Existing Upland and Beach Habitat*	Mapped Acreage	Proposed Restored Habitat*	Designed Acreage
Least Tern Preserve	14	New Least Tern Preserve	27.9
Subtotal Preserve Area	*14*	*Subtotal Preserve Area*	*27.9*
Subtidal/Open Water	3.0	Subtidal/Open Water	10.8
Mudflat	0.0	Mudflat	4.5
Low Marsh	0.0	Low Marsh	5.1
Mid Marsh	0.0	Mid Marsh	9.2
High Marsh	0.0	High Marsh	9.3
Transitional	0.0	Transitional	2.5
Disturbed Habitat/Upland	27.5	Disturbed Habitat/Upland	3.4
Disturbed Salt Marsh	16.7	Disturbed Salt Marsh	0.0
Beach	15.9	Beach	4.4
Subtotal Remaining Area	*63.1*	*Subtotal Restored Area*	*49.2*
Total Existing Area	**77.1**	**Total Area**	**77.1**

Source: Appendix B.

* Habitats are considered land cover types as classified in the Preliminary Engineering Report. Refer to the Biological Technical Report for specific biological habitat classifications.

The preliminary design also includes the construction of two bridges, fencing, and a gate along Fiesta Island Road. One bridge would connect the Least Tern Preserve to Fiesta Island Road across the western end of the primary tidal channel, and one bridge would cross the eastern end of the primary tidal channel along the east side of Fiesta Island Road. The bridges would span over the proposed main channel, which bisects North Fiesta Island from the remainder of the Island. These bridge facilities would connect North Fiesta Island to Central Fiesta Island and allow public access along the external beach areas. The bridge connecting to the Least Tern Preserve would be restricted to scientific teams, land managers, and maintenance personnel only. Each bridge would be supported by reinforced concrete piles, which would be driven into the existing ground. The proposed bridge over the eastern portion of the proposed inlet (available for public use) would be compliant with the Americans with Disabilities Act (ADA) and approximately 95 feet in length by 25 feet wide and would fully span the proposed main channel. The proposed maintenance bridge over the western portion of the proposed inlet would be approximately 16 feet wide by 95 feet long.

Perimeter fencing is proposed to provide a physical barrier to the Least Tern Preserve, restrict access, and allow the site's vegetative community time to develop and mature post-construction. The fencing would reduce the risk of damage to the salt marsh caused by foot traffic, animals, and unauthorized vehicular traffic. The existing chain-link fence that presently traverses the site would be removed during construction and a new 6-foot-high fence would be installed along the perimeter of the restored wetlands. Once the wetlands are established, the fence may be removed. For as long as the fence is in place, gates would be included to allow authorized access for monitoring and maintenance. A pedestrian and bicycle path would be constructed on the eastern perimeter of the site, stopping at a proposed picnic feature and marsh overlook toward the northern end of North Fiesta Island. Seasonal public access to the proposed pedestrian and bicycle path and public beaches along the eastern shore of the North Fiesta Island component would be restricted during the least tern nesting season.

Construction

Construction is anticipated to occur using conventional earthmoving equipment. The existing site topography is relatively high above groundwater, and there is a large quantity of material to be removed with limited time for removal due to nesting season restrictions and rains. The North Fiesta Island component would necessarily be constructed after the Uplands Habitat and Preserve Expansion Fiesta Island Site No. 4 – Least Tern Preserve Area, with no prescribed duration between the construction activities of these components.

The majority of site excavation would occur above the mean tide level. The average site elevation is approximately 11.2 feet NGVD 29, and the average elevation of the proposed wetland is +2.1 feet NGVD 29, so most of the excavation would be done above the mean tide level of +0.43 feet NGVD 29. The mean tide level is likely to represent the groundwater level encountered during excavation. Lower

elevations would be included in the North Fiesta Island component, which would be at the center of channels near the inverts. Working in dry conditions can be more efficient and require shorter time periods compared to working in wet conditions using a dredge. Approximately 762,500 cubic yards of soil would be removed.

Material Re-Use

Material re-use would be available in the coordination of adjacent wetland restoration projects in Mission Bay under the Program. The material excavated from the North Fiesta Island component would be reused for wetland creation for the Cudahy Creek Wetland Restoration and Tecolote Creek Wetland Restoration components to balance material across the components of the Wetland and Water Quality Improvements Element.

Three stockpile areas have been identified within Fiesta Island for potential stockpiling activities. Stockpile Site #1 would be located in north-central Fiesta Island, adjacent to the North Fiesta Island component restoration site. This is a 15.9-acre area within an existing vegetated area. Stockpile Site #2 would be located near Tecolote Creek at the west end of the Fiesta Island Road causeway. This area is 17.4 acres within the existing kelp drying and sand processing area managed by the City. Stockpile Site #3 would be located at the existing over-the-line tournament area at the center of North Fiesta Island. This area is 29.3 acres. The stockpile options used would be refined upon final design to avoid and minimize potential for direct impacts to sensitive habitat.

A haul route would be established in the center of Fiesta Island, off of the main circulation route, Fiesta Island Road. Earthmoving equipment would be used to transport excavated material a relatively short distance to the stockpile site and would return for another load. Stockpiled material would be stored temporarily and re-used for the two other proposed Wetland and Water Quality Improvements components: Tecolote Creek component and Cudahy Creek component wetlands. Generally, stockpiled material would be stored as mounds or piles of materials. If Stockpile Site #3 is needed, material there would be spread evenly across the site and would be suitable for continued (over-the-line) activities at that site.

If the material cannot be stockpiled on site due to the contamination or condition of the material, it would be hauled off the island to be disposed of appropriately. If the material to be disposed of is classified as non-hazardous contaminated soil, it can be disposed of at the Miramar Landfill; however, capacity or other limitations would apply for disposal. Contaminated soil that is classified as hazardous waste or designated waste must be characterized and disposed of at a facility specially permitted to accept such materials. If wet material is removed, as may occur during excavation of the lower elevations of channels, amphibious excavators may be used. Although construction would likely occur in the dry season, if excavation activities do occur in the wet season, one or more dredges could

be used to pump the material to a disposal or stockpile site. Land-based construction equipment would access the site from the Fiesta Island Causeway from East Mission Bay Drive. If water-based construction equipment is used, it would be delivered over the causeway or delivered over water from Mission Bay.

Construction Equipment

The suite of equipment needed to perform construction of the wetland in the dry condition with stockpiling on the Island is estimated to be as follows:

- Scrapers with a capacity of 30 cubic yards each (5)
- Excavators (4)
- Off-road trucks with a capacity of 16 to 18 cubic yards each (12)
- Front-end loaders (5)
- Bulldozers (5)

Operation and Maintenance

Operations and maintenance would be required for the North Fiesta Island component. The most intensive actions would include the following:

- Trash removal
- Weed removal from transitional habitat areas
- Channel and culvert maintenance
- Perimeter fence repair
- Sea-level rise (SLR) adaptive management

Maintenance would be required regularly to ensure the habitat functions at the highest level possible for the site. Issues with compromised habitat conditions or hydrology would be addressed through adaptive SLR management. Adaptive management may include minor grading, planting, and periodic thin-layer sediment augmentation to maintain appropriate tidal/land elevation relationships that support the target marsh habitat diversity.

3.3.1.2 Tecolote Creek and Fiesta Island Causeway Component

Location

Tecolote Creek serves a hydrologic area of approximately 9.71 square miles and discharges stormwater into the southeastern corner of Mission Bay, the farthest point from the Pacific Ocean connection. To the north is Tecolote Shores Park, to the east are East Mission Bay Drive and I-5, to the south are an unpaved parking lot and Fiesta Island Road, and to the west are Bay waters and Fiesta Island. Refer to Figures 3-3 and 3-6.

The Fiesta Island Causeway is directly south of where Tecolote Creek discharges into Mission Bay, as shown in Figure 3-3, Wetland and Water Quality Improvement Element – b) Tecolote Creek and Fiesta Island Causeway. The existing causeway connects East Mission Bay Drive with Fiesta Island Road.

Description

Tecolote Creek

The Tecolote Creek component would create approximately 12 acres of wetlands in southeastern Mission Bay Park. The preliminary design incorporates the existing tidal channel, which has the appropriate depth and capacity to introduce the full tide range into the proposed restoration site. Freshwater input and stormwater runoff from Tecolote Creek would also affect the wetlands. It is the tidal hydrology, however, that would drive the wetland ecology, to a large extent, and support diverse, self-sustaining salt marsh habitat. The wetland grading design provides for a gentle slope from the constructed wetlands restoration area into Tecolote Shores. A forebay (i.e., sedimentation basin) would be constructed at the mouth of Tecolote Creek. The purpose of the forebay is to capture sediment flowing from Tecolote Creek before it enters the proposed wetlands. Rock scour protection would be installed at the mouth of Tecolote Creek, constructed of 1 ton of rock riprap, to prevent erosion from and reduce velocity of the flowing water. The Preliminary Engineering Report Tecolote Creek Wetland Restoration & Fiesta Island Causeway, Moffatt & Nichol, March 2024, provides detailed preliminary design and construction approach information (Appendix C).

An open, earthen-bottom channel is proposed under the Fiesta Island Causeway. The proposed channel would be 20 feet wide at its bottom, would have an invert elevation of −6 feet (NGVD 29), and would have a bank slope of 3:1 to match the crest elevations of the existing causeway. The open channel would connect the waters north and south of the causeway, which would promote tidal circulation and enhance water quality in areas surrounding east Fiesta Island. A bridge is envisioned to span the open channel to maintain connection between East Mission Bay Drive and Fiesta Island Road, approximately 100 feet long by 60 feet wide. Alternatively, a two-way culvert beneath the existing causeway could be constructed to connect the waters of Mission Bay north and south of the

causeway. It would consist of a large box culvert or several smaller pipe or box culverts that provide equivalent cross-sectional area. The base elevation would be −6 feet NGVD 29; the top elevation would be +10 feet NGVD 29, and the maximum width would be 200 feet at the bottom. The proposed bridge design was the preferred design and is analyzed in this EIR. The construction of a channel is proposed, and a bridge or culvert is proposed to maintain access across the channel. This is further described below under the Fiesta Island Causeway component.

The preliminary design includes substantial earthwork and grading of the site to create a suitable mosaic of salt marsh habitat (subtidal/eelgrass, mudflats, low marsh, mid marsh, high marsh, and buffer area) over a majority of the component area. The Tecolote Creek component would also include a transitional wetland area that allows for upward migration of the marsh as the sea level rises. Non-tidal and upland habitat would persist around the perimeter of the Tecolote Creek component area. The existing beach area on the northern boundary would be transformed into a sand dune with associated coastal strand vegetation. The dune would have a top elevation approximately 6 feet above the road elevation to create a physical barrier and visual screen of vehicular movements on Fiesta Island Road. Higher habitat would occupy a portion of the Tecolote Creek site to transition into upland. Excavation and grading would be required to create the channel under the Fiesta Island Causeway. Table 3-4 outlines existing and proposed habitats and acreages.

Table 3-4.
Existing and Proposed Habitats Acreages

Habitats	Existing Mapped Acreage	Proposed Designed Acreage
Subtidal/Open Water	15.64	3.52
Mudflat	0	2.48
Low Marsh	0	3.35
Mid Marsh	0	6.83
High Marsh	0	3.70
Transitional	0	0.61
Disturbed Habitat/Upland	1.74	0
Developed/Upland	2.63	0
Coastal Salt Marsh	1.61	0
Beach	4.53	0
Upland/Dunes	0	5.23
Marsh	0	0.43
Total Area	**26.15**	**26.15**

Source: Tecolote Creek Wetland Restoration & Fiesta Island Causeway Preliminary Engineering Report

Finally, perimeter fencing is proposed to restrict access and allow the site's vegetative community time to develop and mature post-construction. The fencing would reduce the risk of damage to the salt marsh caused by foot traffic, animals, and unauthorized vehicular traffic. A 6-foot-high chain-link fence is assumed for the Tecolote Creek component. Gates would be included to allow authorized access for monitoring and maintenance.

Fiesta Island Causeway

The Fiesta Island Causeway improvements would create better water circulation in eastern Mission Bay. Specifically, an open channel is proposed to create the desired hydraulic connection between the basins on either side of the existing causeway. A bridge is proposed to span over the open channel to connect the basins north and south of the existing causeway and to maintain the existing connection between East Mission Bay Drive and Fiesta Island Road. The bridge would be constructed of concrete pre-cast girders hauled to the site and placed. It would be ADA compliant and approximately 100 feet in length by 60 feet wide to fully span the approximately 20-foot-wide open channel. A culvert beneath the existing causeway is an alternative option presented in the PER (Appendix C) to provide a water connection of Bay waters north and south of the causeway. However, the open channel option is the design option analyzed in this EIR.

Construction

Tecolote Creek

Construction would occur in the dry areas with earthmoving equipment and would consist of placing 180,000 cubic yards of material into the proposed wetland footprint at the existing location of the Tecolote Creek mouth and east Mission Bay. The material would be sourced from the North Fiesta Island component and delivered from one of the three stockpile sites on Fiesta Island to the Tecolote Creek site in the dry season by truck and placed by earthmovers. Approximately 169,220 cubic yards of material would be available from North Fiesta Island component excavation to be contributed to the restoration at Tecolote Creek. Material stored at stockpile site 2 would be directly adjacent to the Tecolote Creek site, and earthmovers and excavators would be used to move the material. Trucks would be used to deliver material from stockpile sites 1 and 3 using established routes on existing roadways on Fiesta Island. An excavator would sit within the interior of the site to move the material around to gradually fill the site as the material is delivered by truck. The excavator would be able to create the grades required on the grading plans. The site would be filled from the edges toward the middle of the site. A turbidity boom would be placed along the northern boundary of the Tecolote Creek site during construction to protect east Mission Bay from turbidity associated with the filling.

Fiesta Island Causeway

The Fiesta Island Causeway improvements would be installed using excavators to remove the portion of the causeway needed for the channel. As discussed above, a bridge would be installed as a pre-cast structure delivered to the site and set in place; alternatively, it could be designed as a full-span concrete structure poured in place.

A bridge structure would be constructed by drilling cast-in-drilled-hole piles for the substructure, constructing abutments and bent caps, placing pre-cast concrete girders, and then casting the deck and barriers. This would all be accomplished one section at a time, allowing one lane of the causeway to remain open to traffic with flaggers. Once the bridge is finished, the channel would be constructed.

Construction Equipment

The suite of equipment needed to perform construction of the wetland in the dry condition with the delivery of material from the stockpile on the Island is estimated to be as follows:

- Excavators (4)
- Amphibious excavator (1)
- Off-road trucks with a capacity of 18 cubic yards each (12)
- Front-end loaders (5)
- Rubber-tired dozers (5)

The suite of equipment needed to perform construction of the bridge is estimated to include the following:

- Crane (1)
- Bore/drill rig (1)
- Concrete pump (1)
- Excavator (1)
- Dump trucks (2)

Land-based construction equipment would access the wetland site from East Mission Bay Drive, and access to and from Fiesta Island via the causeway.

Operation and Maintenance

Operations and maintenance would be required for the wetland. The most intensive actions may include the following:

- Trash removal

- Weed removal from transitional habitat areas
- Channel and culvert maintenance
- Perimeter fence repair
- SLR adaptive management

Maintenance would occur regularly to ensure the habitat functions at the highest level possible for the site. Periodic maintenance of the forebay in the form of sediment removal would be done by the City.

Issues with compromised habitat conditions or hydrology would need to be addressed through adaptive SLR management. Adaptive management may include minor grading, planting, culvert modifications, and periodic thin-layer sediment augmentation to maintain appropriate tidal/land elevation relationships that support the target marsh habitat diversity.

3.3.1.3 Cudahy Creek Component

Location

Cudahy Creek Cove is an area of open water measuring approximately 5 acres located along the eastern shoreline of Mission Bay north of Leisure Lagoon and south of Mission Bay Drive, as shown in Figure 3-4, Wetland and Water Quality Improvement Element – c) Cudahy Creek. Two storm drain networks connect to the Cudahy Creek Cove area: (1) Cudahy Creek that outlets through a triple reinforced concrete box culvert (each cell measuring 6 feet wide by 5 feet high) where the cove area currently extends closest to East Mission Bay Drive, and (2) dual 72-inch-diameter reinforced concrete pipes located approximately 750 feet northwest of the Cudahy Creek reinforced concrete box along the northern portion of the shoreline of Cudahy Creek Cove. In the vicinity of the Cudahy Creek outlet there are mudflat areas present during periods of low tide. Similarly, a small sand bar/mudflat area is located adjacent to and northwest of the dual reinforced concrete pipe outlet. The upland areas to the north and south of the cove area have turf cover and asphalt parking areas used by day visitors that are maintained by the City Parks and Recreation Department.

Description

The Cudahy Creek component would create 5.2 acres of wetlands within the Cudahy Creek Cove area. The Cudahy Creek component would consist of low salt and mid-salt marsh restoration areas, subtidal channels, berm, oyster bag, and riprap revetment within Cudahy Creek Cove. The Preliminary Engineering Report Cudahy Creek Wetland Restoration (Moffatt & Nichol, March 2024) provides detailed preliminary design and construction approach information (Appendix D). The marshes would provide water quality treatment of stormwater and Bay water, as well as native habitat. Two subtidal channels are proposed to convey flows from the two existing outfalls. A berm is proposed along the

wetland limits along the open water of the Bay. Oyster bags are proposed on the outer fill slope of the restoration area for stabilization and water filtration purposes. Riprap revetment is proposed at the existing outfalls and the connection of the subtidal channels with the open water in the Bay to prevent erosion. Approximately 1,800 linear feet of perimeter fencing would be installed post-construction to restrict access to protect the habitat. See Figure 3-4 for a depiction of the preliminary design and the components. The existing habitat and proposed salt marsh habitat for this component are listed in Table 3-5.

Table 3-5.
Cudahy Creek Existing and Proposed Habitat Areas

Habitat	Existing Acreage	Proposed Acreage
Subtidal/Open Water	8.1	4.0
Mudflat	0.0	0.0
Low Marsh	0.0	3.7
Mid Marsh	0.0	1.5
High Marsh	0.0	0.0
Transitional	0.0	0.3
Disturbed Habitat/Upland	0.9	0.2
Disturbed Salt Marsh	0.0	0.0
Beach	0.9	0.0
Riprap	0.0	0.2
Total Area	**9.9**	**9.9**

Source: Appendix D.

Subtidal Channels

The proposed subtidal channels have two main purposes:

1. During wet weather, provide a connection between each of the two storm drain outfalls and the open water area of Mission Bay (i.e., to provide conveyance for stormwater runoff through the wetland area and to the North Pacific Passage of Mission Bay).
2. Allow tidal fluctuations to result in wetland inundation and subsequent drainage of the proposed wetland areas.

That is, during flood tide conditions, the water level elevations within the subtidal channels would rise with the tide levels and allow Bay water to inundate the salt marsh wetland areas. During ebb tide conditions, the subtidal channels would allow the salt marsh areas to drain by carrying water out of the wetland area and back to the Mission Bay open water. This process of inundation and draining is

necessary for the health of the salt marsh wetland and would provide water quality benefits by circulating water through the wetland, which would result in filtering through the vegetation and wetland soils prior to being returned to the Bay. Depending on the tide level during wet weather, a varying portion of the stormwater runoff would exceed the capacity of the subtidal and flow into the salt marsh area, which would provide water quality benefits to the stormwater runoff.

Subtidal Channel Stabilization

The results of the hydraulic modeling indicate that the subtidal channels would require stabilization at three locations: (1) Cudahy Creek outlet, (2) dual reinforced concrete pipe outlet, and (3) the connection area with the Mission Bay North Pacific Passage.

In the areas of the storm drain outlets, the rock would be at the elevation of the storm drain system for a distance of 30 to 40 feet followed by a transition down to the subtidal channel geometry. In the area of the subtidal channel connection with the North Pacific Passage, the two subtidal channels would merge together, resulting in greater flow and velocity in comparison to the individual channel reaches. Additionally, to increase stormwater runoff flow onto the low salt marsh areas, the subtidal channel geometry at the wetland exit would be manipulated with steps or benches and a reduced channel bottom width. Based on the results of the hydraulic modeling, a riprap class of 2 tons covering approximately 0.2 acres would be required.

Salt Marsh Wetland

A combination of low, transitional, and mid-salt marsh wetland areas are proposed in the Cudahy Creek Cove salt marsh restoration area. Approximately 3.3 acres of low salt marsh area is proposed adjacent to each side of the proposed subtidal channels. The proposed elevation of the low salt marsh would vary slightly to promote drainage of the area during periods between inundations. The proposed elevations are on the lower end of the elevation range in which low salt marsh would be sustainable; the elevations were selected to balance the water quality objective and the habitat mitigation objective. Along the perimeter of Cudahy Creek Cove, approximately 1.4 acres of mid-salt marsh is proposed. The width of the mid-salt marsh would vary slightly, but in general it would be approximately 50 feet. Between the low and mid-salt marsh areas, an area with a width of 12 feet is proposed as transitional. This would result in a design slope of 4:1 (horizontal to vertical), which would have an adequate grade for a quick transition while being flat enough to promote vegetation and reduce the risk of erosion.

Berm Area

A 20-foot-wide berm area is proposed between the proposed salt marsh wetland areas and the North Pacific Passage of Mission Bay for the entire length of the wetland except in the area where the

subtidal channel is proposed to connect to the Mission Bay open water. The berm area would consist of a low salt marsh wetland habitat (approximately 0.35 acres, in addition to the amount described above). The berm would serve to contain water in the wetland areas to promote filtration of the water through the vegetation and to improve the water quality benefit of the system. During periods of high tide there would be a direct exchange of water between the wetland area and Mission Bay (i.e., water would flow over the top of the berm). This inundation is necessary for wetland health and would result in additional water quality benefits.

Oyster Bag Slope

Along the west side of the proposed fill area constructed to create the wetland would be a sloped area that ranges in elevation. The proposed slope would be 10:1 (horizontal to vertical) and has been designed to make a near-seamless connection to the existing slopes of the North Pacific Passage north and south of the proposed wetland area. Oyster bags are proposed along the slope to culture the growth of oysters. Oysters provide water quality benefits through filter-feeding, which removes nutrients from the water by consuming and assimilating the nitrogen and phosphorus into their tissue and shells.

Fencing

Perimeter chain-link fencing is proposed for the Cudahy Creek component to restrict access and allow the site's vegetative community time to develop and mature post-construction. The fencing would reduce the risk of damage to the salt marsh caused by foot traffic, animals, and unauthorized vehicular traffic. An approximately 1,800 linear-foot, 6-foot-high fence is proposed, with gates to allow authorized access for monitoring and maintenance.

Construction

To construct the proposed Cudahy Creek component, it is ideal for conditions to be dry. During the dry season, rain events and discharges at the existing outfall would be minimal. To access the site limits, barges would need to be used when constructing the west side of the component (berm area and confluence of subtidal channel) because it is in the middle of Mission Bay. Furthermore, construction access may be from the shore via shared paths and the shoreline. Equipment used on the shoreline would be stored/staged within the existing parking lot located north of the component limits and west of East Mission Bay Drive.

The quantity of soil to be imported would be approximately 58,000 cubic yards, which would require at least 91 working days. The import material would be sourced from the North Fiesta Island component and delivered from one of the three stockpile sites on Fiesta Island to the Tecolote Creek component site in the dry season by truck or barge and placed by earthmovers.

The suite of equipment needed to perform construction of the wetland in dry and wet conditions is anticipated to include the following:

- Scrapers with a capacity of 30 cubic yards each (5)
- Excavators (4)
- Off-road trucks with a capacity of 16 to 18 cubic yards each (12)
- Barge (1)
- Front-end loaders (5)
- Bulldozers (5)
- Rubber tired dozer (1)
- Tractor/loader/backhoe (1)

Land-based construction equipment would access the site from East Mission Bay Drive. Water-based construction equipment would access the site from Fiesta Island. Equipment and materials would be staged in the adjacent parking lot to the north of the site, and a daily staging area adjacent to the site would be located to the west of the concrete pedestrian path to decrease conflicts between pedestrians and construction activities.

Operation and Maintenance

Operations and maintenance would be required for the wetland. The most intensive actions may include the following:

- Trash removal
- Weed removal from transitional habitat areas
- Channel maintenance
- SLR adaptive management

Maintenance would occur regularly to ensure the habitat functions at the highest level possible for the site. Because nutrients are sometimes mobilized on a grand scale and a bio-fouling community may quickly develop inside culverts when a wetland is initially restored, continued flushing of the wetland system would initially be necessary to reduce the nutrient load and nutrient-dependent marine fouling.

It is anticipated two to four workers would perform monthly maintenance (i.e., trash removal) and two to four workers would perform annual or bi-annual maintenance such as inspections or channel maintenance.

Intended ongoing adaptive management to accommodate sea level rise may include minor grading, planting, and periodic thin-layer sediment augmentation to maintain appropriate tidal/land elevation relationships that support the target marsh habitat diversity.

Sedimentation is anticipated to occur within the Cudahy wetland. However, it is not anticipated to require maintenance. Sediment levels would fluctuate as the marshland experiences cycles of sedimentation and flushing during storm events. Channel maintenance may be required, so it is analyzed in this EIR as an operational activity; however, due to the design of the sub-tidal channels, sediment accumulation to a level that would affect the function of the wetland is not anticipated.

3.3.2 RESTORATION OF SHORELINE ELEMENT

Location

The Restoration of Shoreline Element includes eight sites located throughout Mission Bay. There are various areas identified in Mission Bay where shoreline restoration activities would occur. Restoration of shoreline sites are included in Figures 3-5 through 3-12, and outlined below:

- Vacation Island NW
- Vacation Island NE
- Vacation Island SW
- Ventura Cove
- Crown Point
- West Sail Bay
- Bonita Cove
- Bahia Point

Description

Throughout Mission Bay Park, shorelines have eroded over time leading to narrowed beaches and degraded riprap. As such, the Restoration of Shoreline Element is proposed for the above-listed areas. The following section describes the proposed restoration of shoreline concepts. The Preliminary Engineering Report Mission Bay Program EIR Restoration of Shoreline, Moffatt & Nichol, March 2021 (Appendix E to this EIR), provides detailed preliminary design and construction approach information.

Vacation Island Northwest (NW)

Vacation Island Northwest (NW) shoreline site currently suffers from shoreline erosion. The Mission Bay Hydrology Study (see Appendix T) has identified that tidal currents travel north to this site, and then rapidly change direction with hydraulic energy directed at the eroding shoreline. Maximum velocities adjacent to the eroding shoreline are identified at 0.8 feet per second (fps). The shoreline

restoration concept is intended to restore and stabilize the sandy beach along the northwest corner of Vacation Island. Coarse sand would be placed to widen and elevate the beach. The nourished sand would be retained with two sand retention rock groins, capturing the bi-directional alongshore sediment transport, which is eroding the shoreline. The rock groin at Vacation Island NW is designed with a crest (i.e., bench) elevation of +8 feet NGVD29, 5 feet above the current MHHW line. The rock groin can maintain a sandy beach up to +8 feet NGVD29 in elevation, 1 foot above current beach nourishment design, after which sediment transport would pass horizontally over the crest. The top of the rock groins would be developed with pedestrian access which would be accessible from the beach. See Figure 3-5 for a preliminary concept of Vacation Island NW.

Vacation Island Northeast (NE)

East of Ingraham Street bridge at Ski Beach, beach erosion limits recreational beach space, and wave action has caused upland erosion, with scarps having been carved out of the earthen fill material.

Restoration of Vacation island Northeast (NE) Ski Beach shoreline site would occur in two phases. Phase one of the restoration proposes beach nourishment around the entirety of the point extending the beach approximately 100 feet from the current shoreline. At the toe of beach nourishment, cobble material (typically defined as rounded stone with a diameter of 2.5 to 10 inches [Moffatt & Nichol 2019]) or small boulders of approximately 26,100 tons would be constructed as a berm intended to lessen wave energy and hold the shoreline position. The cobble berm would be backfilled by beach nourishment, creating a wider public beach and providing additional shore protection. Once construction of the cobble berm and beach nourishment are completed, the shoreline restoration site would be monitored for beach erosion and sediment transport patterns with the intention of assessing the feasibility of sand retention measures. If sediment transport and loss is observed during monitoring, phase two of Vacation island Northeast (NE) Ski Beach shoreline restoration would entail the installation of a shore-perpendicular groin at the southern boundary of the nourishment area.

West of Ingraham Street bridge, the shoreline of the public park is a degraded riprap shoreline, likely suffering from wave-induced erosion and potentially back-slope erosion from upland runoff. The West of Ingraham Street concept in Vacation Island NE was developed in conjunction with other similar Mission Bay restoration of shoreline sites: Ventura Cove Park and Vacation Island Southwest. The shoreline concept proposes to stabilize and restore the shoreline by repairing approximately 650 linear feet of the rock revetment west of Ingraham Street. Revetment crest height is proposed to be raised above the existing elevation to improve performance under SLR. A drainage ditch running along the crest of the revetment would channel surface runoff and prevent erosion of the underlying soil. See Figure 3-6 for a preliminary concept of Vacation Island NE.

Vacation Island Southwest (SW)

The Vacation Island Southwest (SW) site is approximately 1,600 linear feet of shoreline armored with riprap and backed by bare soil, bonfire pits, and a footpath. Over 40% of the revetment is failing, losing upland soil, and in need of repair. The crest elevation of revetment varies over the site. Where the revetment is in good condition, the rock extends up to +5 to +6 feet NGVD29. However, in the damaged areas, the riprap only extends up to +3 to +4 feet NGVD29. East of and adjacent to the site, the shoreline was repaired through revetment construction, as a part of the Mission Bay Shoreline Protection Phase III.

In Vacation Island SW, the shoreline restoration concept proposes to repair and improve the revetment at the shoreline similar to previous adjacent repairs. The riprap revetment would be raised up to +8 feet NGVD29, providing additional crest height that accommodates SLR. The crest of the revetment would be buried by sand to create a recreational perched beach. This concept would include oyster habitat improvements. The oyster habitat would consist of rocky substrate, oyster bags, and/or reef balls. In some cases, existing, undersized riprap could be reused for the creation of oyster habitat. See Figure 3-7 for a preliminary concept of Vacation Island SW.

Ventura Cove Park

Ventura Cove is located on the western point north of the Mission Bay Drive bridge. This area has previously been armored; however, the armor only extends up to +2 to +3 feet NGVD29. On the northernmost tip of the Ventura Cove Park, the soil above +3 feet NGVD has given away and created a 4-foot scarp. West of the scarp, 200 feet of previously exposed shoreline had been repaired with large riprap extending up to +6 feet NGVD29. However, the rest of Ventura Cove Park's shoreline remains exposed above +3 feet NGVD29.

The Ventura Cove Park concept proposes to repair and improve the revetment at the shoreline. The riprap revetment would be repaired and the crest would be raised to +8 feet NGVD 29 approximately (2 to 6 feet) to accommodate SLR. A footpath would be constructed parallel to the revetment crest to improve public access, with the added benefit of stabilizing the soil behind the revetment crest. This concept would also include oyster habitat improvements. The oyster habitat would consist of rocky substrate, oyster bags, and/or reef balls. In some cases, existing, undersized riprap could be reused for the creation of oyster habitat. For the purposes of the analysis of this EIR, approximately 8,003 tons of rocky substrate has been analyzed for the construction of the proposed oyster habitat. See Figure 3-8 for a preliminary concept of Ventura Cove Park.

Crown Point

Crown Point, also known as Riviera Shores, has been the site of previous shoreline restoration. The focus of restoration was the design and construction of the Crown Point seawall, and beach fill strategically placed at the northern and southern areas of the seawall (Appendix E). However, Crown Point is currently vulnerable to coastal erosion and SLR, especially south of the Crown Point seawall. A coastal process known as "end effects" has caused increased wave erosion where the seawall transitions to beach. Continuing south from this location, coastal erosion has threatened beach access and the existing public pathway.

Crown Point is located in north Mission Bay and is bisected by Ingraham Street. The concept for Crown Point is to construct a seawall as shoreline protection, extending from the southern end of the existing seawall approximately 150 feet to the south and east. The seawall would follow the alignment of the bike path and gradually diminish in size and transition into the existing public beach. The seawall would match the existing seawall design and create a seamless aesthetic and structural transition protection. The seawall would reflect waves and the fronting beach widths may erode. See Figure 3-9 for a preliminary concept of Crown Point. Consistent with the Mission Bay Park Master Plan as updated in 2023, recommendations to preserve "all natural bluff areas, especially Riviera and Crown Point Shores," this design proposes a shoreline stabilization solution to a vulnerable reach of the Mission Bay shoreline.

West Sail Bay

The beach on the western shore of West Sail Bay has narrowed over time and the erosion now threatens the bayside walk and increases the risk of flooding. West Sail Bay is located in northwest Mission Bay. Beach nourishment is proposed along approximately a one-quarter mile length, to develop a 75-foot-wide beach berm and 50-foot wide beach slope. The beach width at the narrowest location would expand from 20 to 90 feet at high tide. The beach berm is proposed to tie in with the maximum beach heights at West Sail Bay. The beach nourishment would maintain the general function and character of the existing shoreline and would actively advance the shoreline into Mission Bay to protect land-based infrastructure from erosion and wave runup while expanding the sandy beach space for recreational users. Beach nourishment can improve resilience to SLR; as the water level rises, the beach profile retreats inland and rises in elevation. A wide beach could provide protection for several years but would endure slow, continuous erosion requiring future renourishment. Beach grooming may be required in the future to redistribute the sand as it collects to the north and south of West Sail Bay. See Figure 3-10 for a preliminary concept of West Sail Bay. Material for the beach nourishment would come from within Mission Bay as part of dredging or other components herein, or sources available at the time of implementation.

Bonita Cove

Bonita Cove is located in the southwest corner of Mission Bay. As described in the Mission Bay Park Master Plan, it is an area composed of inland parks and residential parcels, existing and proposed recreational beaches, and open water, including existing and proposed mooring basins adjacent to the shoreline . The shoreline in the northwest corner of Bonita Cove has historically eroded, especially in the area of San Fernando Place headland. Due to a process called wave refraction, wave energy tends to focus at convex-shaped headlands, often causing more severe erosion than the adjacent concave-shaped shorelines to the north and south.

The concept for Bonita Cove proposes to relocate the sidewalk and nourish the beach at the headland off San Fernando Place. Relocating the sidewalk up to 30 feet inland would alleviate the immediate coastal erosion threats of undermining infrastructure. A 100-foot-wide dry beach is proposed to advance the land at the San Fernando Place headland. A coarse sand grain size, which is defined as between 2.0 millimeters (mm) and 4.76 mm by the Unified Soil Classification System, is identified for use in this restoration component, the beach would be anticipated to resist erosion for a longer period of time. This beach is anticipated to protect infrastructure and public access for years but would erode over time. To curb such erosion, a 650-foot-long cobble berm is proposed at the toe of the beach nourishment. With the use of soft engineering materials, the berm is intended to lessen wave energy in a similar manner to a breakwater and hold the shoreline position in a similar manner to a revetment. See Figure 3-11 for a preliminary concept of Bonita Cove.

Bahia Point

Bahia Point is located in West Mission Bay, adjacent to the Bahia Hotel Resort, West Mission Bay Drive, Ventura Cove, and Ventura Cove Park. The restoration site was determined to encompass Bahia Point Beach and Ventura Cove Beach, an approximately 3,000 linear foot strip of public space composed of parking lots, grassy park, and sandy beach along the entirety of the site. The shoreline is currently experiencing erosion and stormwater management issues and is projected to experience severe flooding under projected sea-level rise (Appendix E). Based on a review of the available storm drain inventory data from SanGIS, the Bahia Point restoration area has three storm drain outfalls within its limits. These outfalls were analyzed for hydraulic adequacy in the Preliminary Engineering Report Mission Bay Program EIR, Restoration of Shoreline, Moffatt & Nichol, December 2020 (Appendix E).

Past shoreline studies have identified erosion at Bahia Point and Ventura Cove. The erosion rate of Ventura Cove was defined as between 4.6 and 7.8 feet per year (Appendix E). Without human intervention, this rate of erosion could eliminate beaches at high tide within 10 years in certain eroded areas of Ventura Cove and Bahia Point. This site was the focus of a past shoreline restoration project by Pountney Associates in 1994 and 1998 (see Appendix E) from the north tip of Bahia Point to the

east shore, and to the south corner of Bahia Point and Ventura Cove Beach. The prior project entailed grading the shoreline, importing sand fill, and rearranging existing material to eliminate scarps and irregular beach contours.

To improve beach conditions and provide stability to Bahia Point and Ventura Cove, the site concept proposes two simultaneous approaches, or phases, shown in Figure 3-12, consisting of (1) improving and repairing with beach nourishment, cobble breakwater, and stormwater improvements across all outfalls; and (2) installing multiple groin pilot (test) on east Bahia Point adjacent to stormwater outfalls.

The first phase of the Bahia Point shoreline restoration would entail placing beach fill along the entirely of the shoreline within the component footprint. If possible, sand that has slumped into the Bay would be reclaimed by excavating and placing the material upland. This phase would include the installation of a cobble breakwater at the toe of the beach fill at the northern tip of Bahia Point. The stormwater outfalls would also be improved. Flow dissipative features would be installed at three stormwater outlets in Ventura Cove Park and parking lot. The storm drain at the corner of Ventura Cove Beach and Bahia Point would be repaired or replaced. Two PVC stormwater outfalls along east Bahia Point would be repaired and extended. Vehicular beach access routes would be incorporated to allow beach maintenance crews to perform their duties. The routes would be located at the south end of Bahia Bay near the entrance to the Bahia Resort and at the north end of Bahia Point near the restroom facility.

Phase two would be a multiple groin pilot on east Bahia Point. Two small sheetpile groins would be installed: one would be positioned adjacent to the northern end of the Bahia Resort, and one would be position downcoast of the northern groin. The sheetpiles would be installed and sand placed along each side. The pilot groins would be monitored for a year to assess their effectiveness. Following the monitoring period, it would be determined which temporary groins, if any, were effective for sand retention and if they resulted in any unintended secondary impacts permanent structures. After that point the need for permanent groins would be assessed and either replaced with permanent groins or removed For the purposes of the analysis in this EIR, two temporary rock groins would be constructed, one approximately 110 feet long the other approximately 60 feet long.

Construction

Construction means and methods would vary with respect to variables, including site location and improvement type (landside construction or waterside construction). The following section outlines two fundamental approaches to construction (landside and waterside construction).

Landside Construction

Landside construction is a common form of construction for shoreline development projects. The majority of contractors are most familiar with landside construction and have access to land-based equipment. Landside construction occurs in dry conditions, using backhoes, dump trucks, front-end loaders, and other land-based equipment for various construction activities above mean sea level in dry conditions.

Staging Areas and Access

Mobilization and demobilization of equipment and personnel for construction would require access points and staging areas on-site.

Mobilization and demobilization of heavy construction equipment would be brought to the restoration site by way of the regional highway (I-5, I-8, Pacific Coast Highway) and local street network. The larger pieces of equipment would likely be transported to the restoration site on trucks from the late evening to early morning (between 9:00 p.m. and 6:00 a.m.) hours to minimize potential traffic congestion. Additional equipment may be brought onto the restoration site, as the contractor deems necessary; however, this would be considered an isolated case and would not occur on a regular basis. Daily access to the restoration site would be necessary for construction personnel. Periodic dust control along site access routes would be conducted by the construction contractor.

Staging areas would be required for the delivery, storage, and maintenance of equipment and materials. Areas would be selected to minimize impacts to nesting areas and sensitive habitat. Staging areas do not necessarily need to be on-site; however, providing the most efficient access routes for equipment and crew would reduce the construction period and cost. Potential stockpiling options have been identified for several elements such as wetland restoration at North Fiesta Island. Additional stockpiling areas may be used that are in existing City maintenance areas such as an existing yard northeast of Mission Bay by Rose Creek, areas where the circus has set up off Sea World Drive, and parking lots. At the time of subsequent project design and approval, stockpile areas would be refined to avoid potential for impacts to the maximum extent feasible.

The contractor would select construction equipment depending on the availability of equipment to the contractor at the time of construction and on regulatory permit requirements and restrictions. The following list outlines potential equipment to be used for landside construction activities:

- Rubber tired dozer (1)
- Tractor/Loader/backhoes (1)
- Water compaction truck and dewatering pump and tank (1)
- Excavators (2)

- Skid steer loader (or forklift) (2)
- Long reach excavator (1)
- Concrete/industrial saw (1)
- Backhoe or clamshell (1)
- Cement and mortar mixer (1)
- Dump truck (1)
- Pile driver (1)
- Vibratory hammer (1)
- Jetting equipment (1)

Construction Methods

Landside construction would require a minimum of 18 to 20 feet of clear area behind the immediate area of construction to facilitate the mobility of heavy equipment (e.g., excavator). Should landside construction be opted for, it is important to note that long-arm excavators are limited to an approximately 30-foot reach.

Excavation for shoreline treatment would be done with a clamshell or backhoe. Earthwork quantities would be designed to maximize the re-use of material on-site. Fill activities with land-based equipment would use trucks or scrapers and be incorporated into the grading plan as suitable fill. Clean material suitable for transition would be hauled in from off-site or adjacent work areas and placed as appropriate. However, it is possible that portions of excavated material may be disposed of off-site.

Particularly for freshwater wetland construction, performing earthwork in the dry season is preferred over working in the wet season. Dry-season work would require some measure of dewatering to excavate reaches and install stormwater controls. However, the amount of dewatering required during the dry season is much reduced compared to any dewatering needed during the wet season. Working during the wet season may require extensive dewatering, depending on the amount of rain at the site. Dewatering requires pumps to pull water from the marsh and store it in temporary "Baker" tanks for testing. Depending on its condition, the stored water is then either released into a different portion of the marsh or a nearby flood channel or disposed of off site. Dewatering would require obtainment of a dewatering permit from the City prior to commencement of activity.

Beach fill components may be constructed from the landside. It is anticipated that dump trucks would be used to import sand. Sand material would come from (1) dredging activities within Mission Bay per Priority One of the City Charter Section 55.2, Article 5; (2) excavation and stockpiling of material from the Wetland and Water Quality Improvements Element under this Program; or (3) other sources identified by the Sand Compatibility and Opportunistic Use Program (SCOUP), which manages sand resources across coastal California (California Division of Boating and Waterways 2025).

Waterside Construction

Waterside construction may be necessary for specific shoreline restoration sites. Waterside construction would take place in wet conditions, at or below mean sea level. Wet construction would involve working over water so that material below mean sea level could be removed using dredge and/or excavator equipment. Waterside construction would necessarily be paired with land-based construction, at a minimum through the use of a take-off area for equipment and materials to be transported to the water environment.

Staging Areas and Access

Mobilization and demobilization of equipment and personnel for construction would require access points and staging areas. Waterside staging areas may be located on a barge. In order to transport equipment and materials to the site over water, an offloading and onloading area would be required for the vessel and barge. The farther away this site is located, the costlier construction would be. Two possible access areas are the 24th Avenue and Convention Center marine terminals. The use of marine terminals would require coordination with and authorization by the Port of San Diego.

The contractor would select construction equipment depending on the availability of equipment to the contractor at the time of construction and on regulatory permit requirements and restrictions. The following list outlines potential equipment to be used for waterside construction activities:

- Material barge (1)
- Floating barge (1)
- Dredge
- Tugboat (1)
- Support vessel (1)
- Excavator (1)
- Long reach excavator (1)
- Amphibious excavator

Access for waterside equipment must consider water depth and variable oceanographic conditions including water level and wave fluctuations from tidal and storm conditions. Workboats typically require up to 6 feet of water depth to accommodate draft and a barge that is fully loaded with rock material may need up to 12 feet of water depth.

Site Preparation

Waterside construction is restricted by environmental, pedestrian, and commercial activity within Mission Bay. Waterside construction would require a defined waterside boundary to isolate construction activities and protect public activity.

As stated earlier, waterside construction would likely be paired with landside construction and land-based staging and access. This may take place on-site, at the staging area, and the offloading/ onloading wharf. Landside site preparation methods would be applicable in such cases.

Construction Methods

Waterside construction may require dredging activities, especially at beach fill and wetland restoration sites. Hydraulic dredge equipment would be used, including installing a discharge pipe routed from the Bay to the restoration site. Sand sources within Mission Bay include the Mission Bay Channel and existing maintenance dredging sites that have been identified throughout Fiesta Bay and Sail Bay (Appendix T). The hydraulic cutter-head dredge would provide the fastest method of material sourcing and placement and is presumed to be used. Construction with a hydraulic dredge would require the use of a silt curtain to minimize turbidity impacts.

Operation and Maintenance

Operation and maintenance activities would be limited for shoreline restoration elements. However, slow, continuous erosion would occur over time and some areas would need to be re-nourished in the future. For the West Sail Bay component, for example, beach grooming may be required to redistribute the sand as it collects to the north and south of West Sail Bay.

3.3.3 UPLAND HABITAT AND PRESERVE EXPANSION ELEMENT

Location

The proposed upland habitat and preserve expansion areas include four distinct sites across Fiesta Island, as well as three locations along the San Diego River and Sea World Drive, from Interstate 5 to West Mission Bay Drive to the west, as shown in Figure 3-13, Habitat Expansion/Restoration Opportunities Site Reference Map. Seven sites are proposed for habitat and preserve expansion:

- Site No. 1 – Fiesta Island South (Figure 3-14)
- Site No. 2 – Fiesta Island North Central (Figure 3-15)
- Site No. 3 Fiesta Island near Youth Camping (Figure 3-16)
- Site No. 4 – Fiesta Island Least Tern Preserve Area (Figure 3-17)
- Site No. 5a – Cloverleaf Enhancement Area (Figure 3-18)
- Site No. 5b – Triangle Enhancement Area (Figure 3-19)
- Site No. 5c – South Shores Restoration and Enhancement Area (Figure 3-20)

Description

Fiesta Island Habitat and/Preserve Expansion Areas

Table 3-6 summarizes the four proposed habitat and preserve expansion areas on Fiesta Island. The acreage of proposed habitat restoration reflects the opportunity within each identified for expansion. The Preliminary Engineering Report Mission Bay Park Upland Habitat Expansion and Preservation (Dudek, June 2025) provides detailed preliminary design and construction information (Appendix F).

The Upland Habitat and Preserve Expansion Element proposes modification and revegetation of the sand berm that borders each of the proposed restoration sites on Fiesta Island. Conversion of the berms from non-native vegetation to Coastal Strand and Southern Foredune habitat would help to connect these habitat patches with continuous native vegetation communities. The berms presently support non-native species populations that, if left intact, would provide an ongoing source of non-native weed seed that would invade the proposed habitat restoration areas. Treatment of the berms would reduce long-term maintenance and strengthen native vegetation communities within each of the proposed restoration areas.

Table 3-6.
Fiesta Island Upland Habitat and Preserve Expansion

Site	Recommended Habitat Restoration Opportunities Fiesta Island				Import Sand
	Diegan Sage Scrub	*Coastal Strand*	*Southern Foredune*	*Coastal Salt Marsh*	
No. 1 – Fiesta Island South	X	X		X	Yes (berm)
No. 2 – Fiesta Island North Central			X	X	Yes (berm)
No. 3 – Fiesta Island Near Youth Camping	X	X		X	Yes (dune)
No. 4 – Fiesta Island Least Tern Preserve Area		X	X	X	Yes (preserve cap)

Site No. 1 –Fiesta Island South

The proposed habitat expansion area, identified herein as Site No. 1, is situated in the south end of Fiesta Island and lies between the Fiesta Island Road and the existing sand replenishment/seaweed processing maintenance area (see Figure 3-14). The area is bordered by a sand berm that parallels the entire length of the Fiesta Island Road and encloses the southern and western boundaries of this restoration site. Another berm runs along the east side of Site No.1 separating the site from the sand replenishment maintenance area.

Based on fairly undisturbed site conditions and the native species observed in this area, Diegan Coastal Sage Scrub (DCSS), Coastal Strand, and enhancement of the minor occurrence of Southern Coastal Salt Marsh (SCSM) habitat are proposed. DCSS would be established on the broad, flat interior area and Coastal Strand vegetation would be established on the existing berm. In addition, based on the occurrence of Nuttall's lotus, expansion of population size and aerial extent within the site is possible. To achieve this habitat restoration goal, exotic/non-native species would be eradicated throughout the area, followed by the installation of appropriate native species from container plants and seed. The perimeter berm topography would be modified to flatten the side slopes through the placement of additional sand. Additional berm grading would occur to create topographic variation and meandering mounding that resembles dune features. Adequate site preparation would be critical to the success of the restoration effort in this location.

The existing laurel sumac shrubs would be preserved, and appropriate native DCSS species would be introduced to expand the native habitat area. In addition, the minor occurrences of SCSM species in several locations would be linked together where appropriate, and appropriate SCSM species would be introduced.

A temporary irrigation system would be installed to support young container plants and stimulate seed germination and seedling establishment. Irrigation would continue until plant materials become adequately established and adapted to natural site conditions. The proposed irrigation system would be required to comply with the irrigation system standards found in Section II: Irrigation Systems of the City of San Diego Land Development Manual Landscape Standards.

Fencing would be installed along the designated new trail system between the recreational use area and the preserve to protect the area from damage to allow the native revegetation program to take hold, and to prevent visitor access. The perimeter of this habitat expansion area is identified as a Coastal Landscape (Natural Recreation) Area by the Mission Bay Park Master Plan (as shown on Figure 32(a), Fiesta Island Concept Plan, of the Master Plan). Therefore, fencing would prevent those using the multi-use trail and adjacent natural recreational areas from accessing the preserve area.

Site No. 2 – Fiesta Island North Central

The proposed habitat preserve expansion area, referred to herein as Site No. 2, is located in the north-central portion of Fiesta Island, between the central connector road and the proposed North Fiesta Island component (see Figure 3-15). This site is currently used as an informal hiking and dog use area, composed of a network of trails meandering through patches of native and non-native vegetation. The trails are informal and have been formed in natural sand. There is a low elevation access point along the west edge of the site that affords entrance up to the area from a widened parking area off of Fiesta Island Road. The site is bordered to the south by the section of Fiesta Island Road that bifurcates the island and to the west by the portion of the road that follows the perimeter of Fiesta Island. To the north and east of the site is disturbed habitat and southern foredune vegetation interspersed with walking trails. The Fiesta Island Master Plan, Fiesta Island Amendment (City of San Diego, 2023) indicates that future use of the areas north and east of the site would be used as sand management areas. This area is proposed as a soil stockpile area as source materials to construct the Tecolote Creek Wetlands and Cudahy Wetlands restoration sites.

Southern Foredune habitat is proposed for establishment on this site. The natural windy location on the island would provide some benefit to the establishment of the dune habitat. In order to achieve this, the network of informal trails would be eliminated. A more formalized trail is proposed on the Mission Bay Park Master Plan, as shown on Figure 32(a), Fiesta Island Concept Plan, of the Mater Plan, around the perimeter of the restoration area. Fencing and signage would be incorporated into the trail system, to keep trail users and pets out of the restoration area. Further establishment of Southern Foredune habitat is proposed on the existing berm following a similar treatment as described for Site No. 1. Berm modification and establishment of foredune vegetation would extend north to the North Fiesta Island Wetlands component to create habitat connectivity between these resource areas. Additional Southern Foredune establishment is proposed outside the berm on a disturbed area located between Fiesta Island Drive and the berm. Habitat establishment on the berm and adjacent areas would create a larger block of habitat that is more easily maintained and protected.

According to the Mission Bay Park Master Plan (as shown on Figure 32(a), Fiesta Island Concept Plan), the sand replenishment maintenance areas would be relocated to the southeast and north ends of this site, which would include a maintenance road connecting the two areas to the Fiesta Island connector road. It would be important to maintain a buffer zone between the sand replenishment maintenance area and the restoration/preserve area. The sand maintenance activities could compromise the functionality of this habitat due to noise, dust, vehicular access, and other issues. There is also a small low-lying wetland area composed of willows, mule fat, and some coastal salt marsh species near the south-central portion of this site that would be preserved. The removal of invasive/exotic species and weeds and a combination of planting and seeding with appropriate native species would expand and enhance this habitat area.

Site No. 3 – Fiesta Island Near Youth Camping

This proposed habitat preservation area, identified herein as Site No. 3, is located at the northeast end of the Youth Camping facility (see Figure 3-16). The Mission Bay Park Master Plan (as shown on Figure 32(a), Fiesta Island Concept Plan) shows a portion of this youth camping area along the northeast edge of the site up to the Bay edge as a designated habitat preserve. An existing maintenance access road/trail crosses through the area. The easterly edge of this restoration area extends to the edge of the beach along the Bay. The existing paved access road, gate and paved trails would be maintained for continued access by Youth Camping facility users. The road would divide the preserve area in a northwest to southeast direction and would allow for a preserve area on each side of the existing road.

To support establishment of dune communities, sand would be imported to create low-profile dune features of approximately 2 to 4 feet tall relative to existing adjacent landscape elevations. Due to existing topography, the dune would appear taller along the Bay shoreline and shorter when viewed from camping areas to the west. Approximately 21,175 cubic yards of coarse beach sand would be imported to create dune landforms and features. All dune areas would be stabilized with native dune vegetation to protect the landform from wind modification and the need to replenish sand to the area.

Native vegetation communities that are proposed for this area include DCSS, Coastal Strand, and enhancement of existing non-tidal coastal salt marsh vegetation. Interpretive elements would be incorporated along the margins of the existing roads, trails, and habitat preserve areas. Although the area is not intended to function as least tern nesting habitat, there is potential for least tern to nest on the dune feature if birds are attracted to the site.

Site No. 4 – Fiesta Island Least Tern Preserve Area

This preserve expansion, herein referred to as Site No. 4, is located in the northwest end of Fiesta Island, adjacently west of the existing Least Tern Preserve located in the northeast portion of Fiesta Island (see Figure 3-17). Fiesta Island Road and a sand berm run in a northeast-southwest direction through the entirety of the site, and the perimeter fence demarcating the existing Least Tern Preserve runs through a portion of site No. 4.

The proposed grading design provides for 20-foot (horizontal):1-foot (vertical) beach slopes from the water shoreline up to a large level nesting area. The slope into the NFI wetland restoration area would also be set at a 20:1 slope. The nesting area elevation would be set at an elevation above currently predicted year 2100 sea level to avoid inundation in perpetuity. The nesting area would be level or nearly so, allowing for potential small undulations. A small dune feature is proposed at the windward edge of the nesting area to create a visual barrier from the public beach located south of the preserve. The top of the dune feature would be 6-foot higher than the adjacent nesting area with a broad top,

steep windward slopes, and shallow leeward slopes. Total beach 20:1 slope area is 18 acres, flat nesting area is 9.6 acres, and the dune feature is approximately 1.2 acres.

Existing unsuitable soils that contain too many silt and clay particles would be excavated and exported from the preserve area and stockpiled at one of three designated stockpile areas. A 2-foot over-excavation is proposed to allow for 2 feet of suitable import coarse beach sand mixed with shell fragments and potentially driftwood fragments. The total range of estimated soil export is 242,760 cubic yards to 291,312 cubic yards of unsuitable material to be stockpiled at one or more designated stockpile areas on Fiesta Island. Soil would be stored at these areas until the Tecolote Creek and/or Cudahy Creek wetland restoration improvements are constructed. Approximately 67,760 cubic yards of import sand, as described above, would be imported and spreads over the least tern nesting preserve to achieve final designed finish grade elevations. A depth of 2 feet of clean, coarse beach sand is proposed to cap the remaining underlying unsuitable soil to reduce or eliminate recruitment of non-native vegetation that has rendered the existing least tern nesting preserve nonviable. The sand cap material would reduce ongoing maintenance activities and provide nest substrate that is preferable and attractive to least tern.

Sand with shell fragments would be imported and deposited throughout the existing preserve and undulating/mounding topography would be established to provide a more natural condition and improve the least tern nesting functionality. In addition, areas to the northeast and southeast, where non-native vegetation is present would be modified and converted to sand areas to provide expanded least tern nesting opportunities.

A perimeter buffer zone extending from the preserve fence to Fiesta Island Road would be restored to upland coastal strand vegetation. These upland areas would mainly involve restoration of the sand berm around the south, east and north boundaries of the site. This would provide a native vegetation buffer zone around the Least Tern Preserve and more diversity of biological resources. The removal of non-native vegetation would reduce future non-native weed invasion into the preserve.

Planting within the least tern nesting preserve would be limited to the 2-acre dune area and along the fringe of the North Fiesta Island Wetland component site. Native dune vegetation would be planted and established on the dune feature to stabilize the soil surface and minimize sand movement. The Coastal Strand plant palette would be applied to the dune feature, but only low-growing species would be established within the least tern nesting preserve.

This project description is presented under the assumption Site No.4 would be constructed before the North Fiesta Island Wetland component would be constructed adjacently east. The two components have been designed to directly complement each other. Subsequent grading of the North Fiesta Island Wetland Component would daylight at the toe of the downslope into the Least Tern

Preserve at Site No. 5. Final elevations with the wetlands restoration area would be approximately 10 to 12 feet lower than the nesting preserve top elevation. As stated, the connecting slope would be a 20:1 slope gradient into the tidal wetland. Those portions of the Least Tern Preserve that occupy the transitional slope would be revegetated with transitional upland species and potentially coastal strand plant species. Please refer to the NFI Wetland Restoration Preliminary Engineering Report for added details.

Sea World Drive/San Diego River Upland Habitat and Preserve Expansion Areas

Several potential habitat restoration sites were identified for evaluation along the southern edge of the Improvement Zone in association with Sea World Drive and the San Diego River. The following information below addresses the three sites proposed for habitat and preserve expansion, as summarized in Table 3-7.

Table 3-7.
Sea World Drive/San Diego River Upland Habitat Restoration

Site	Recommended Habitat Restoration Opportunities				Import Sand
	Diegan Sage Scrub	*Coastal Strand*	*Southern Foredune*	*Coastal Salt Marsh*	
No. 5a – Cloverleaf Enhancement Area	None	X	None	X	Yes
No. 5b – Triangle Enhancement Area	Enhancement only	None	None	None	No
No. 5c – South Shores Restoration and Enhancement Area	X	X	X	None	Yes

Site No. 5a – Cloverleaf Enhancement Area

This preserve area (Site No. 5a) is located at the west end of the San Diego River access road (old Sea World Drive), adjacent to the current Sea World Drive and West Mission Bay Drive (see Figure 3-18). The area is bordered by an existing chain-link fence surrounding the whole site and also cutting

through the center of the site between the area previously identified as preserve area on the west side of the site and the previous salt marsh mitigation area on the east side of the site. Torrey Pine street trees line Sea World Drive to the north. Proposed exotic species removal and control, expansion of open sand areas, coupled with revegetation of CF, and SCSM species, would enhance the habitat value of this area.

This area was previously identified as a least tern nesting site but has not been used since 1975 except for one year in 1982. Because it has not been a successful site and has many constraints preventing its use as a least tern nesting site, the City has recommended it be released from a permanent nesting site designation (City of San Diego 1990). The City would consider another location for a least tern nesting site on Fiesta Island or consider expanding an existing permanent nesting site by the approximate size of the Cloverleaf. The Site No. 5a enhancement would enhance the habitat that is better suited for this area.

A portion of this site to the east was previously restored as a SCSM mitigation site, and as such may not be able to be modified, other than being enhanced through exotics species removal and control. The condition of the vegetation has degraded since the site was originally restored, because of non-native species invasion; therefore, removal of non-native species and enhancement through native vegetation establishment is proposed.

As part of this proposed restoration, non-native species, including weeds, would be removed and eradicated from the site. Working around and protecting existing native habitat areas, the native habitat areas would be expanded into the adjacent non–native treatment areas to create conditions for CS habitat restoration. Buffer areas within and outside the existing fence would be revegetated to CS. Portions of the site may be suitable as habitat to create a new population of Nuttall's lotus, which would be assessed during component implementation.

In locations where hard compacted soil is present, additional sand would be placed over areas that pond to provide suitable substrate for coastal strand vegetation. Additional sand placement would require 1 to 2 feet of import sand material (approximately 52,982 cubic yards) from Fiesta Island. Minor topographic variation and mounding should be created for microtopographic variation.

Sea World Drive/San Diego River Site No. 5b – Triangle Enhancement Area

Site No. 5b is an existing disturbed DCSS area that has been referred to as the "triangle area." Informal habitat restoration and enhancement activities have previously been implemented in this area by the San Diego Audubon Society. The site is bordered to the north by Sea World Drive, to the east by Friars Road, and to the south by the Old Sea World Drive access road/trail and the rock-armored San Diego River bank (see Figure 3-19).

This area would be targeted for non-native species eradication and native species enhancement. Once eradication is complete, native species would be installed through container planting and seeding to enhance the existing habitat area.

Sea World Drive/San Diego River Site No. 5c – South Shores East Restoration and Enhancement Area

Site No. 5c is an existing DH and disturbed DCSS area, that is bordered by Sea World Drive to the south and east and Mission Bay to the north and west (see Figure 3-20). Portions of this site are part of the former Mission Bay Landfill, which was an active dumpsite in the 1950s, as shown on the Landfill Phases Map, City of San Diego, Mission Bay Landfill (SCS Engineers 2004). The southerly portion of Site 4 falls within the limits of the old landfill, however the northerly portion of the site appears to have been outside of the landfill footprint. The site was previously mapped by Merkel and Associates as a combination of non-native vegetation, DCSS, and disturbed SF. Various sensitive species including Nuttall's lotus were identified in the central portion of the site. More recent biological mapping by Dudek (Dudek, Biological Technical Report) generalized the whole area as disturbed DCSS habitat. This area has patches of DCSS species interspersed with patches of non-native exotic/invasive species. An existing trail runs along the northerly boundary that borders Mission Bay. A few informal trails are interspersed through the northwesterly portion of the site.

Proposed restoration for this site includes upland DCSS restoration and enhancement, because the site is large and has non-native species present which can be removed for habitat enhancement. Also proposed is soil import (i.e., sand, as well as loamy soil) to provide appropriate soils that would support the target native vegetation communities to support establishment of those communities as self-sustaining biological resources. In consideration of the former landfill cap, filling over the landfill would protect buried materials and provide for additional topographic variation to create habitat diversity and microclimates that support species diversity. Site grading of imported soil would be designed to provide topographic variation. Once grading is complete, native species would be installed through container planting and seeding. The area is suitable for restoration of DCSS and Coastal Strand vegetation communities. The Nuttall's lotus population within the center of the site would be protected from disturbance. Only eradication of non-native species would occur in those areas. Opportunities to expand the population would be examined and incorporated into the final design.

Use of Coastal Strand and CSS plant palettes and seed mixes would provide the necessary propagules to establish target vegetation communities. A temporary drip irrigation system would be installed to support container plant establishment. Native seed mixes would be unirrigated and dependent on winter rainfall for germination and establishment.

Construction

Construction would involve weed eradication, fencing, grading and revegetation. Access points for equipment would be provided at each site where grading and soil placement is proposed. Two staging areas for the storage of equipment and supplies are proposed, one on Fiesta Island and the other within Site No. 5c.

The suite of equipment needed would include the following:

- Pick-up truck (4)
- Roll off truck/dump truck (2)
- Tracked skidsteer/dozer (2)
- Chipper (1)
- Mini excavator (1)
- Haul truck (16 cubic yards per load) (5)
- CAT 637 scraper (50 cubic yards) (2)
- Water truck (1)

Within the Fiesta Island area, Fiesta Island Road, a paved access road, navigates the perimeter of the island to provide public access and parking. Parking areas are unpaved and unimproved, including beach parking. At the approximate center of the island, at the head of Enchanted Cove, and west of the Youth Camping area, Fiesta Island Road branches off to the northeast and west, bifurcating the island and providing a cut-through for vehicular access to the west side of the island. All of the Fiesta Island sites can be accessed by the Fiesta Island Road.

Within the San Diego River/Sea World Drive study area, vehicular access to restoration sites is provided from East Mission Bay Drive and Sea World Drive. South Shores Parkway provides vehicular access to Old Sea World Drive, which parallels the San Diego River. Informal parking is afforded off the shoulder of Old Sea World Drive, no formal parking areas exist. This road is now used primarily for recreational purposes (e.g. walking, biking, birding, and resource interpretation access), and would provide access to Site No. 5a, 5b, and 5c.

The import of sand and shell fragment material is proposed for Site No. 4 Least Tern Preserve Area. Additionally, import of sand is proposed for Site No. 3, and import of sand and fertile soil is proposed for Site No. 5c. The source of the material would be the Fiesta Island sand stockpile sources, however sand could come from elsewhere in Mission Bay, as long as it satisfies sand grain size and shell requirements. All material sources would be reviewed and approved by the habitat restoration specialist as appropriate for the intended revegetation efforts. Other materials, including irrigation equipment, soil amendments, plant materials and seed would be brought to the site on an as needed basis and stored as necessary based upon construction scheduling.

The revegetation areas would be maintained and monitored for an initial 120-day period (i.e., 4 months). The 120-day maintenance would be done by the installation contractor.

Operation and Maintenance

Long-term maintenance is required for habitat restoration activities for 25 months post-construction per the City's Land Development Code. Any longer monitoring will be provided as required by agency permits but would be no less than 25 months. Maintenance vehicles (i.e., pick-up trucks) and the size of the maintenance crews would vary depending on the location being maintained. Crews are anticipated to be small, with likely no more than two trucks and a crew of from four to eight laborers and one to two supervisors.

Maintenance and control of non-native exotic species would be an ongoing effort, based upon seasonal conditions and would target the most aggressive and invasive species first. A combination of hand pulling and vegetation thinning would be implemented. Weed control would be implemented in the least environmentally impactive methods. Integrated pest management techniques would be used in the maintenance program.

3.3.4 BICYCLE AND PEDESTRIAN IMPROVEMENTS ELEMENT

Location

The Bicycle and Pedestrian Path Improvements Element is Bay-wide and consists of condition-dependent improvements, updated signage concept for Mission Bay, repairs at parking lots, and sustainable lighting. Specific improvement components for bicycle and pedestrian facilities would be located at Rose Creek, the Fiesta Island Causeway, and the Ocean Beach Bike Path, as shown on Figures 3-21, 3-22, and 3-23.

Description

Some areas are in good condition and require no improvements, such as the recently renovated multi-modal path along portions of SeaWorld Drive. In other areas, gaps or missing connections exist in the multi-modal path, like at Rose Creek. Between these extremes, various improvements are needed, including pavement repairs, wayfinding enhancements, stormwater upgrades, path widening, Americans with Disabilities Act (ADA)-compliant curbs, and safety measures. Where appropriate, sustainable lighting and parking lot repairs are also part of the component.

Pavement improvements are a key design component across all four focus areas of this component. Sub-standard pavement in existing areas would be removed and replaced. Based on previous similar bike projects, the preliminary design would use a 3-inch asphalt concrete over 9-inch crushed aggregate base. In areas with longitudinal slopes greater than 5%, undercrossing bridges, and locations directly adjacent to major roadways, a more robust design of 6-inch Portland cement concrete (PCC) over an 18-inch crushed aggregate base would be applied. This pavement section is a

conservative estimate derived from comparable projects. The final pavement design would be determined by the geotechnical engineer during final design phase. Additionally, fencing and pedestrian railings would be installed in certain areas to enhance safety by separating pedestrians from vehicles.

Retaining walls and concrete barriers are proposed for the Fiesta Island Causeway. Using these protective barriers can enhance safety and allow a variety of users to continue using these bike paths. Retaining walls or concrete barriers are not proposed for the Ocean Beach Bike Path ~~and the Rose Creek Bike Path~~ improvements. However, retaining walls may be required for the Rose Creek Bike Path pending further geotechnical retaining wall and allowable fill slope requirements adjacent to Rose Creek.

The four improvement areas would be designed according to the standards in the Highway Design Manual (Caltrans 2020) and the ADA's Standards for Accessible Design (Department of Justice 2010).

The Preliminary Engineering Report Mission Bay Improvement Zone Bicycle and Pedestrian Paths, RICK, May 2024, provides detailed preliminary design and construction approach information (Appendix G). The following are specific improvements identified for this element.

Rose Creek Bike Path

The Rose Creek Bike Path requires the removal and replacement of an approximately 0.85 mile section of the existing bike path. The existing non-standard bike path (0.85 miles) needs to be replaced and widened due to poor pavement conditions. The path would be 14 feet wide with a 2% cross-slope.

The proposed Rose Creek Bike Path improvements would remove and replace the existing chain-link fence along the east and west sides of the path. Additionally, under the two bridges the existing pedestrian railings would be removed and replaced in conjunction with the path widening.

Segments of the Rose Creek Bike Path have vertical clearance issues. The proposed Rose Creek Bike Path design provides the minimum vertical clearance of 8 feet, between the bike path and the Garnet Avenue Bridge and Grand Avenue Bridge. The existing Rose Creek Bike Path would be lowered in order to provide the minimum vertical clearance between the existing bridge soffit and the proposed bike path. There are a few existing storm drain systems that outlet into Rose Creek within the limits of the existing Rose Creek Bike Path. These systems would need to be extended in order to accommodate a wider bike facility. Additionally, sewer and water facilities cross the bike path, and it is anticipated these facilities would not be affected by the proposed improvements. <u>The lowest point of Rose Creek Bike Path is under the bridges at elevations of 3 feet above mean sea level under Garnet and 1 foot above mean sea level under Grand Avenue</u>.

The existing path is located on property that is owned and maintained by the City of San Diego. However, there are two locations where the geometry of the existing path is insufficient to meet geometric standards, and a horizontal curve has been added (see Figure 3-21). Achieving City standards would result in movement of the existing fence into the City-owned ball fields by up to 20 feet. Right-of-way acquisition is required from two adjacent properties, owned by San Diego Mission Bay Boat & Ski Club and Mission Bay Golf Course.

Fiesta Island Causeway Path

The Fiesta Island Causeway includes separate trails for pedestrians and bicyclists. Section I includes 5-foot-wide bike lanes on either side of the roadway and an 8-foot-wide multi-use trail, all of which would have a 2% maximum cross-slope and would be asphalt concrete. Section J also includes a 5-foot-wide bike path and an 8-foot-wide pedestrian trail with a 2% cross-slope using PCC. Section K only includes a 5-foot bike path with a 2% maximum cross-slope using PCC.

The Fiesta Island Causeway improvements propose installing a pedestrian railing on the north side of the causeway between the walkway and the Bay (see Figure 3-22). The improvements also include a masonry retaining wall with a mounted pedestrian railing on the north side of the causeway. Additionally, a concrete barrier (i.e., K-railing) would be installed to separate the shared-use trail from the roadway.

Along the Fiesta Island Causeway, there is an existing 15-inch sewer and 10-inch water line within the roadway limits. It is anticipated that these existing utilities would not be affected by the improvements on the north side of the roadway. However, the design of the Fiesta Island Causeway component, as described above, incorporates the design of the bicycle and pedestrian path.

Ocean Beach Bike Path

The Ocean Beach Bike Path includes the removal and replacement of an approximately 1.06-mile section of the existing bike path pavement due to sub-standard widths (5 to 6 feet) and poor pavement conditions (see Figure 3-23). The path would have a 2% cross-slope and 14-foot width (10-foot traveled way, and two 2-foot and 4-foot shoulders) per Caltrans Highway Design Manual (HDM) 1003.1 (2020) and consistent with design recommendations outlined in the San Diego River Trail Enhancement Plan (San Diego River Trail Project).

There are various utilities that cross the Ocean Beach bike path. These include both storm drain and sewer systems. It is anticipated that these facilities would not be affected by the proposed improvements to the bike path. The Ocean Beach Bike Path improvements does not propose pedestrian railing or fencing.

Construction

The construction activities of each of the locations would be similar. All of the proposed component sites would reroute existing users during construction, as discussed below.

Rose Creek Bike Path

Due to the length of Rose Creek Bike Path, and the lack of convenient bicycle and pedestrian alternatives on the adjacent streets, the concept is proposed to be phased.

Phase 1 is the section from the Mike Gotch Memorial Bridge and Path to the Grand Avenue Bridge. A possible detour for path users is to travel west along the Mike Gotch Memorial Bridge and Path to the intersection of Pacific Beach Drive and Olney Street, then travel north on Olney Street (which has a sidewalk and no posted bicycle facilities) to Grand Avenue. The user would travel east on Grand Avenue (which has a Class II bike lane and sidewalks) to the signalized intersection at Figueroa Boulevard, and proceed west to the Grand Avenue Bridge, using the ramp to the Rose Creek Bike Path leading north.

Phase 2 is the section from the Grand Avenue Bridge to the Garnet Avenue Bridge. A possible detour for path users is to travel east on Grand Avenue (which has Class II bike lanes and sidewalks) to the intersection with Figueroa Boulevard. The user would then travel north on Figueroa Boulevard, west on Magnolia Avenue, and north on Bond Street, all of which have sidewalks, and no posted bicycle facilities to Garnet Avenue. The Rose Creek Bike Path is accessed via a ramp a short distance to the west.

Phase 3 is the section from the Garnet Avenue Bridge to the terminus at Mission Bay Drive. A possible detour for path users is to travel west on Garnet Avenue, north on Pico Street, east on Bluffside Avenue and south on Mission Bay Drive to the terminus of the Rose Creek Bike Path. All of these streets have sidewalks, except Mission Bay Drive. None of these streets have posted bicycle facilities.

Fiesta Island Causeway

The retaining wall would be the first item of construction and can be constructed outside of the existing bicycle, pedestrian, and vehicular travel ways. The new pavement section can be constructed in an accelerated fashion in approximately five days. During that time bicycle access to the island would be restricted at night and open during the day with the use of a flagger due to the limited paved width available.

Ocean Beach Bike Path

From the east end of the Ocean Beach Bike Path at Sunset Cliffs Boulevard pedestrians can travel the concrete sidewalk along the south side of Robb Field to the Gateway Connection at the intersection

of Sunset Cliffs Boulevard and West Point Loma Boulevard. This requires a short section of travel within a parking lot, which is not favorable, or on the dirt/grass adjacent to the parking lot. Pedestrians would then travel west along West Point Loma Boulevard until they reached the beach.

Equipment Needs

The construction activities at the three sites are anticipated to be similar and use similar equipment types/sizes. Excavation equipment anticipated to be used includes skid steer loaders and small track-type excavators. This type of equipment is commonly used for the removal of existing pavement and minor excavation for new storm drainpipes and other underground facilities, such as retaining wall footings. Larger loading and hauling equipment, such as rubber tire loaders and on-highway dump trucks, would be used for the import and export of material, for example, old pavement, excess dirt material, and new paving materials such as crushed aggregate base. Paving equipment, such as asphalt concrete paving machines, steel wheeled rollers, and on-highway dump trucks would bring asphalt concrete on-site for use as new pavement. Concrete transit mixers would be used to bring fresh concrete on site for curb ramps, curbs and gutters, sidewalks, retaining walls, stormwater facilities, and other similar infrastructure. Concrete pumps could also be used for areas inaccessible by the concrete transit mixers.

The suite of equipment needed to construct the four components is estimated to include the following:

- Rubber tired dozer (1)
- Tractor/loader/backhoe (1)
- Concrete/industrial saws (1)
- Skid steer loader (2)
- Excavator (2)
- Rubber-tire loader
- Paver (1)
- Paving equipment (1)
- Rollers (1)
- Cement and mortar mixers (1)
- Pump (1)
- Air compressor (1)

Operation and Maintenance

The operation of the bicycle and pedestrian paths would generally be limited to cleaning, clearing, and repairs as necessary.

3.3.5 RESTORATION OF THE SEAWALL BULKHEAD ELEMENT

Location

The Restoration of the Seawall Bulkhead Element is located along Mission Beach Boardwalk. Two segments of the existing seawall would be replaced. The first segment (A) starts at the intersection of Balboa Court and continues up to San Fernando Place The second segment (B) starts at the intersection of Ventura Place and continues up to Pacific Beach Drive. Improvements to existing beach access points at various locations along segments A and B would also be provided as either replacement stairways or ADA ramps, and one new vehicular access for City use would be created at Thomas Avenue. In addition, a new 375-foot-long segment (C) would be constructed from the north end of the existing seawall at Thomas Avenue toward Crystal Pier. See Figures 3-24 and 3-25 for the location of this element.

Description

The Restoration of the Seawall Bulkhead Element consists of replacement of approximately 9,780 linear feet of the existing seawall along Mission Beach Boardwalk, extension of the seawall by approximately 375 feet northwards to Crystal Pier, improve up to 14 existing beach access locations with stairways or ADA ramps, and potentially create one new (City) vehicular access to the beach at Thomas Avenue. The Preliminary Engineering Report Mission Beach Seawall Improvements Feasibility Study (Moffatt & Nichol, May 2024) provides detailed preliminary design and construction approach information (Appendix H). The term “restoration” in this case is derived from the City Charter Section 55.2, and is intended to refer to the replacement, and extension of portions of the existing historic resource, the Mission Beach Seawall, to continue to maintain and improve the seawall and its functions in general keeping with the existing and more recently restored segment(s). The word “restoration” in this case is not intended to be used as it is defined by the Secretary of Interior’s Standards for the Treatment of Historic Properties: Restoration as a Treatment and Standards for Restoration (NPS 2023).

Replacement Segments A and B

The 9,780 linear feet is broken up into two segments (Segments A and B) (see Figure 3-24). Segment A is approximately 8,760 feet long, sections of which were constructed in 1925, 1928, and 1986. The existing parapet height ranges from approximately 30 to 36 inches, which would be replaced, and the height increased to a new consistent parapet height of 42 inches (an increase of 6 to 12 inches). This additional height is necessary to provide required fall height protection and resilience from 6 to 12 inches of sea level rise.

Segment B is approximately 1,020 feet in length and was constructed in 2000 with a parapet height of 36 inches. As with Segment A, the parapet would be replaced to a new height of 42 inches, an increase of 6 inches. This additional height is necessary to provide required fall height protection and would provide resilience to 6 inches of SLR.

For both segments, the existing wall would be demolished to the top of the concrete pile cap. The new wall would be placed and connected to the existing pile cap through vertical reinforcing bars.

The wall segments would be formed with reveals to meet the architectural features required for historical preservation and would be color-matched with the previous improvements, as required by the historic preservation requirements in the San Diego Municipal Code. The modified replacement-in-kind design would tie in with the overall look of the Mission Beach Boardwalk. No work is required on the walkway for the parapet replacement, so only portions of the boardwalk would require fencing during construction. However, there are voids identified beneath the existing boardwalk that would be filled as part of this element by creating core holes in the sidewalk and inserting grout, necessitating partial sidewalk/boardwalk closures during construction activities.

New Segment C

A new segment (Segment C) would be constructed where the current k-rail separates the beach from the boardwalk from the end of Thomas Avenue, northwards approximately 375 feet to Grand Avenue/Crystal Pier (see Figure 3-25). The existing 13-foot-wide Segment C boardwalk is proposed to be widened by 5 feet to a total width of approximately 18 feet. At the north end of Segment C, the new wall would tie in at the front edge of the existing flatwork for the shower near the lifeguard station. The added width would provide congestion relief in this heavily trafficked pedestrian area. Consistent with the replacement segments (A and B), the new wall would have a parapet height of 42 inches (3 feet, 6 inches). The new wall would be supported on a spread footing or a deep pile foundation to improve existing conditions for safety.

In order for the new wall segment to remain stable, the City would have to maintain a minimum sand elevation, similar to a requirement of the 2015 Belmont Park project, which was used as guidance for this study. The City would likely need to continue constructing sand berms each winter season to maintain this sand level.

Access Improvements

Pedestrian beach access along Segments A and B is currently provided by “pop-out” stairways at 14 locations (see Figure 3-24). These existing stairways were constructed at different times with varied configurations along the boardwalk. Replacement of these stairs would be achieved with either new code-compliant stairs or an ADA access ramp.

Stairs

The existing sheet piles supporting the stairs are assumed to be concrete in Segment A and steel in Segment B and could remain in place to support the new stairs. The stairs would rise 2 feet before descending to match the existing configuration. At the end of the stairway, an "L"-shaped segment of new sheet pile wall with a concrete cap would be constructed to lengthen the stairway to meet code requirements. The proposed stairs would descend to approximately EL 7.00 (NGVD 29) to match the elevation of the bottom of the existing stairs.

ADA Ramps

The ADA-compliant pedestrian ramp (Figure 3-26) that would replace some of the existing beach access stairs at locations determined by the City would slope at 1:13 (7.69%) maximum and provide landings for every 30-inch rise per the City of San Diego 2021 Standard Drawing SDM-115. The ramp would also have a picket guardrail with a handrail for fall protection. The proposed ramp would rise 2 feet before descending to provide the same level of coastal protection currently provided.

The proposed bottom landing would be approximately 3 feet below the top of the boardwalk. This is assumed to be near the same elevation where the current stairs terminate and is the lowest the ramp can descend before requiring an additional landing.

New Vehicular Access

A 75-foot-long driveway is proposed at Thomas Avenue that would provide beach access for City equipment. The driveway would be 16 feet wide. The driveway would be constructed parallel to the existing boardwalk at the north end of Segment B. The driveway would descend to approximately elevation 1.0 (NGVD29). Because there is currently no shoreline protection provided, the driveway does not need to rise 2 feet before descending (as required for the pedestrian beach access locations).

Construction

Replacement (Segments A and B)

Phasing is included by the length of wall section based on the nature of the work required.

New Seawall (Segment C)

Construction of the new wall (Segment C) would require closing the boardwalk to provide the necessary clearance for wall footing excavation. The adjacent parking lot could be used as a temporary pedestrian traffic detour during construction (Figure 3-27 through 3-32). The duration of construction is estimated to be approximately 3 months.

Access Improvements

Each existing beach access location would be closed during the construction of replacement stairs; however, the boardwalk could remain partially open. The existing parapet along the stair pop-out would be demolished and reconstructed. The new stairs would tie into the boardwalk parapet, and thus the replacement of the boardwalk parapet must occur prior to reconstruction of the stairs. Construction duration is estimated at 2 weeks for each stairway.

To construct the ADA ramp, a new sheet pile wall and pile cap would be constructed to extend the existing pop-out to the necessary length for the ramp. The new sheet pile wall for the stairway would tie into the existing sheet pile wall. The existing stairs would be demolished and replaced by the ADA ramp. The parapet along the existing segment of the stair pop-out would be demolished and replaced. The new ramp would tie into the boardwalk parapet; as such, the replacement of the boardwalk parapet must occur prior to the construction of the ramp. Aesthetically, the parapet wall for the ramp would be designed consistent with the new parapet wall proposed for the boardwalk.

The new vehicular driveway would be supported by two new steel sheet pile walls with concrete caps, which would run parallel to the existing seawall. A structural concrete slab would span between the sheet piles. On the beach side, a parapet would be constructed to provide consistency with other segments of the seawall. On the boardwalk side, a new parapet would be constructed on top of the existing seawall as part of the Segment B work. The new parapet on the existing seawall (Segment B) would not tie in directly with the driveway, meaning the driveway could be constructed before or after the Segment B work is completed.

Operation and Maintenance

Upon completion of the Restoration of the Seawall Bulkhead Element, operation and maintenance activities would be minimal and consistent with the City's standard routine maintenance requirements.

3.3.6 DEFERRED MAINTENANCE UPDATE

Location

This element is Bay wide, focusing on existing City assets (facilities) of playgrounds, comfort stations, furnishings, and parking lots in need of repair and stormwater improvements.

Description

Various improvements to existing facilities throughout the Bay, including ADA access ramps repair; parking lot pavement, including stormwater improvements such as biofiltration options; benches repair/replacement; picnic table repair/replacement; lighting sustainability enhancements; fire pit and

hot coal disposal replacement; playground equipment repair/maintenance; and comfort station repair/replacement. Opportunities for improvements to stormwater quality treatment, such as biofiltration basins, is included as part of considerations for all suitable deferred maintenance activities. The Preliminary Engineering Report Deferred Maintenance (March 2024) provides an assessment of infrastructure and amenities and a recommended maintenance strategy for each identified (Appendix I). Please see the Implementation Framework, included as Appendix K to this EIR, for a detailed description of the implementation procedures that would be required for this element.

Construction

The type of equipment needed to construct any facilities associated with Deferred Maintenance activities would vary greatly dependent upon the type of asset being constructed. Many assets would be maintained by City staff using service trucks with standard tools to support activities such as replacement of barbecue grills, benches, bike racks, drinking fountains, fire pits, fitness stations, hot coal disposal, picnic tables, signage, and trash/recycling receptacles. These activities would not require the closure of any adjacent facilities. Painting would also be provided with service trucks and standard tools.

A variety of activities would require special equipment and specialized planning. For example, repair and or replacement of comfort stations, gazebos, lifeguard towers, lighting, storm drain structures, and parking lot pavement may be outside typical park maintenance activities. Required equipment may include elevated work platforms (bucket trucks or person lifts), roofing equipment, and excavation equipment for storm drains. Repaving of parking lots would require asphalt grinding machines, asphalt paving machines, rollers, and small loaders for moving materials. Planning for the temporary closure of facilities may be required. Engineering or architectural design may be necessary prior to initiating the maintenance activity.

Placement of water quality basins would require a variety of equipment to allow the excavation of basins, the placement of inlets and culverts, the forming of headwalls and other drainage structures, and the placement of concrete. Trucks would be required for the import of aggregate and large rocks to fill the basin and to export dirt from the site. For work that requires larger excavations (e.g. water quality basins), the design team would coordinate with utility owners early in the design phase to verify utility locations and coordinate for relocation if necessary.

Other activities would require the use of light duty cranes or mechanical equipment, for example the placement of picnic tables and playground equipment.

Operation and Maintenance

Once completed, repaired and/or replaced facilities would continue to be used, cleaned, and maintained and repaired consistent with the City's Standard Routine Maintenance requirements. The

maintenance team would notify Underground Service Alert (USA) so that utilities are accurately marked in the field prior to initiating maintenance activities that requires minor digging.

3.3.7 SIGNAGE UPDATE ELEMENT

Location

This element is Bay wide, and specific locations for updated signs have not yet been determined (but see Figure 3-33, Signage Parks Within a Park). Locations would be determined by considering replacement of existing signs and the correct scaling and signage type for the intended purpose (e.g., pedestrian/cycling wayfinding, versus gateway monuments for all user types including vehicular, and information signs to educate visitors of the resources relevant to a specific location).

Description

Although generally exempt from CEQA under CEQA Guidelines Section 15301, Section 15302, Section 15303, and/or Section 15304 as a replacement of existing signages, this element is disclosed herein as part of the Program. The signage update includes an update to the design of wayfinding and information signs as well as updated locations for placement of new signs for better visibility and provision of information. The Signage & Wayfinding; Analysis, Assessment, and Recommendations, Dudek, June 2025, provides detailed preliminary design and construction approach information (Appendix J).

Construction

Construction would require equipment to remove existing signs and install new signs, such as a pick-up truck, dozer, hand tools, and/or crane.

Operation and Maintenance

The design of updated signage has been undertaken in coordination with the Parks and Recreation Department facilities staff to promote the use of materials that can withstand the coastal environment with minimal maintenance. Once installed the signs would be maintained and repaired consistent with the City's standard routine maintenance requirements.

3.4 PROJECT IMPLEMENTATION

The Implementation Framework has been prepared to provide a structured outline for future implementation of each element and component proposed under the Program and this EIR. The Draft Implementation Framework was circulated for public review from July 22, 2025, to September 10, 2025. The Implementation Framework, included in the EIR as Appendix K, provides a detailed description of the

Program's relationship to other City of San Diego initiatives and planning documents related to Mission Bay Park, provides a description of each Program element, and provides step-by-step implementation procedures that would be undertaken as each individual component or improvement was funded and initiated. The Implementation Framework also outlines all Environmental Protocols (EP) that would be applicable to the elements of the Program during implementation.

Timing

Upon commencement of individual component implementation, construction would be subject to the version of the City's "WHITEBOOK" current at the time of construction (e.g., City of San Diego 2021a). Additionally, construction would be scheduled to avoid the nesting bird season (typically considered February 15 through September 15). The City of San Diego may also impose a Beach Area Construction Restriction, which limits non-emergency construction work during the summer period (Memorial Day to Labor Day) in beach areas. Activities such as weed eradication, fencing, grading and revegetation would ideally be implemented during the fall and winter months to take advantage of seasonal rainfall, as well as to avoid work disturbance during the migratory bird nesting period. However, revegetation activities could be implemented during dry months.

3.5 HISTORY OF PROJECT CHANGES

As part of City review, initial environmental concerns were raised and addressed through design changes or through specific Environmental Protocols (EPs) applied in the Implementation Framework.

During review the Rose Creek as part of the Wetlands and Water Quality Improvements Element Preliminary Engineering Report were removed as it was determined to be already pursued under a separate action (De Anza Natural) and separate CEQA process than this Program; thus, this improvement was removed from the Program's project description.

During review of the Bicycle and Pedestrian Improvements Element, it was determined the improvements identified in the Preliminary Engineering Report as the Robb Field/Gateway Connectivity Path were already being pursued under a separate action and separate CEQA process than this Program; thus, this improvement was removed from the Program's project description.

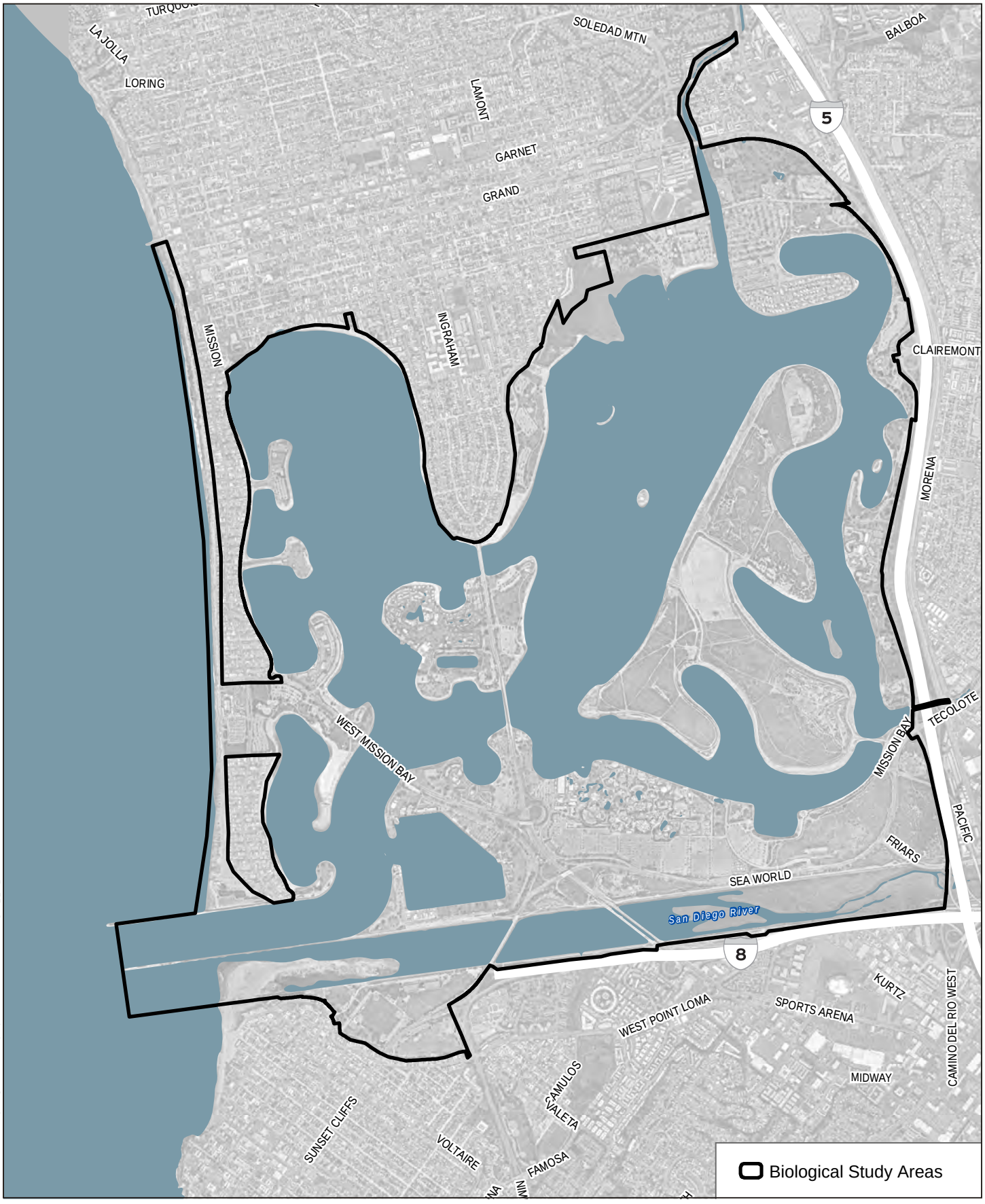
During review of the Restoration of Shorelines Element, several locations were raised by community member and investigated including Ski Beach and within Enchanted Bay. However, the Preliminary Engineering Report identifies the locations in greatest need and other areas where restoration would be needed in the future. The Preliminary Engineering Report does not eliminate the potential for other areas' need or ability for the City to conduct necessary repairs, rather prioritized locations. Thus, no specific locations were added to the Program's project description.

During review of the Program, it was determined Program-wide EPs would be established in the Implementation Framework to outline the existing regulatory requirements that would be applicable to each element and that would be complied with upon implementation of each component or element of the Program. As mentioned above, the EPs are presented in the Implementation Framework.

3.6 PROJECT APPROVALS AND DISCRETIONARY ACTIONS

The approvals for the Program inclusive of all elements include, but may not be limited to the following:

- City Resolution approving Mission Bay Park Improvements Program Implementation Framework
- Site Development Permit(s), City of San Diego
- Coastal Development Permit(s), California Coastal Commission, City of San Diego
- Clean Water Act Permit(s); Section 404, 33USC Section 1344, U.S. Army Corps of Engineers
- Rivers and Harbors Section 10 Permit(s), Section 10, 33 USC Section 403, U.S. Army Corps of Engineers
- Issue Record of Decision, U.S. Army Corps of Engineers
- Magnuson-Stevens Fishery Conservation and Management Act, as amended 1996 (Public Law 104-267)
- National Historic Preservation Act of 1966 (NHPA), Section 106 Consultation with SHPO/THPO, State Historic Preservation Officer/Tribal Historic Preservation Office
- Endangered Species Act, 16 USC Sections 1531-1544 Section 7 Consultation with the federal lead agency
- Streambed Alteration Agreement, Section 1602 of the California Fish and Game Code, California Department of Fish and Wildlife
- California Endangered Species Act Section 2081 Incidental Take Permit, California Department of Fish and Wildlife (CDFW)
- Water Quality Certification under Section 401 of the Clean Water Act, Regional Water Quality Control Board (RWQCB)
- Authority to Construct/Permit to Operate for any dredge, San Diego Air Pollution Control District (APCD)
- Dewatering Permit(s), City of San Diego



SOURCE: SANGIS 2023

N

0 900 1,800 Feet

FIGURE 3-1

Mission Bay Park Improvement Zone

Mission Bay Park Improvements Program EIR

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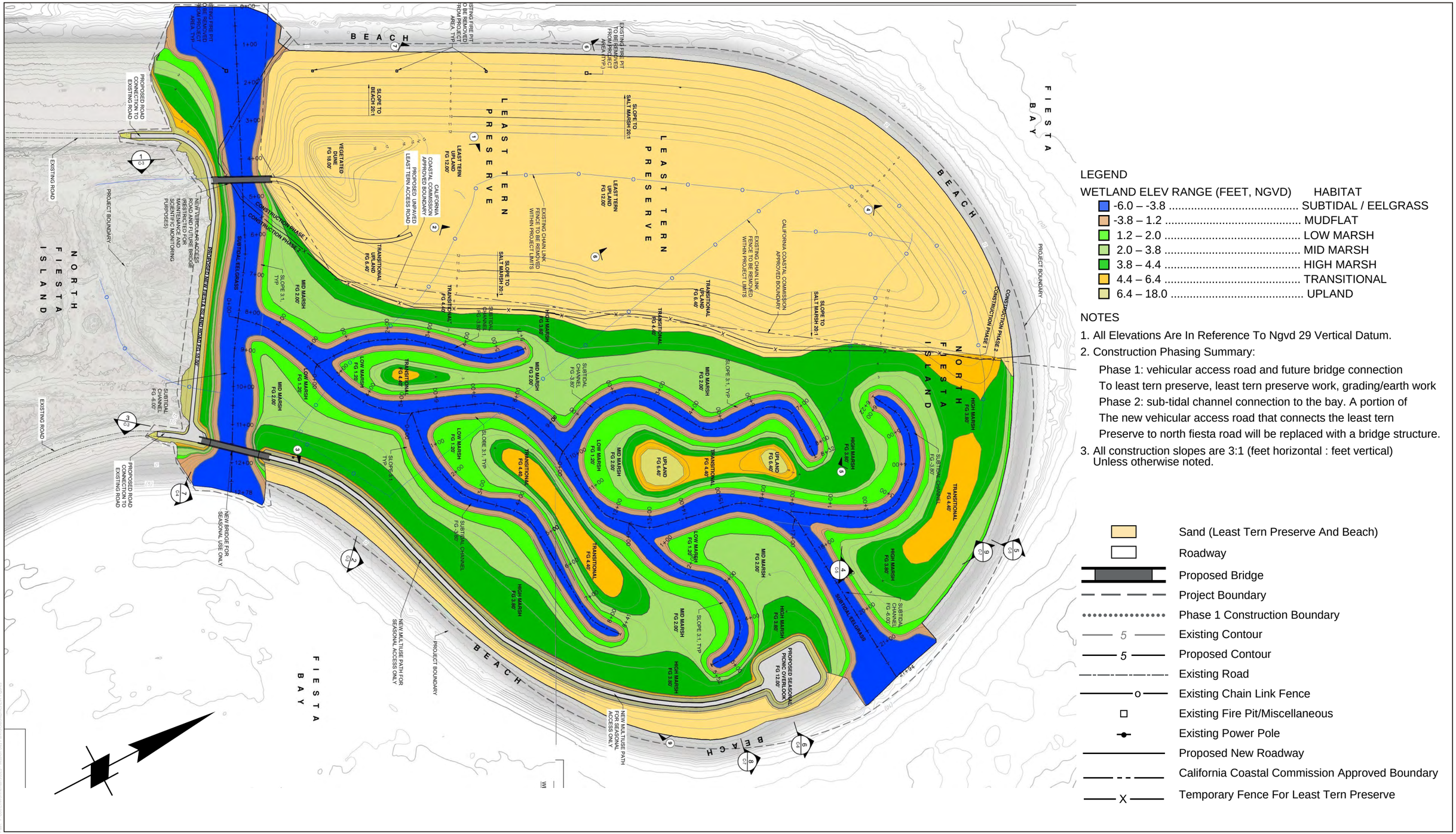

SOURCE: SANGIS 2023

0 275 550 Feet

FIGURE 3-2

Wetland and Water Quality Improvement Element - a) North Fiesta Island

Mission Bay Park Improvements Program EIR

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SOURCE: Moffatt & Nichol. 2021. Preliminary Engineering Report Tecolote Creek Wetland Restoration & Fiesta Island Causeway

FIGURE 3-3

Wetland and Water Quality Improvement Element - b) Tecolote Creek and Fiesta Island Causeway

Mission Bay Park Improvements Program EIR

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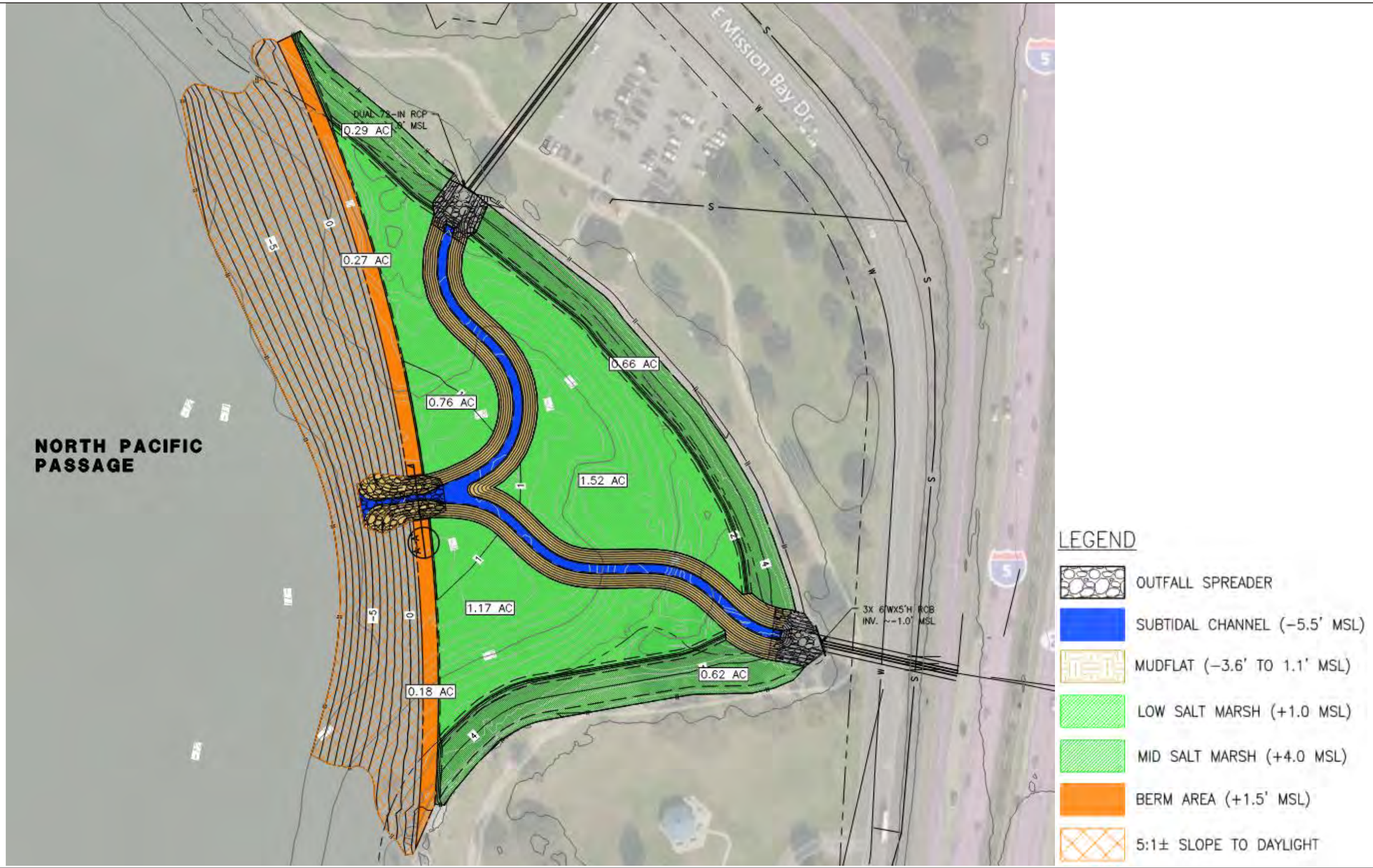

SOURCE: RICK Engineering. 2024. Preliminary Engineering Report Cudahy Creek (Leisure Lagoon) Wetland Restoration

FIGURE 3-4

Wetland and Water Quality Improvement Element - c) Cudahy Creek

Mission Bay Park Improvements Program EIR

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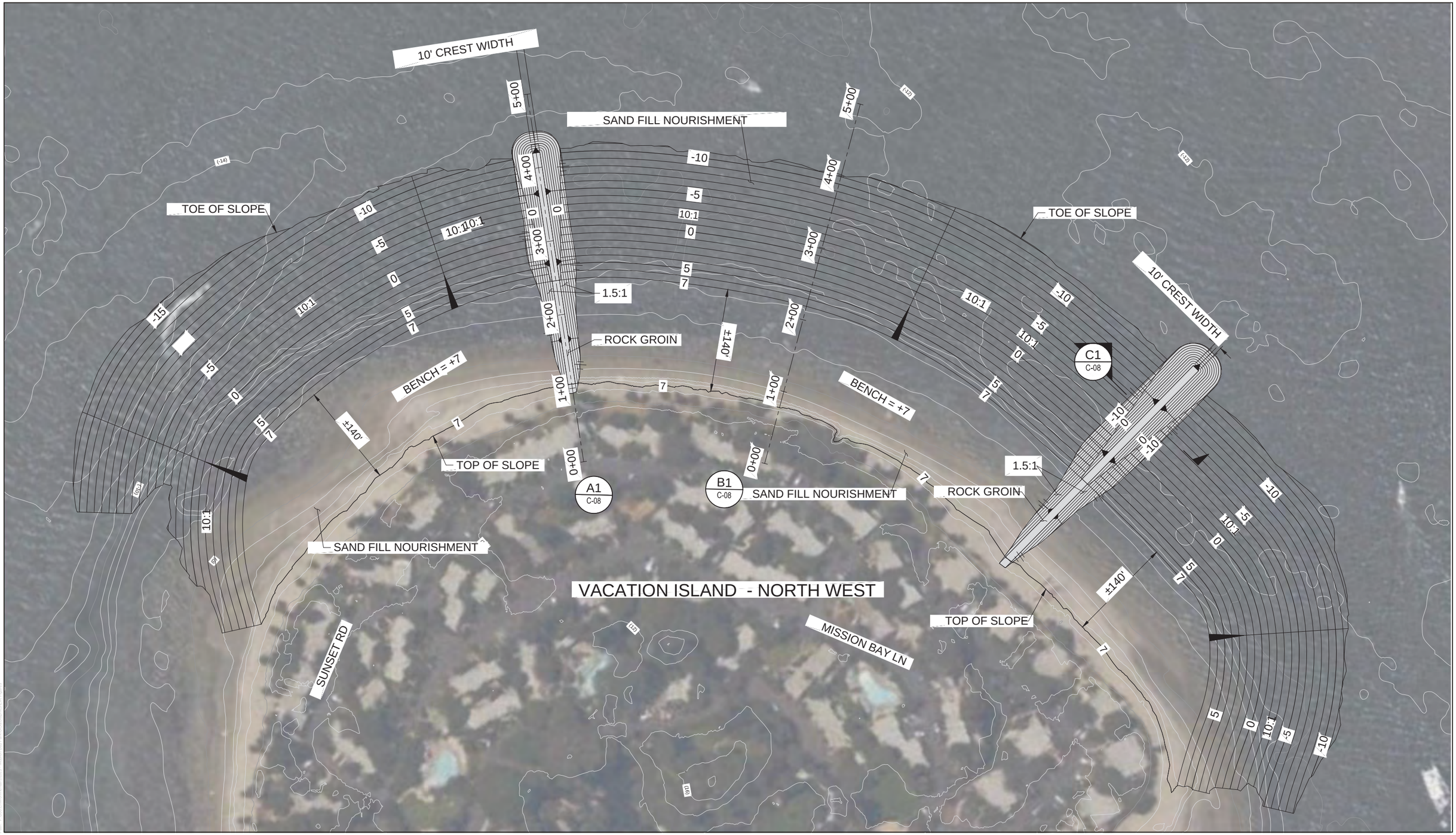

SOURCE: Preliminary Engineering Report - Restoration of Shoreline - March 31, 2021

FIGURE 3-5

Restoration of Shoreline Element - a) Vacation Island NW

Mission Bay Park Improvements Program EIR

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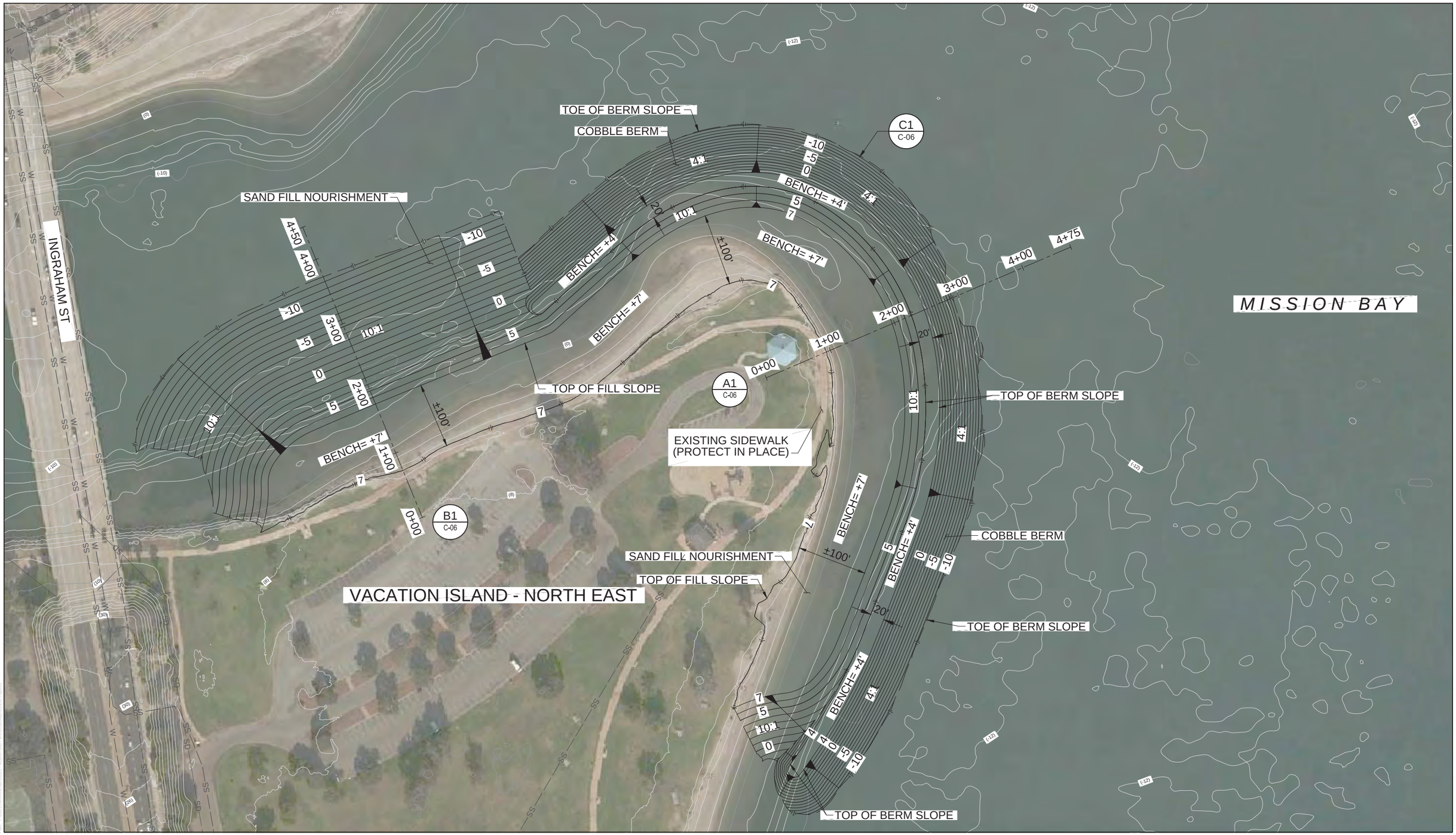

SOURCE: Preliminary Engineering Report - Restoration of Shoreline - March 31, 2021

FIGURE 3-6

Restoration of Shoreline Element - b) Vacation Island NE

Mission Bay Park Improvements Program EIR

DUDEK

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SOURCE: Preliminary Engineering Report - Restoration of Shoreline - March 31, 2021

FIGURE 3-7

Restoration of Shoreline Element - c) Vacation Island SW

Mission Bay Park Improvements Program EIR

DUDEK

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SOURCE: Preliminary Engineering Report - Restoration of Shoreline - March 31, 2021

FIGURE 3-8

Restoration of Shoreline Element - d) Ventura Cove

Mission Bay Park Improvements Program EIR

DUDEK

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SOURCE: Preliminary Engineering Report - Restoration of Shoreline - March 31, 2021

FIGURE 3-9

Restoration of Shoreline Element e) Crown Point

Mission Bay Park Improvements Program EIR

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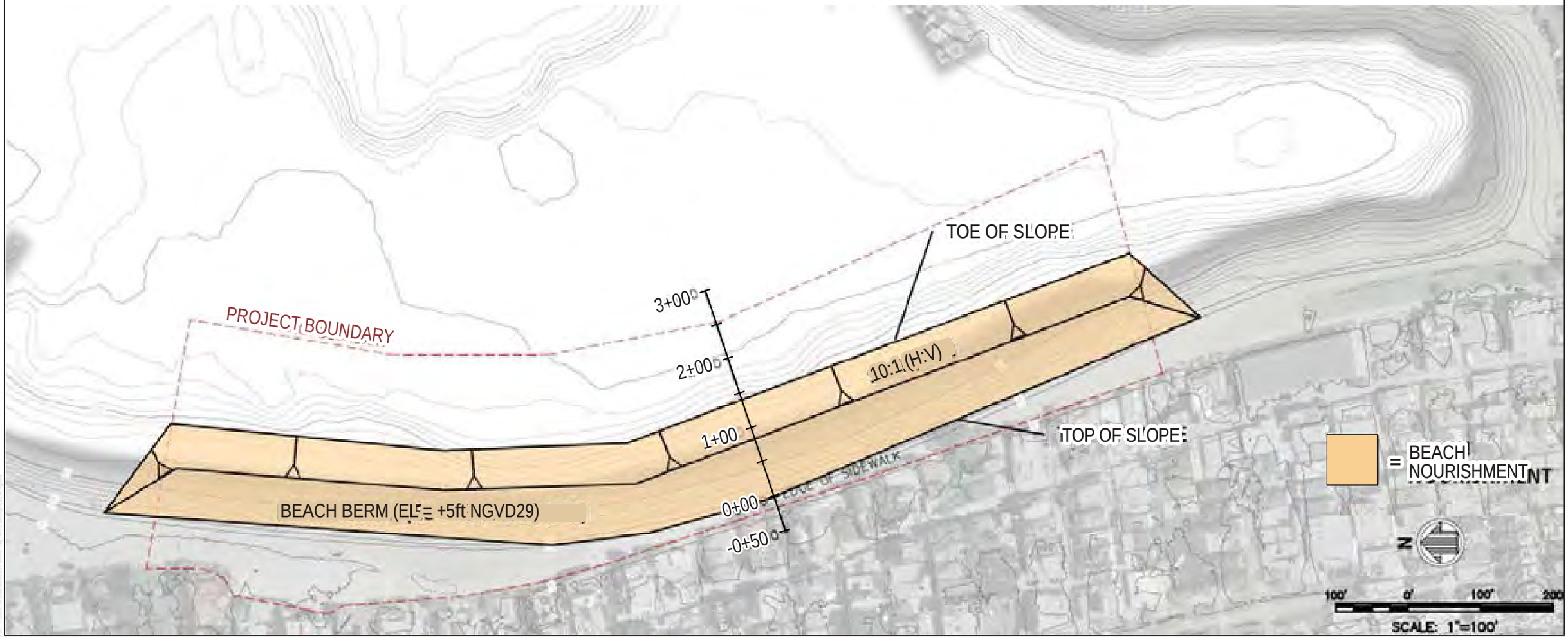

SOURCE: Moffatt & Nichol. 2021. Preliminary Engineering Report Mission Bay PEIR Restoration of Shoreline.

FIGURE 3-10

Restoration of Shoreline Element - f) West Sail Bay

Mission Bay Park Improvements Program EIR

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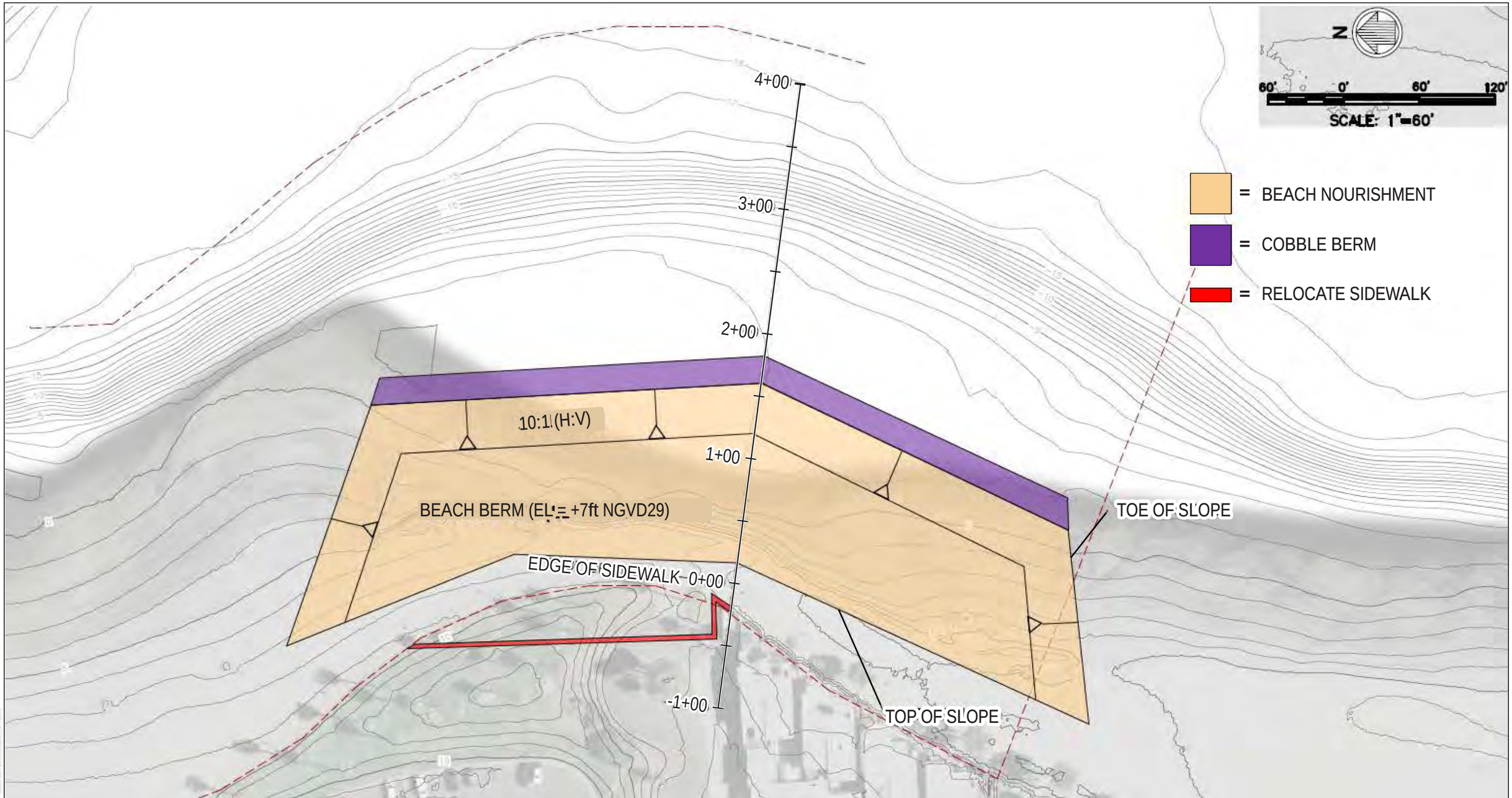

SOURCE: Moffatt & Nichol. 2021. Preliminary Engineering Report Mission Bay PEIR Restoration of Shoreline.

FIGURE 3-11

Restoration of Shoreline Element - g) Bonita Cove

Mission Bay Park Improvements Program EIR

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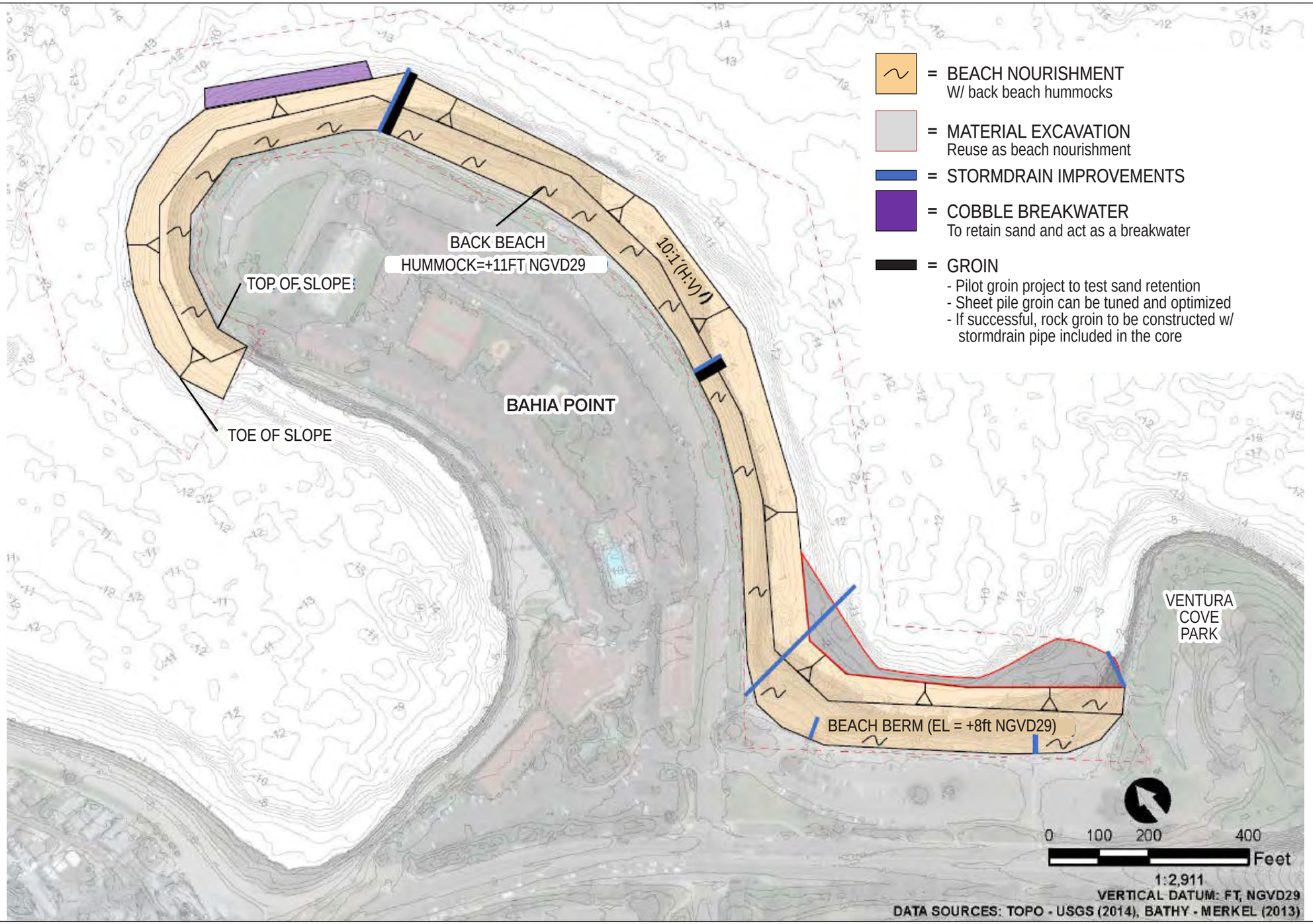

SOURCE: Moffatt & Nichol. 2021. Preliminary Engineering Report Mission Bay PEIR Restoration of Shoreline.

FIGURE 3-12

Restoration of Shoreline Element - h) Bahia Point

Mission Bay Park Improvements Program EIR

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SOURCE: ESRI 2024; City of San Diego 2018

DUDEK

0 425 850 Feet

FIGURE 3-13

Habitat Expansion/Restoration Opportunities Site Reference Map

Mission Bay Park Improvements Program EIR

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Mission Bay Park Improvement Zone

Soil Sample Location

Informal Trails

Haul Route

Limits of Original Proposed Upland Habitat Expansion Preserve Areas (as identified in the Fiesta Island Concept Plan) (Expanded Habitat)

Existing Sand Replenishment Maintenance Area

Adjusted Expansion Area Restoration Treatments

Coastal Sage Scrub Restoration and Enhancement

Coastal Salt Marsh Enhancement

Coastal Strand Berm Revegetation

Potential Nuttall's acmispon Expansion Area

Vegetation Communities/Land Cover

BCH, Beach

DCSS, Diegan Coastal Sage Scrub

DEV, Urban/Developed

DH, Disturbed Habitat

OW, Open Water

SB, Shallow Bay

Special-status Plants

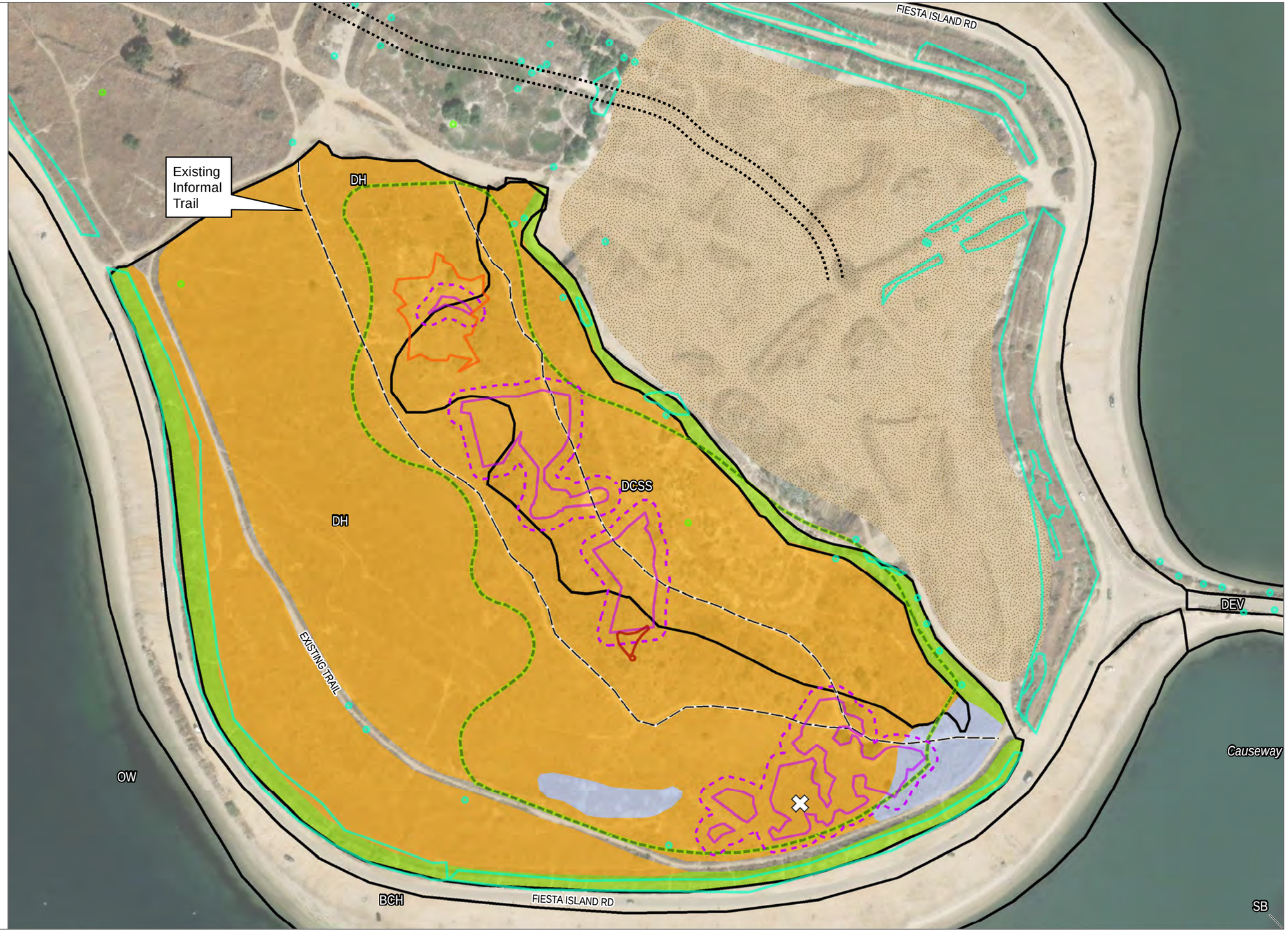
Lewis' evening-primrose

Robinson's pepper-grass

Coast woolly-heads

Woolly seablite

Nuttall's acmispon



SOURCE: ESRI 2024; City of San Diego 2018

DUDEK

0 100 200 Feet

FIGURE 3-14

Upland Habitat and Preserves Expansion Element - a) Fiesta Island Site No.1 South

Mission Bay Park Improvements Program EIR

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- Mission Bay Park Improvement Zone
- North Fiesta Island Wetland Restoration Project
- Soil Sample Location
- Informal Trails
- Stockpile Area
- Haul Route
- Toe of Berm
- Limits of Original Proposed Upland Habitat Expansion Preserve Areas (as identified in the Fiesta Island Concept Plan) (Expanded Habitat)
- Road

Adjusted Expansion Area Restoration Treatments

- Site No.2 Boundary
- Coastal Sage Scrub Restoration and Enhancement
- Non-Tidal Coastal Salt Marsh Enhancement and Revegetation
- Coastal Salt Marsh/Wetland Revegetation and Enhancement
- Sand Import/Coastal Strand Revegetation and Least Tern Enhancement
- Southern Foredune Restoration and Enhancement
- Vegetation Communities/Land Cover
  - BCH, Beach
  - DCSS, Diegan Coastal Sage Scrub
  - DH, Disturbed Habitat
  - OW, Open Water
  - SF, Southern Foredunes
  - dSCSM, Disturbed Southern Coastal Salt Marsh

Special-status Plants

- Lewis' evening-primrose
- San Diego Viguiera
- Coast woolly-heads
- Decumbent goldenbush
- Red sand-verbena
- Woolly seablite
- Nuttall's acmispon

SOURCE: ESRI 2024; City of San Diego 2018

DUDEK

0 112.5 225 Feet

FIGURE 3-15

Upland Habitat and Preserve Expansion Element - Fiesta Island Site No.4 2 North Central

Mission Bay Park Improvements Program EIR

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- Mission Bay Park Improvement Zone
- Soil Sample Location
- Stockpile Area
- Haul Route
- Limits of Original Proposed Upland Habitat Expansion Preserve Areas (as identified in the Fiesta Island Concept Plan) (Expanded Habitat)

Adjusted Expansion Area Restoration Treatments

- Site No.3 Boundary
- Coastal Sage Scrub Restoration and Enhancement
- Non-Tidal Coastal Salt Marsh Enhancement and Revegetation
- Sand Import/Coastal Strand Revegetation and Least Tern Enhancement
- Vegetation Communities/Land Cover
  - BCH, Beach
  - DCSS, Diegan Coastal Sage Scrub
  - DEV, Urban/Developed
  - DH, Disturbed Habitat
  - OW, Open Water
  - SF, Southern Foredunes

Special-status Plants

- Lewis' evening-primrose
- Coast woolly-heads
- Red sand-verbena
- Woolly seablite

SOURCE: ESRI 2024; City of San Diego 2018

DUDEK 0 80 160 Feet

FIGURE 3-16

Upland Habitat and Preserve Expansion Element - Fiesta Island Near Youth Camping Site No. 3

Mission Bay Park Improvements Program EIR

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- Mission Bay Park Improvement Zone
- North Fiesta Island Wetland Restoration Project
- Soil Sample Location
- CCC Approved Boundary
- Least Tern Nesting Habitat
- Vegetated Dune Feature
- Low Marsh
- Mid Marsh
- High Marsh
- Vegetation Communities/Land Cover
  - BCH, Beach
  - DH, Disturbed Habitat
  - OW, Open Water
  - dSCSM, Disturbed Southern Coastal Salt Marsh

Special-status Plants

- Lewis' evening-primrose
- Woolly seablite

SOURCE: ESRI 2024; City of San Diego 2018

DUDEK

0 90 180 Feet

FIGURE 3-17

Upland Habitat and Preserve Expansion Element - Fiesta Island Least Tern Preserve Site No. 4

Mission Bay Park Improvements Program EIR

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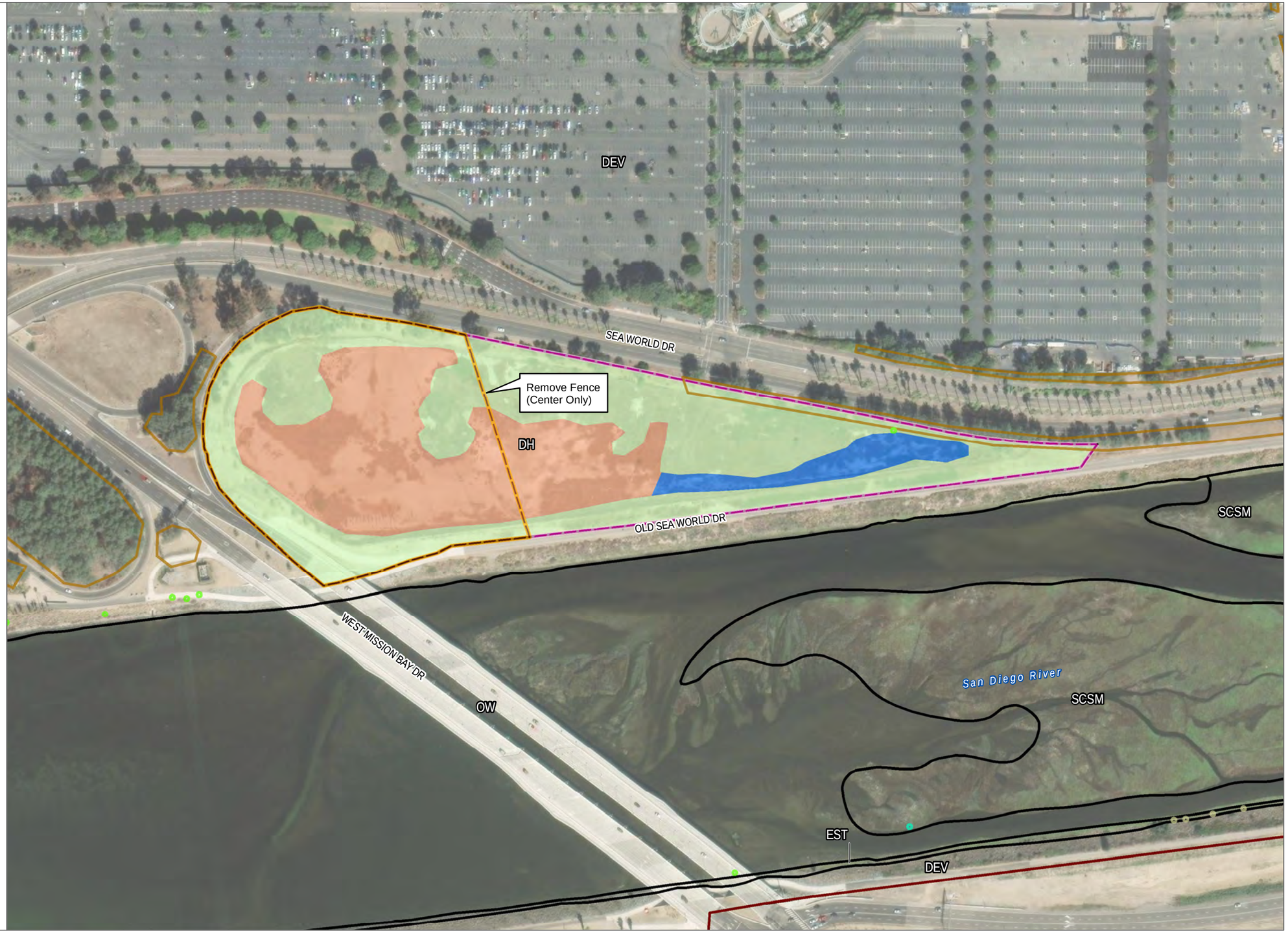
- Mission Bay Park Improvement Zone
- Existing Least Tern Preserve (To Be Modified)
- Previous Salt Marsh Mitigation Area (Modification and Enhancement)

Adjusted Expansion Area Restoration Treatments

- Non-Tidal Coastal Salt Marsh Enhancement and Revegetation
- Coastal Strand Revegetation and Enhancement
- Sand Import and Coastal Strand Enhancement Revegetation (Least Tern Nesting Improvement)
- Vegetation Communities/Land Cover
  - DEV, Urban/Developed
  - DH, Disturbed Habitat
  - EST, Intertidal Estuary
  - OW, Open Water
  - SCSM, Southern Coastal Salt Marsh

Special-status Plants

- Lewis' evening-primrose
- Torrey pine
- Southwestern spiny rush
- Woolly seablite



SOURCE: ESRI 2024; City of San Diego 2018

DUDEK

0 120 240 Feet

FIGURE 3-18

Upland Habitat and Preserve Expansion Element - Cloverleaf Enhancement Area-Site No. 5a

Mission Bay Park Improvements Program EIR

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Mission Bay Park Improvement Zone

Limits of Original Proposed Upland Habitat Expansion Preserve Areas (as identified in the Fiesta Island Concept Plan) (Expanded Habitat)

San Diego Audubon Society Revegetation Area (San Diego River/Sea World Dr. Site #3a)

Adjusted Expansion Area Restoration Treatments

Site No. 5b

Coastal Sage Scrub Restoration and Enhancement

Sand Import/Coastal Strand Revegetation and Least Tern Enhancement

Potential Nuttall's acmispon Expansion Area

Vegetation Communities/Land Cover

CBM, Coastal Brackish Marsh

DCSS, Diegan Coastal Sage Scrub

DEV, Urban/Developed

DH, Disturbed Habitat

OW, Open Water

SCSM, Southern Coastal Salt Marsh

dDCSS, Disturbed Diegan Coastal Sage Scrub

Special-status Plants

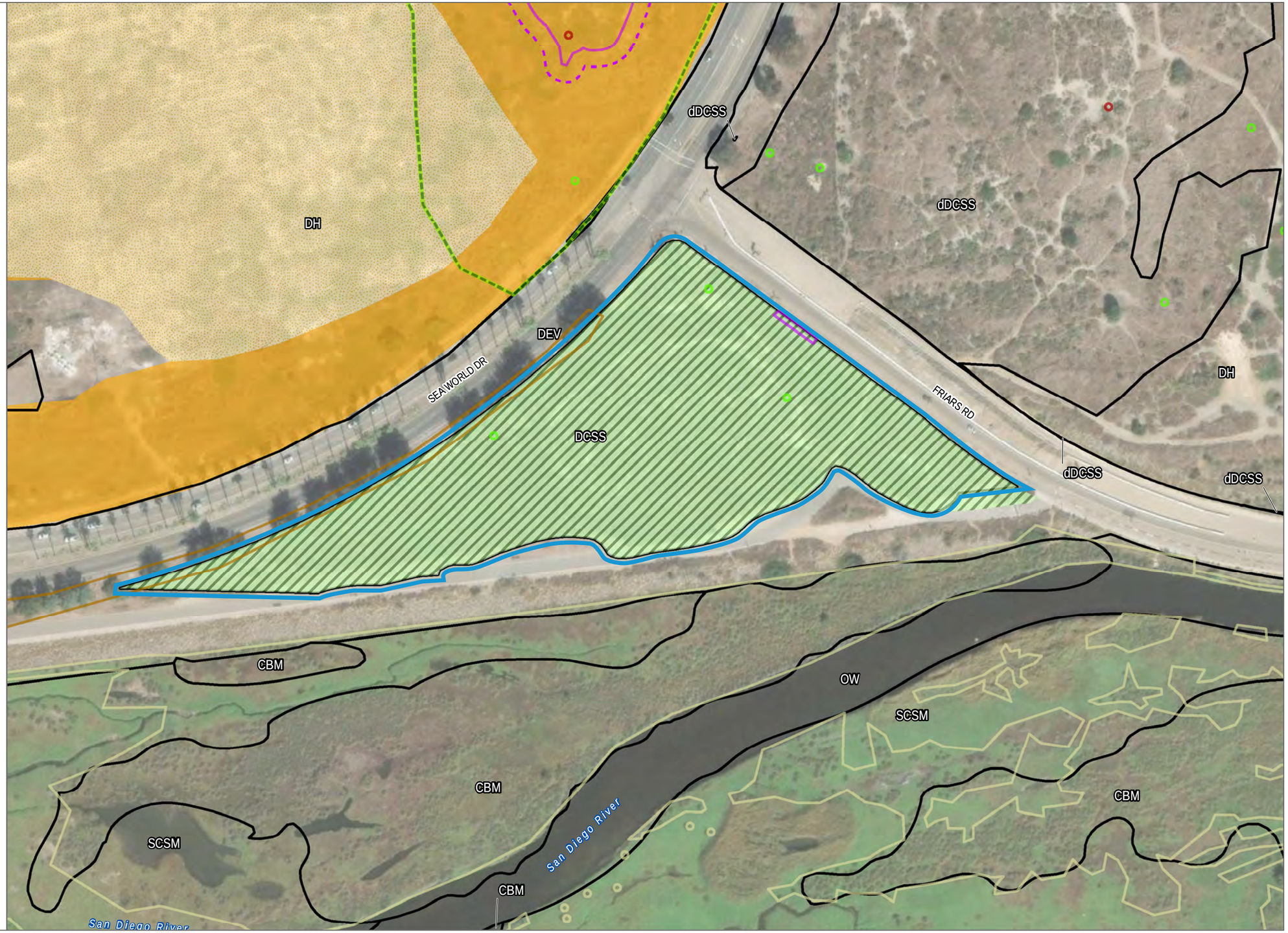
Lewis' evening-primrose

Torrey pine

Coast woolly-heads

Southwestern spiny rush

Nuttall's acmispon



SOURCE: ESRI 2024; City of San Diego 2018

DUDEK 0 75 150 Feet

FIGURE 3-19

Upland Habitat and Preserve Expansion Element - Triangle Enhancement Area-Site No. 5b

Mission Bay Park Improvements Program EIR

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- Mission Bay Park Improvement Zone
- Soil Sample Location
- Grading Contours
- Informal Trails
- Limits of Original Proposed Upland Habitat Expansion Preserve Areas (as identified in the Fiesta Island Concept Plan) (Expanded Habitat)
- San Diego Audubon Society Revegetation Area (San Diego River/Sea World Dr. Site #3a)

Adjusted Expansion Area Restoration Treatments

- Site No. 5c
- Coastal Sage Scrub Restoration and Enhancement
- Coastal Salt Marsh Enhancement
- Coastal Strand Berm Revegetation
- Sand Import/Coastal Strand Revegetation and Least Tern Enhancement
- Southern Foredune Restoration and Enhancement
- Potential Nuttall's acmispon Expansion Area
- Potential Nuttall's acmispon Expansion Area
- Vegetation Communities/Land Cover
  - BCH, Beach
  - CBM, Coastal Brackish Marsh
  - DCSS, Diegan Coastal Sage Scrub
  - DEV, Urban/Developed
  - DH (Rip-Rap), Disturbed Habitat
  - DH, Disturbed Habitat
  - OW, Open Water
  - SB, Shallow Bay
  - SCSM, Southern Coastal Salt Marsh
  - dDCSS, Disturbed Diegan Coastal Sage Scrub

Special-status Plants

- Lewis' evening-primrose
- Torrey pine
- Coast woolly-heads
- Southwestern spiny rush
- Woolly seablite
- Nuttall's acmispon

SOURCE: ESRI 2024; City of San Diego 2018

DUDEK

0 125 250 Feet

FIGURE 3-20

Upland Habitat and Preserve Expansion Element - South Shores East Restoration Area Site No. 5c

Mission Bay Park Improvements Program EIR

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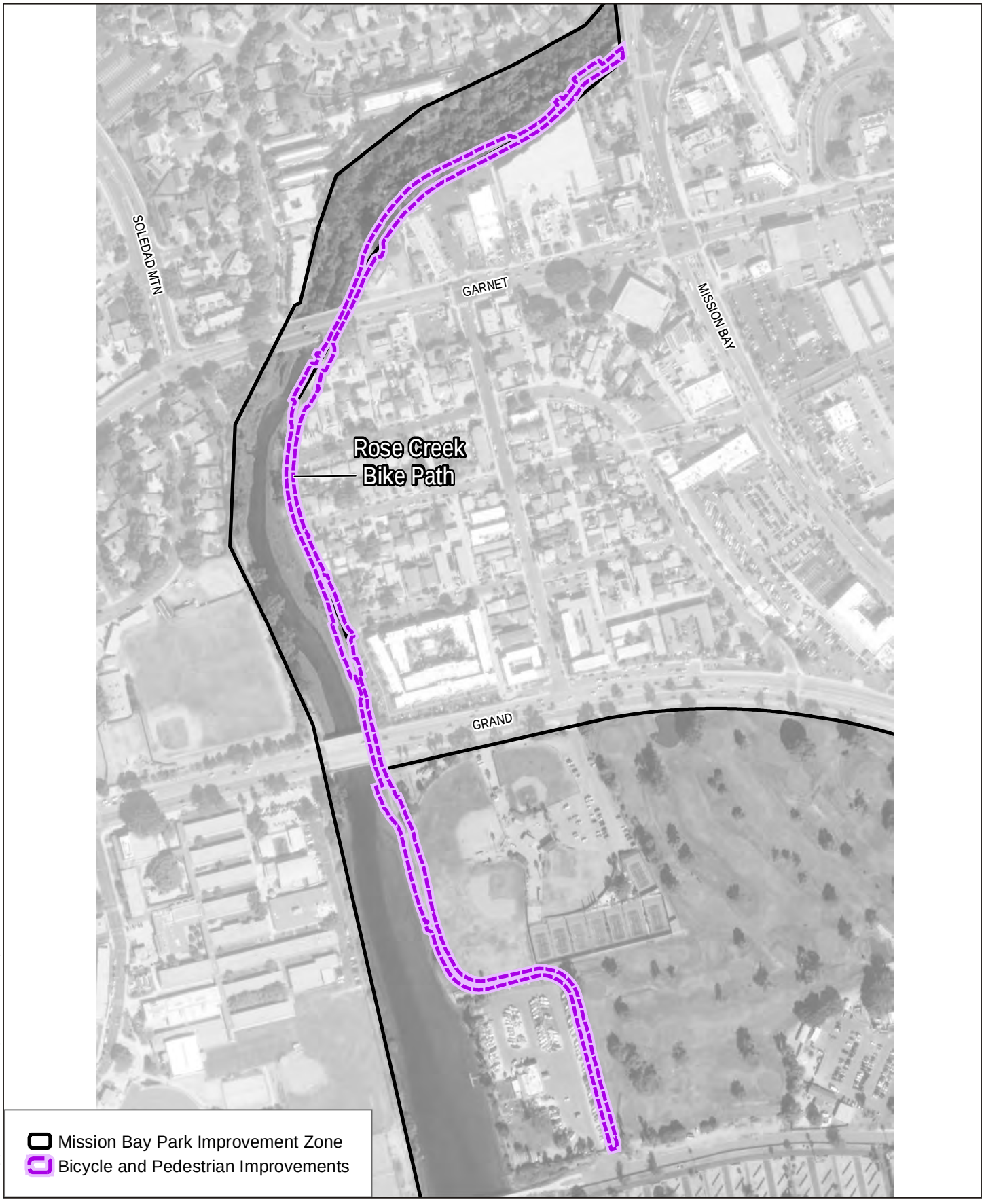

SOURCE: SANGIS 2023

FIGURE 3-21

Bicycle and Pedestrian Improvements Element - Rose Creek Path

Mission Bay Park Improvements Program EIR

N

0 115 230
Feet

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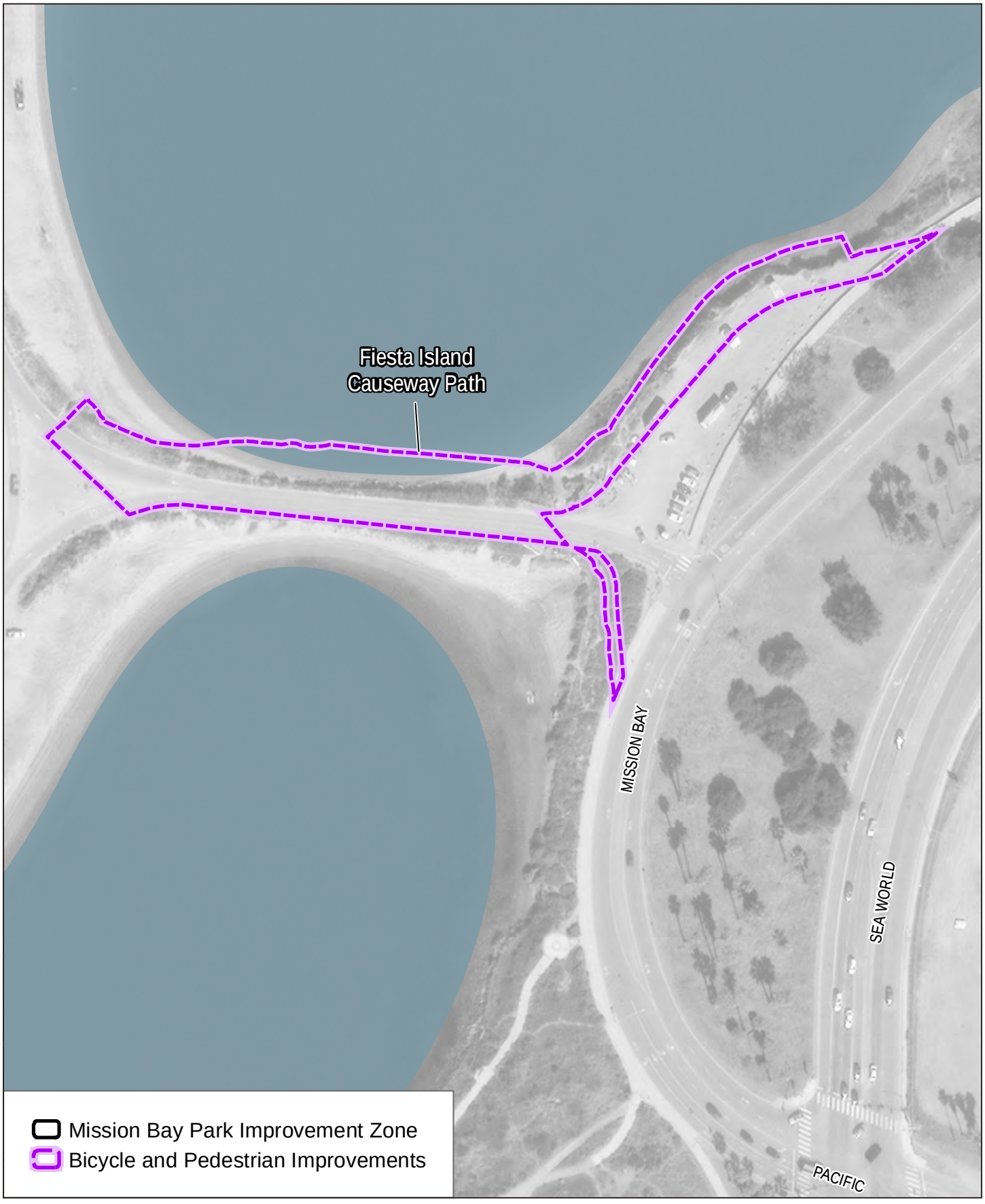

SOURCE: SANGIS 2023

N

0 45 90
Feet

FIGURE 3-22

Bicycle and Pedestrian Improvements Element - Fiesta Island Causeway Path

Mission Bay Park Improvements Program EIR

INTENTIONALLY LEFT BLANK

SOURCE: SANGIS 2023

FIGURE 3-23

Bicycle and Pedestrian Improvements Element - Ocean Beach Bike Path

Mission Bay Park Improvements Program EIR

N

0 275 550

Feet

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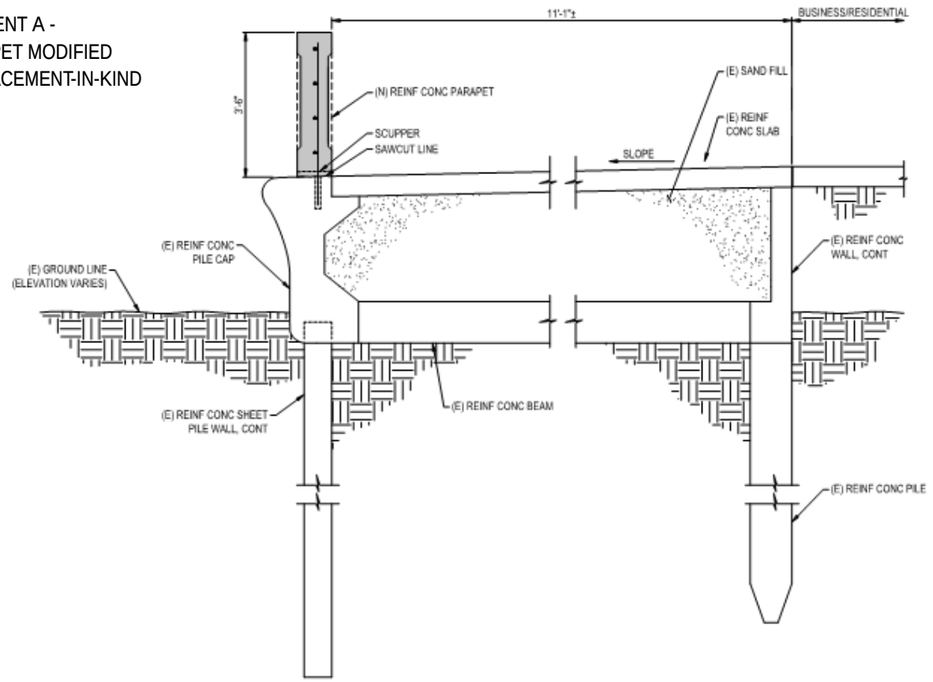
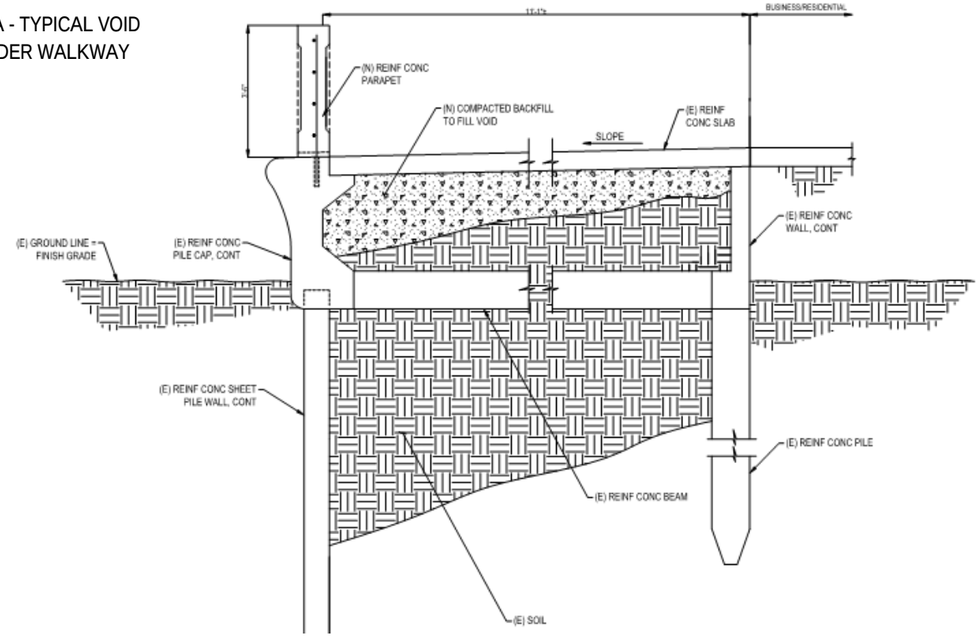
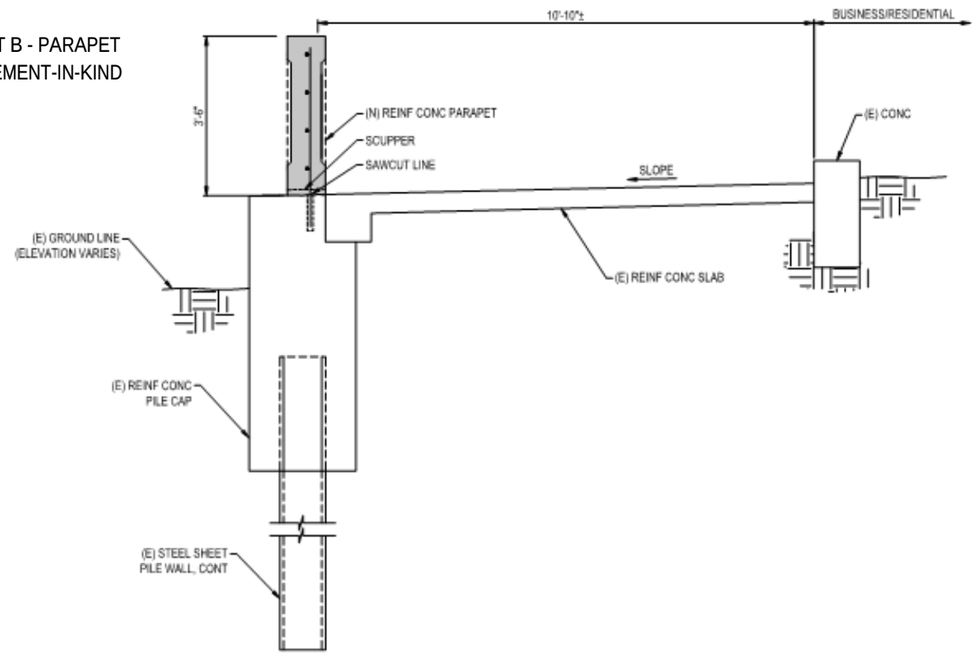
SEGMENT A -
PARAPET MODIFIED
REPLACEMENT-IN-KIND



SEGMENT A - TYPICAL VOID
REPAIR UNDER WALKWAY



SEGMENT B - PARAPET
REPLACEMENT-IN-KIND



SOURCE: Moffatt & Nichol 2024 Preliminary Engineering Report Mission Bay Park Improvement PEIR Mission Beach Seawall Improvements Feasibility Study

FIGURE 3-24

Restoration of Seawall Bulkhead Element - Replacement Segments A and B

Mission Bay Park Improvements Program EIR

DUDEK

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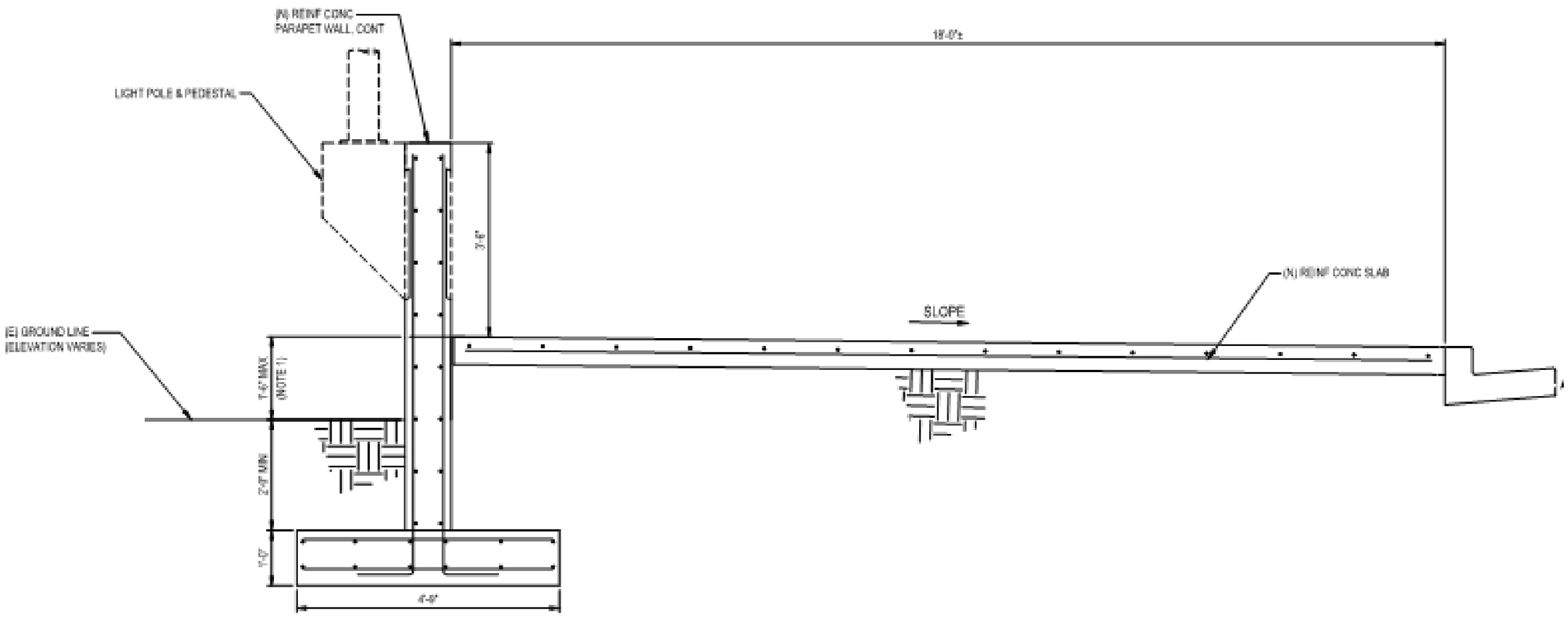

SOURCE: Moffatt & Nichol 2024 Preliminary Engineering Report Mission Bay Park Improvement PEIR Mission Beach Seawall Improvemen

FIGURE 3-25

Restoration of Seawall Bulkhead Element - New Segment C

Mission Bay Park Improvements Program EIR

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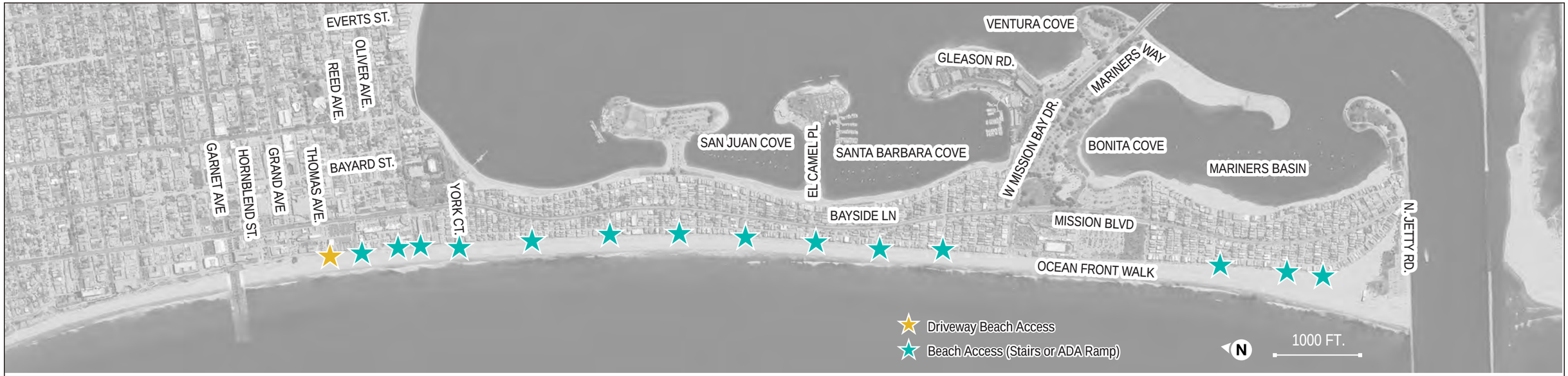
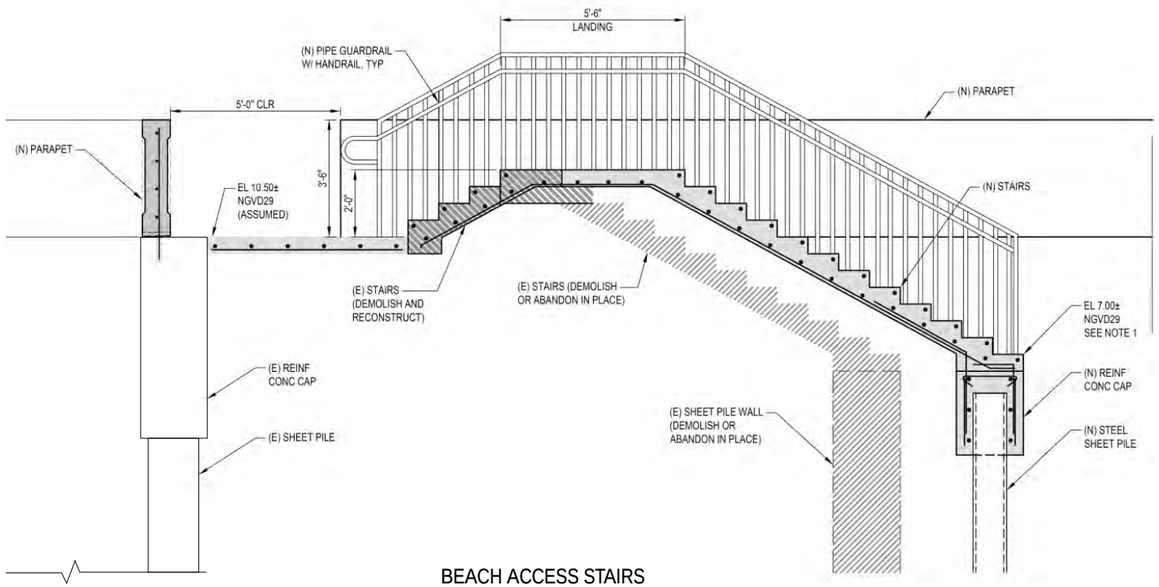


EXISTING PEDESTRIAN BEACH ACCESS LOCATIONS WITHIN PROJECT LIMITS



BEACH ACCESS STAIRS

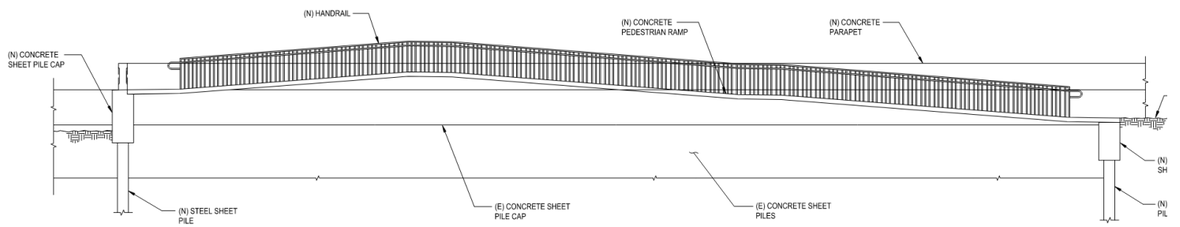


FIGURE 4-10. BEACH ACCESS ADA RAMP

SOURCE: Moffatt & Nichol 2024 Preliminary Engineering Report Mission Bay Park Improvement PEIR Mission Beach Seawall Improvements Feasibility Study

FIGURE 3-26

Restoration of Seawall Bulkhead Element - Stairway and ADA Ramps (access replacement)

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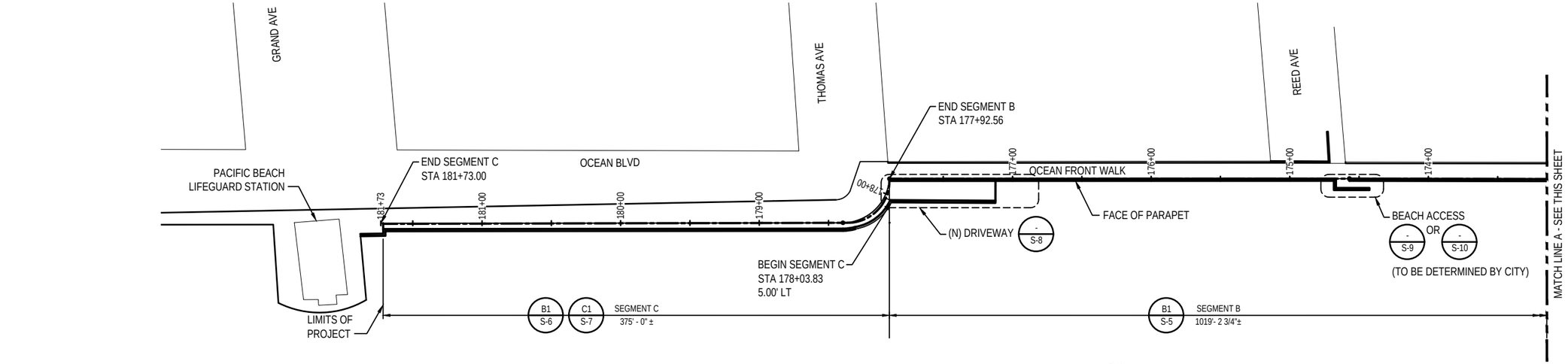
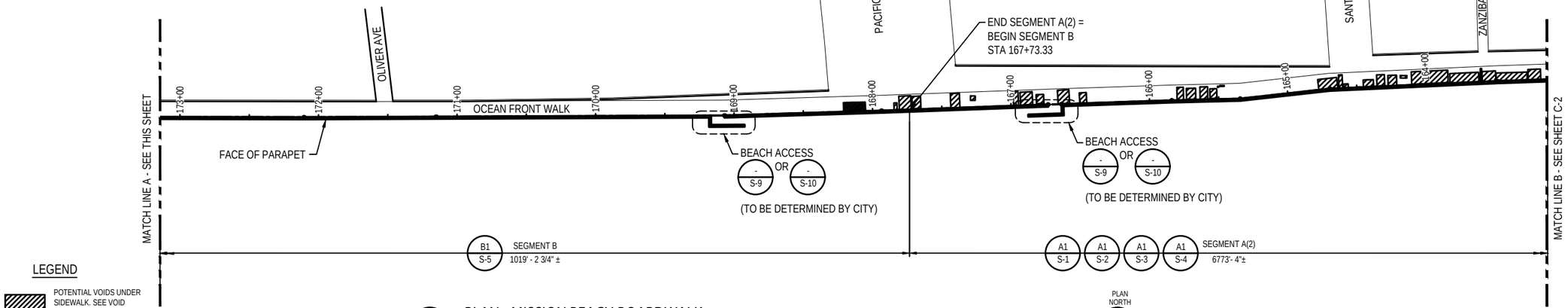


C1 PLAN - MISSION BEACH BOARDWALK

SCALE: NTS

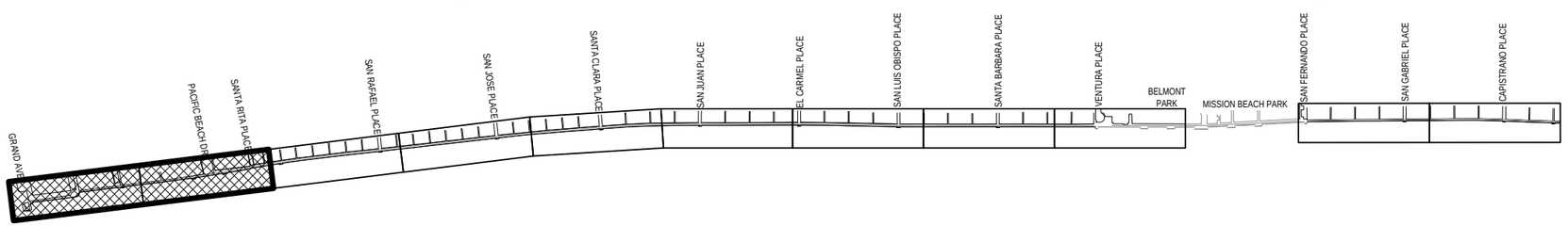


LEGEND

POTENTIAL VOIDS UNDER SIDEWALK. SEE VOID MAPPING DISCLAIMER.

A1 PLAN - MISSION BEACH BOARDWALK

SCALE: NTS



OVERALL KEY PLAN

NOT TO SCALE

NORTH

SOURCE: City of San Diego Public Works Department, 2022

FIGURE 3-27

Mission Beach Seawall Element - Proposed Plan - Sheet 1

Mission Bay Park Improvements Program EIR

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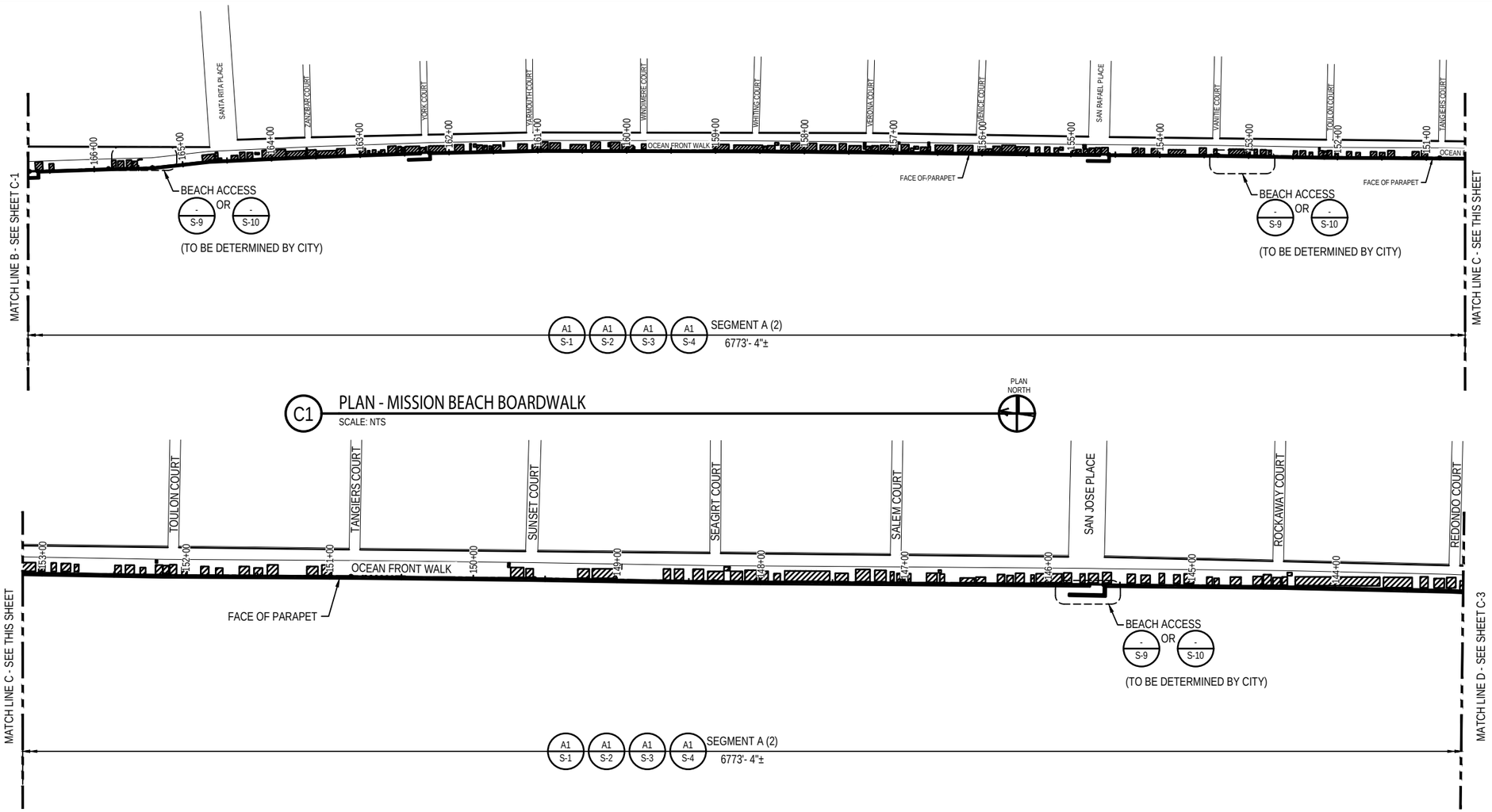

SOURCE: City of San Diego Public Works Department, 2022

FIGURE 3-28

Mission Beach Seawall Element - Proposed Plan - Sheet 2

Mission Bay Park Improvements Program EIR

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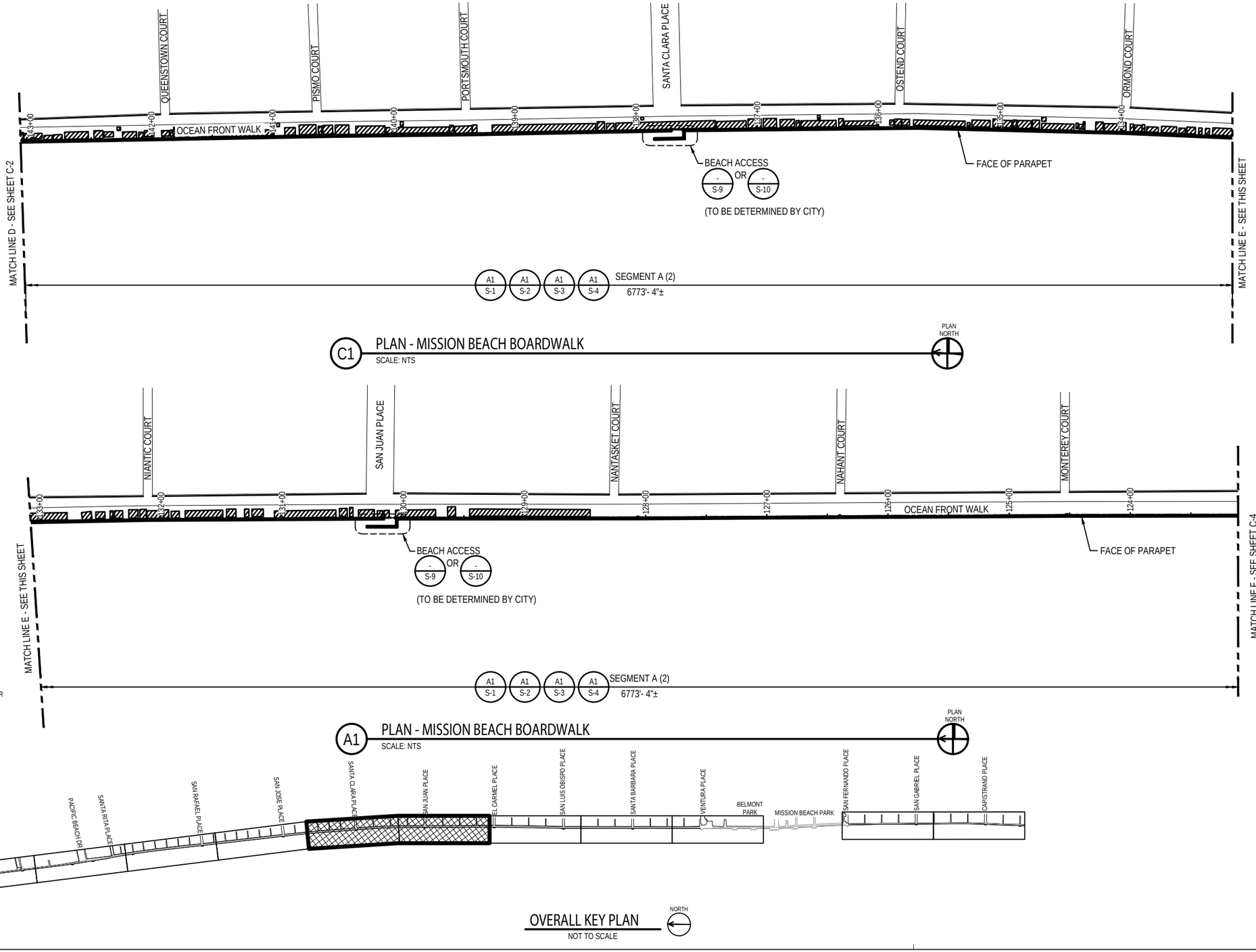

SOURCE: City of San Diego Public Works Department, 2022

FIGURE 3-29

Mission Beach Seawall Element - Proposed Plan - Sheet 3

Mission Bay Park Improvements Program EIR

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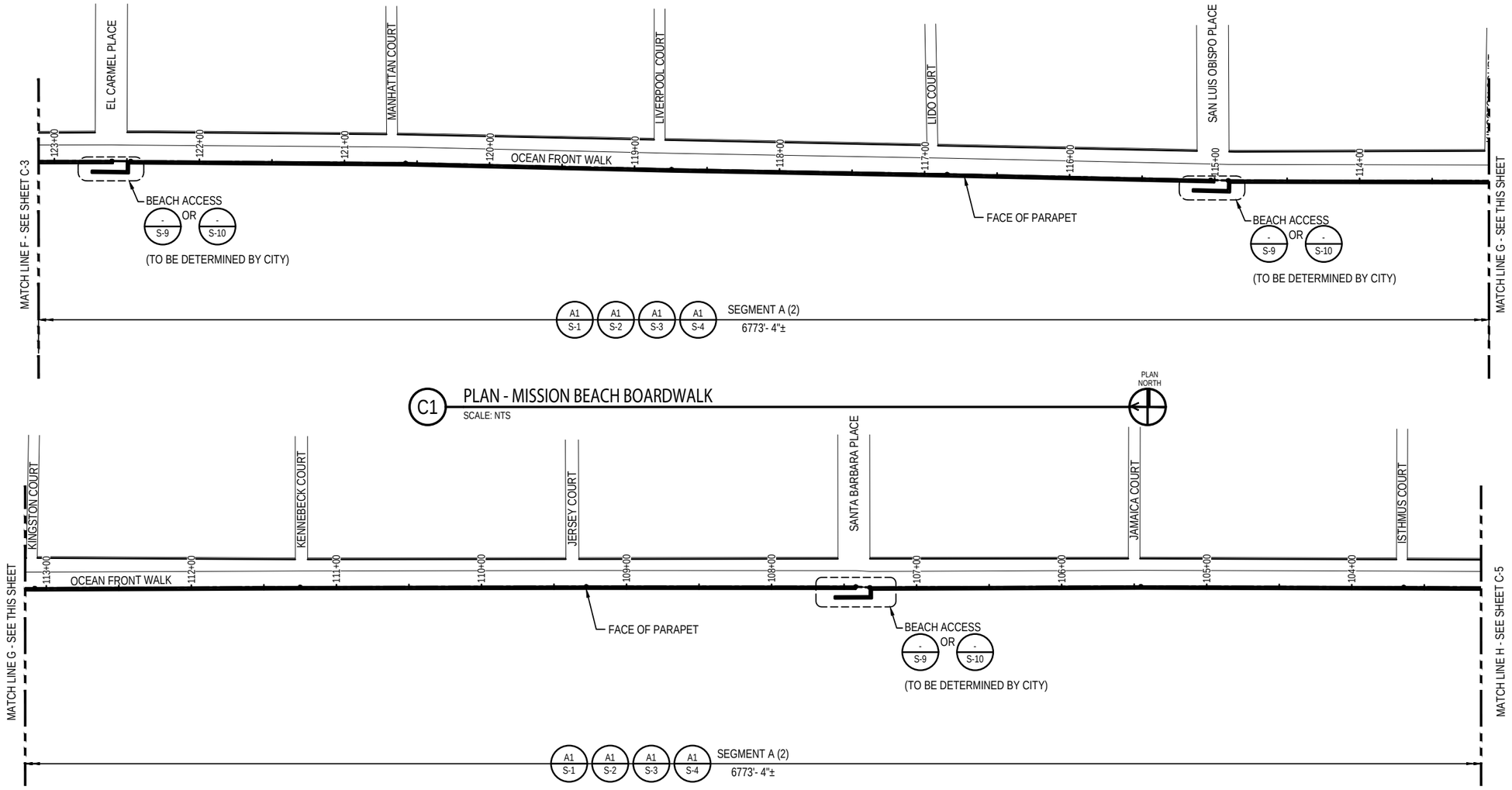

SOURCE: City of San Diego Public Works Department, 2022

FIGURE 3-30

Mission Beach Seawall Element - Proposed Plan - Sheet 4

Mission Bay Park Improvements Program EIR

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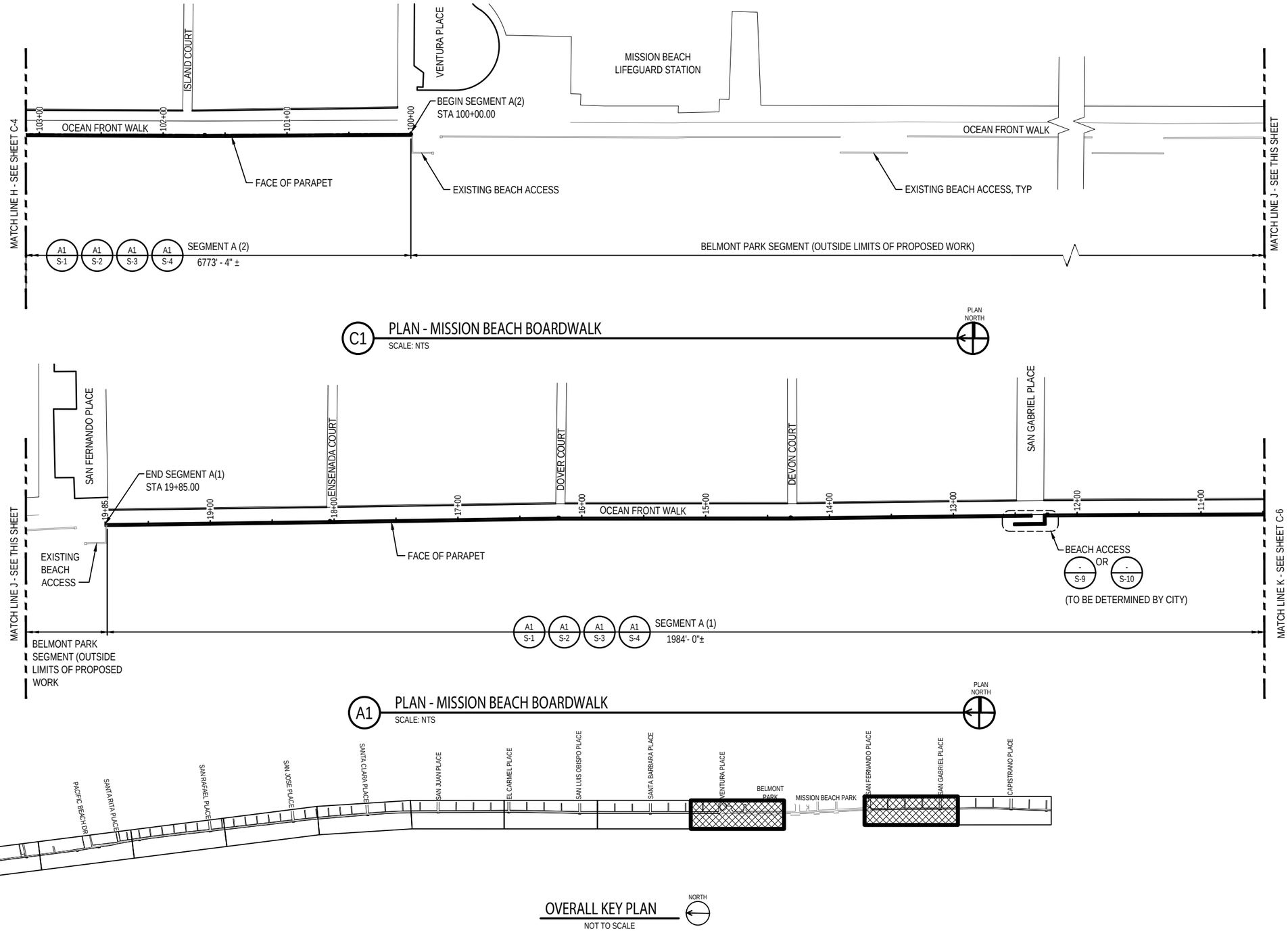

SOURCE: City of San Diego Public Works Department, 2022

FIGURE 3-31

Mission Beach Seawall Element - Proposed Plan - Sheet 5

Mission Bay Park Improvements Program EIR

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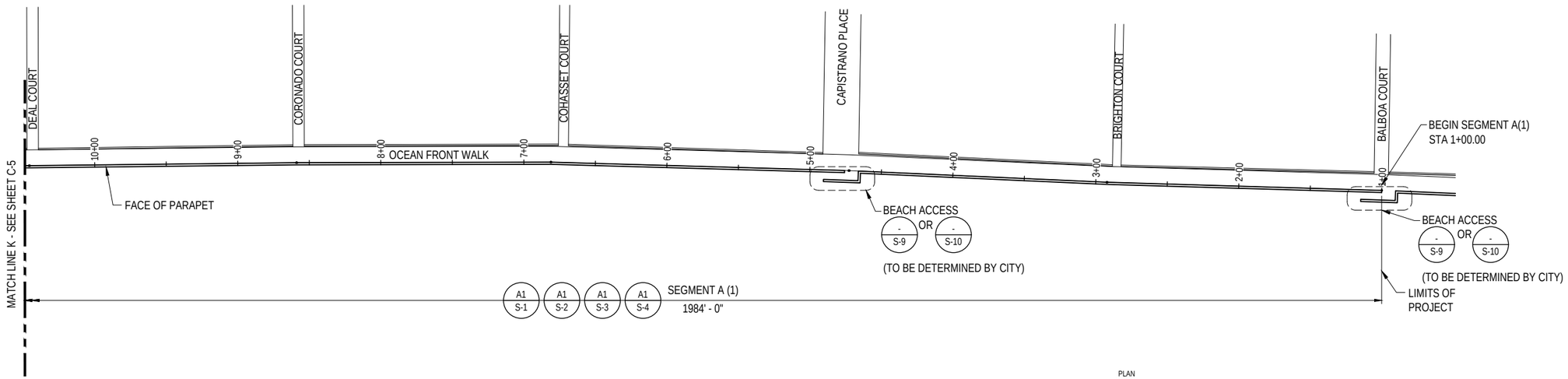
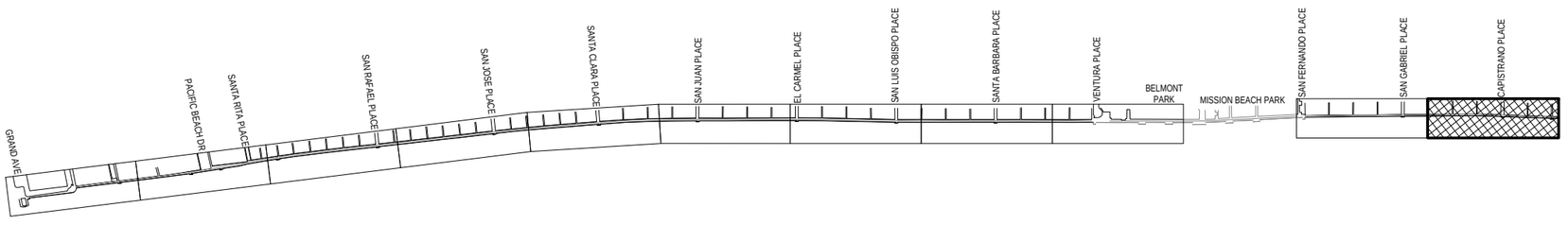


C1 PLAN - MISSION BEACH BOARDWALK

SCALE: NTS

PLAN NORTH



OVERALL KEY PLAN

NOT TO SCALE

NORTH

SOURCE: City of San Diego Public Works Department, 2022

FIGURE 3-32

Mission Beach Seawall Element - Proposed Plan - Sheet 6

Mission Bay Park Improvements Program EIR

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SOURCE: Dudek, 2025

FIGURE 3-33

Signage Parks Within a Park

Mission Bay Park Improvements Program EIR

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4 ENVIRONMENTAL IMPACT ANALYSIS

Chapter 4, Environmental Impact Analysis, discloses the potential environmental impacts resulting from implementation of the following key Mission Bay Park Improvements Program (Program) elements:

1. Wetland and Water Quality Improvements Element
2. Restoration of Shoreline Element
3. Upland Habitat and Preserve Expansion Element
4. Bicycle and Pedestrian Improvements Element
5. Restoration of Seawall Bulkhead Element

As described in Chapter 3, Project Description, the Signage Update Element is exempt from CEQA analysis and not analyzed in this chapter. Most activities under the Deferred Maintenance Element are also exempt from CEQA. However, should future Deferred Maintenance activities be found consistent with impact analysis and the programmatic mitigation framework of this PEIR, future consistency analysis of Deferred Maintenance may be conducted in accordance with Sections 15162 and 15168 of the CEQA Guidelines.

Sections 4.1 through 4.12 of this EIR analyze the potential environmental impacts that may occur as a result of implementation of the Program. The environmental issues analyzed in the following sections include those that were identified by the City as potentially significant during scoping. There are 12 environmental impact areas addressed in the following sections. A brief discussion of additional environmental topics that the City determined would not be significant is included in Section 7.2, Effects Found Not to be Significant, of this EIR. The environmental topics addressed in individual sections of this chapter include the following:

- 4.1 Air Quality
- 4.2 Biological Resources
- 4.3 Energy
- 4.4 Geology and Soils
- 4.5 Greenhouse Gas Emissions
- 4.6 Historical Resources (Built Environment and Archaeological Resources)
- 4.7 Health and Safety
- 4.8 Hydrology and Water Quality
- 4.9 Land Use and Planning

- 4.10 Noise
- 4.11 Recreation
- 4.12 Tribal Cultural Resources

Each section is formatted to include a reference to the relevant sections in Chapter 2, Environmental Setting, that address the existing conditions; a description of the regulatory context; a description of the methodology and assumptions used in the analysis, if applicable; the criteria for determining the significance for each impact; an evaluation of potential impacts; an assessment of the level of significance for each impact; a mitigation framework, if applicable; and a conclusion of significance after mitigation.

4.1 AIR QUALITY

This section describes the existing conditions of the Program location and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Mission Bay Park Improvements Program (Program), if applicable.

The following discussion is based on the Air Quality Technical Report prepared by Dudek and included as Appendix L of this Environmental Impact Report (EIR).

4.1.1 EXISTING CONDITIONS

Project Location

The Program location consists of the Mission Bay Park Improvement Zone (Improvement Zone), as defined in City of San Diego (City) Charter Section 55.2. Regionally, the Improvement Zone is located in the westernmost portion of central City of San Diego. The Program is located at the coastline in the City of San Diego bounded by the communities of Pacific Beach to the north, Ocean Beach to the south, Mission Beach to the west, and Interstate 5 to the east. The Improvement Zone encompasses the 4,235-acre Mission Bay Park, along with additional areas in all directions. Within the Improvement Zone are various identified sites for known discrete projects (or "elements") within the Program to be analyzed under this EIR.

Meteorological and Topographical Conditions

The San Diego Air Basin (SDAB) lies in the southwest corner of California, comprises the entire San Diego region (covering approximately 4,260 square miles), and is an area of high air pollution potential. The SDAB experiences warm summers, mild winters, infrequent rainfalls, light winds, and moderate humidity. This usually mild climatological pattern is interrupted infrequently by periods of extremely hot weather, winter storms, or Santa Ana winds.

The climate also drives the pollutant levels. The climate of San Diego is classified as Mediterranean, but it is incredibly diverse due to the topography. The climate is dominated by the Pacific High-pressure system that results in mild, dry summers and mild, wet winters. The Pacific High drives the prevailing winds in the SDAB. The winds tend to blow onshore during the daytime and offshore at night. In the fall months, the SDAB is often impacted by Santa Ana winds. These winds are the result of a high-pressure system over the Nevada–Utah region that overcomes the westerly wind pattern and forces hot, dry winds from the east to the Pacific Ocean (SDAPCD 2015). The winds blow the air basin's pollutants out to sea. However, a weak Santa Ana can transport air pollution from the South Coast Air Basin and greatly increase the San Diego ozone (O_3) concentrations. A strong Santa Ana also primes the vegetation for firestorm conditions.

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 aloft remains warm. The shallow inversion layer formed between these two air masses can also trap pollutants. As the pollutants become more concentrated in the atmosphere, photochemical reactions occur that produce 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 emissions of carbon monoxide (CO) and oxides of nitrogen (NO_x). CO concentrations are generally higher in the morning and late evening. In the morning, CO levels are elevated due to cold temperatures and the large number of motor vehicles traveling. 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 basin are associated with heavy traffic. Nitrogen dioxide (NO_2) levels are also generally higher during fall and winter days when O_3 concentrations are lower.

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

Criteria Pollutants

Criteria air pollutants are defined as pollutants for which the federal and state governments have established ambient air quality standards (criteria) for outdoor concentrations to protect public health. The federal and state standards have been set, with an adequate margin of safety, at levels above which concentrations could be harmful to human health and welfare. These standards are designed to protect the most sensitive persons from illness or discomfort.

The following provides a brief summary of criteria air pollutants and non-criteria pollutants that could be generated by construction and operation of the Program and are analyzed herein. Please refer to Appendix L for a more detailed discussion of all criteria air pollutants and non-criteria pollutants from estimated project operations and construction.[1]

[1] The following descriptions of health effects for each of the criteria air pollutants associated with project construction and operations are based on the U.S. Environmental Protection Agency's "Criteria Air Pollutants" (EPA 2025) and the California Air Resources Board's "Glossary" (CARB 2025a) published information.

Ozone. O_3 is a strong-smelling pollutant formed in the atmosphere by a photochemical process involving the sun's energy and O_3 precursors. The O_3 that the U.S. Environmental Protection Agency (EPA) and California Air Resources Board (CARB) regulate as a criteria air pollutant is produced close to the ground level, where people live, exercise, and breathe. Ground-level O_3 is a harmful air pollutant that causes numerous adverse health effects and is, thus, considered "bad" O_3. Stratospheric, or "good," O_3 occurs naturally in the upper atmosphere, where it reduces the amount of ultraviolet light (i.e., solar radiation) entering the Earth's atmosphere.

O_3 in the troposphere causes numerous adverse health effects; short-term exposures (lasting for a few hours) to O_3 at levels typically observed in Southern California can result in breathing pattern changes, reduction of breathing capacity, increased susceptibility to infections, inflammation of the lung tissue, and some immunological changes (EPA 2013). These health problems are particularly acute in sensitive receptors such as the sick, the elderly, and young children.

Nitrogen Dioxide and Oxides of Nitrogen. NO_2 is a brownish, highly reactive gas that is present in all urban atmospheres. NO_x is formed from fuel combustion under high temperature or pressure and is an important precursor to acid rain. The two major emissions sources of NO_x are transportation and stationary fuel combustion sources, such as electric utility and industrial boilers. NO_2 can irritate the lungs, cause bronchitis and pneumonia, and lower resistance to respiratory infections.

NO_X plays a major role, together with VOCs, in the atmospheric reactions that produce O_3. NO_X is formed from fuel combustion under high temperature or pressure. In addition, NO_X is an important precursor to acid rain and may affect both terrestrial and aquatic ecosystems.

Carbon Monoxide. CO is a colorless, odorless gas formed by the incomplete combustion of hydrocarbon, or fossil fuels. CO is emitted almost exclusively from motor vehicles, power plants, refineries, industrial boilers, ships, aircraft, and trains. In urban areas, automobile exhaust accounts for the majority of CO emissions. CO from motor vehicle exhaust can become locally concentrated when surface-based temperature inversions are combined with calm atmospheric conditions, which is a typical situation at dusk in urban areas from November to February. The highest levels of CO typically occur during the colder months of the year, when inversion conditions are more frequent. The results of excess CO exposure can include dizziness, fatigue, and impairment of central nervous system functions.

Sulfur Dioxide. SO_2 is a colorless, pungent gas that is produced from coal and oil used in power plants and industries SO_2 concentrations have been reduced by the increasingly stringent controls placed on stationary source emissions of SO_2 and limits on the sulfur content of fuels. SO_2 is an irritant gas that attacks the throat and lungs and can cause acute respiratory symptoms and diminished ventilator

function in children. When combined with particulate matter, SO_2 can injure lung tissue and reduce visibility and the level of sunlight.

Particulate Matter. Particulate matter pollution consists of very small liquid and solid particles floating in the air, which can include smoke, soot, dust, salts, acids, and metals. $PM_{2.5}$ and PM_{10} represent fractions of particulate matter. Coarse particulate matter (PM_{10}) consists of particulate matter that is 10 microns or less in diameter (about 1/7 the thickness of a human hair). Major sources of PM_{10} include crushing or grinding operations; dust stirred up by vehicles traveling on roads; dust from construction, landfills, and agriculture; wildfires and brush/waste burning; industrial sources; and windblown dust from open lands. Fine particulate matter ($PM_{2.5}$) consists of particulate matter that is 2.5 microns or less in diameter (roughly 1/28 the diameter of a human hair). $PM_{2.5}$ results from fuel combustion (e.g., from motor vehicles and power generation and industrial facilities), residential fireplaces, and woodstoves.

$PM_{2.5}$ and PM_{10} pose a greater health risk than larger-size particles. When inhaled, these tiny particles can penetrate the human respiratory system's natural defenses and damage the respiratory tract. $PM_{2.5}$ and PM_{10} can increase the number and severity of asthma attacks, cause or aggravate bronchitis and other lung diseases, and reduce the body's ability to fight infections.

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

Volatile Organic Compounds. Hydrocarbons are organic gases that are formed from hydrogen and carbon and sometimes other elements. Hydrocarbons that contribute to formation of O_3 are referred to and regulated as volatile organic compounds (VOCs; also referred to as reactive organic gases). Combustion engine exhaust, oil refineries, and fossil-fueled power plants are the primary sources of hydrocarbons.

High levels of VOCs in the atmosphere can interfere with oxygen intake by reducing the amount of available oxygen through displacement.

Non-Criteria Pollutants

Toxic Air Contaminants (TACs). A substance is considered toxic if it has the potential to cause adverse health effects in humans, including increasing the risk of cancer upon exposure, or acute and/or chronic non-cancer health effects. A toxic substance released into the air is considered a TAC. TACs are identified through a two-step process that was established in 1983 under the Toxic Air Contaminant Identification and Control Act. This two-step process of risk identification and risk

management and reduction was designed to protect residents from the health effects of toxic substances in the air.

TACs are generated by a number of sources, including stationary sources, such as dry cleaners, gas stations, combustion sources, and laboratories; mobile sources, such as automobiles; and area sources, such as landfills. Adverse health effects associated with exposure to TACs may include carcinogenic (i.e., cancer-causing) and noncarcinogenic (i.e., short-term [acute] or long-term [chronic]) effects.

Diesel Particulate Matter. Diesel particulate matter (DPM) is part of a complex mixture that makes up diesel exhaust. Diesel exhaust is composed of two phases, gas and particle, both of which contribute to health risks. More than 90% of DPM is less than one micrometer in diameter is a subset of $PM_{2.5}$ (CARB 2025b). DPM is typically composed of carbon particles ("soot," also called black carbon) and numerous organic compounds, including over 40 known cancer-causing organic substances. CARB classified "particulate emissions from diesel-fueled engines" (i.e., DPM) (17 California Code of Regulations [CCR] 93000) as a TAC in August 1998. DPM is emitted from a broad range of diesel engines, including on-road diesel engines from trucks, buses, and cars and off-road diesel engines from locomotives, marine vessels, and heavy-duty construction equipment, among others. Approximately 70% of all airborne cancer risk in California is associated with DPM (CARB 2000). Because it is part of $PM_{2.5}$, DPM also contributes to the same non-cancer health effects as $PM_{2.5}$ exposure. These effects include premature death; hospitalizations and emergency department visits for exacerbated chronic heart and lung disease, including asthma; increased respiratory symptoms; and decreased lung function in children. Those most vulnerable to non-cancer health effects are children whose lungs are still developing and the elderly who often have chronic health problems.

Odorous Compounds. Odors are generally regarded as an annoyance rather than a health hazard. Manifestations of a person's reaction to odors can range from psychological (e.g., irritation, anger, or anxiety) to physiological (e.g., circulatory and respiratory effects, nausea, vomiting, and headache). The ability to detect odors varies considerably among the population and, overall, is quite subjective. The occurrence and severity of odor impacts depend on the nature, frequency, and intensity of the source; wind speed and direction; and the sensitivity of receptors.

San Diego Air Basin Attainment Designation

Pursuant to the 1990 federal Clean Air Act (CAA) amendments, the EPA classifies air basins (or portions thereof) as in "attainment" or "nonattainment" for each criteria air pollutant, based on whether the National Ambient Air Quality Standards (NAAQS) have been achieved. Generally, if the recorded concentrations of a pollutant are lower than the standard, the area is classified as "attainment" for that pollutant. If an area exceeds the standard, the area is classified as "nonattainment" for that pollutant. If there is not enough data available to determine whether the standard is exceeded in an area, the area is designated as "unclassified" or "unclassifiable." The designation of

"unclassifiable/attainment" means that the area meets the standard or is expected to be meet the standard despite a lack of monitoring data. Areas that achieve the standards after a nonattainment designation are redesignated as maintenance areas and must have approved maintenance plans to ensure continued attainment of the standards. The CAA like its federal counterpart, called for the designation of areas as "attainment" or "nonattainment," but based on California Ambient Air Quality Standards (CAAQS) rather than the NAAQS. Table 5.3-1 depicts the current attainment status of the SDAB with respect to the NAAQS and CAAQS.

Table 4.1-1
San Diego Air Basin Attainment Classification

Pollutant	Designation/Classification	
	Federal Standards	State Standards
Ozone (O_3) – 1 hour	Attainment[a]	**Nonattainment**
O_3– (8 hour)	**Nonattainment**	**Nonattainment**
Nitrogen Dioxide (NO_2)	Unclassifiable/attainment	Attainment
Carbon Monoxide (CO)	Attainment	Attainment
Sulfur Dioxide (SO_2)	Unclassifiable/attainment	Attainment
Coarse Particulate Matter (PM_{10})	Unclassifiable[b]	**Nonattainment**
Fine Particulate Matter ($PM_{2.5}$)	Unclassifiable/attainment	**Nonattainment[c]**
Lead	Unclassifiable/attainment	Attainment
Hydrogen Sulfide	No federal standard	Attainment
Sulfates	No federal standard	Unclassified
Visibility-Reducing Particles	No federal standard	Unclassified
Vinyl Chloride	No federal standard	No designation

Sources: CARB 2025c; SDAPCD 2024.
Notes: Attainment = meets the standards; Nonattainment = does not meet the standards; Unclassified or Unclassifiable = insufficient data to classify;

[a] The federal 1-hour standard of 0.12 parts per million (ppm) 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.

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

[c] 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 $PM_{2.5}$ standards, the data completeness requirements for state $PM_{2.5}$ standards substantially exceed federal requirements and mandates, and have historically not been feasible for most air districts to adhere to given local resources. The San Diego Air Pollution Control District (SDAPCD) has begun replacing most regional filter-based $PM_{2.5}$ monitors as they reach the end of their useful life with continuous $PM_{2.5}$ air monitors to ensure collected data meets stringent completeness requirements in the future. APCD anticipates these new monitors will be approved as "CAS" monitors once CARB reviews the list of approved monitors, which has not been updated since 2013.

In summary, the SDAB is designated as an attainment area for the 1997 8-hour O_3 NAAQS and as a nonattainment area for the 2008 8-hour O_3 NAAQS. The SDAB is designated as a nonattainment area for O_3, PM_{10}, and $PM_{2.5}$ CAAQS. The portion of the SDAB where the proposed Program would be located is designated as attainment or unclassifiable/unclassified for all other criteria pollutants under the NAAQS and CAAQS.

Local Ambient Air Quality

CARB, air districts, and other agencies monitor ambient air quality at approximately 250 air quality monitoring stations across the state. Local ambient air quality is monitored by the San Diego Air Pollution Control District (SDAPCD). The SDAPCD operates a network of ambient air monitoring stations throughout the County that measure ambient concentrations of pollutants and determine whether the ambient air quality meets the CAAQS and the NAAQS. The nearest SDAPCD-operated monitoring station to the proposed Program is the Sherman Elementary School monitoring station, which is located approximately 5.5 miles southeast of the Program site. This monitoring station was used to show the background ambient air quality for O_3, $PM_{2.5}$, and NO_2 for the Program site. The monitoring station located in Chula Vista was the closest to the proposed Program that monitored PM_{10} (13 miles southeast of the Program site). The monitoring station located in El Cajon was the closest to the proposed Program that monitored CO and SO_2 (15 miles east of the Program site).

Sensitive Receptors

Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. Facilities and structures where these air pollution-sensitive people live or spend considerable amounts of time are known as sensitive receptors. Land uses where air pollution-sensitive individuals are most likely to spend time include schools and schoolyards, parks and playgrounds, daycare centers, nursing and retirement homes, hospitals, residential homes where medical patients reside, and residential communities (sensitive sites or sensitive land uses) (CARB 2005; City of San Diego 2022). The SDAPCD identifies sensitive receptors as those who are especially susceptible to adverse health effects from exposure to TACs, such as children, the elderly, and the ill. Sensitive receptors include schools (grades Kindergarten through 12), day care centers, nursing homes, retirement homes, health clinics, and hospitals within 2 kilometers of the facility (SDAPCD 2022). The Program involves construction activities at a number of existing sites throughout Mission Bay Park and sensitive receptors include residences adjacent to multiple Program elements.

4.1.2 RELEVANT PLANS, POLICIES, AND ORDINANCES

Please see Appendix L for a detailed overview of all federal and state regulations adopted to improve air quality. The following summarizes regulations applicable to the Program.

Federal

Federal Clean Air Act/National Ambient Air Quality Standards

The CAA, passed in 1970 and last amended in 1990, forms the basis for the national air pollution control effort. The EPA is responsible for implementing most aspects of the CAA, including setting the NAAQS for major air pollutants, hazardous air pollutant standards, approval of state attainment plans, motor vehicle emission standards, stationary source emission standards and permits, acid rain control measures, stratospheric O_3 protection, and enforcement provisions.

Under the CAA, NAAQS are established for the following criteria pollutants: O_3, CO, NO_2, SO_2, PM_{10}, $PM_{2.5}$, and lead. The NAAQS describe acceptable air quality conditions designed to protect the health and welfare of the citizens of the nation. The CAA requires the EPA to reassess the NAAQS at least every 5 years to determine whether adopted standards are adequate to protect public health based on current scientific evidence. States with areas that exceed the NAAQS must prepare state implementation plans (SIPs) that demonstrate how those areas will attain the standards within mandated time frames.

State

California Clean Air Act/California Ambient Air Quality Standards

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

CARB has established CAAQS, which are generally more restrictive than the NAAQS. The NAAQS and CAAQS are presented in Table 4.1-2.

Table 4.1-2
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	Primary[c,d]	Secondary[c,e]
O_3	1 hour	0.09 ppm (180 µg/m³)	—	Same as Primary Standard[f]
	8 hours	0.070 ppm (137 µg/m³)	0.070 ppm (137 µg/m³)[f]	
NO_2[g]	1 hour	0.18 ppm (339 µg/m³)	0.100 ppm (188 µg/m³)	Same as Primary Standard
	Annual Arithmetic Mean	0.030 ppm (57 µg/m³)	0.053 ppm (100 µg/m³)	
CO	1 hour	20 ppm (23 mg/m³)	35 ppm (40 mg/m³)	None
	8 hours	9.0 ppm (10 mg/m³)	9 ppm (10 mg/m³)	
SO_2[h]	1 hour	0.25 ppm (655 µg/m³)	0.075 ppm (196 µg/m³)	—
	3 hours	—	—	0.5 ppm (1,300 µg/m³)
	24 hours	0.04 ppm (105 µg/m³)	0.14 ppm (for certain areas)[g]	—
	Annual	—	0.030 ppm (for certain areas)[g]	—
PM_{10}[i]	24 hours	50 µg/m³	150 µg/m³	Same as Primary Standard
	Annual Arithmetic Mean	20 µg/m³	—	
$PM_{2.5}$[i]	24 hours	—	35 µg/m³	Same as Primary Standard
	Annual Arithmetic Mean	12 µg/m³	9.0 µg/m³	15.0 µg/m³
Lead[j,k]	30-day Average	1.5 µg/m³	—	—
	Calendar Quarter	—	1.5 µg/m³ (for certain areas)[k]	Same as Primary Standard
	Rolling 3-Month Average	—	0.15 µg/m³	
Hydrogen sulfide	1 hour	0.03 ppm (42 µg/m³)	—	—
Vinyl chloride[j]	24 hours	0.01 ppm (26 µg/m³)	—	—
Sulfates	24 hours	25 µg/m³	—	—

Table 4.1-2
Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards[a]	National Standards[b]	
		Concentration[c]	Primary[c,d]	Secondary[c,e]
Visibility reducing particles[l]	8 hour	See footnote l	—	—

Source: CARB 2024.

Notes: O_3 = ozone; ppm = parts per million by volume; □g/m^3 = micrograms per cubic meter; NO_2 = nitrogen dioxide; CO = carbon monoxide; mg/m^3= milligrams per cubic meter; SO_2 = sulfur dioxide; 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.

[a] California standards for O_3, CO, SO_2 (1-hour and 24-hour), NO_2, suspended particulate matter (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. California Ambient Air Quality Standards are listed in the Table of Standards in Section 70200 of Title 17 of the California Code of Regulations.

[b] National standards (other than O_3, NO_2, SO_2, particulate matter, and those based on annual averages or annual arithmetic mean) are not to be exceeded more than once per year. The O_3 standard is attained when the fourth highest 8-hour concentration measured at each site in a year, averaged over 3 years, is equal to or less than the standard. For PM_{10}, the 24-hour standard is attained when the expected number of days per calendar year with a 24-hour average concentration above 150 µg/m^3 is equal to or less than one. For $PM_{2.5}$, the 24-hour standard is attained when 98% of the daily concentrations, averaged over 3 years, are equal to or less than the standard.

[c] Concentration expressed first in units in which it was promulgated. Equivalent units given in parentheses are based on a reference temperature of 25°C and a reference pressure of 760 torr. Most measurements of air quality are to be corrected to a reference temperature of 25°C and a reference pressure of 760 torr; ppm in this table refers to ppm by volume, or micromoles of pollutant per mole of gas.

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

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

[f] On October 1, 2015, the national 8-hour O_3 primary and secondary standards were lowered from 0.075 to 0.070 ppm.

[g] To attain the national 1-hour standard, the three-year average of the annual 98th percentile of the one-hour daily maximum concentrations at each site must not exceed 100 parts per billion (ppb). Note that the national 1-hour standard is in units of ppb. California standards are in units of ppm. To directly compare the national 1-hour standard to the California standards, the units can be converted from ppb to ppm. In this case, the national standard of 100 ppb is identical to 0.100 ppm.

[h] On June 2, 2010, a new 1-hour SO_2 standard was established, and the existing 24-hour and annual primary standards were revoked. To attain the national 1-hour standard, the three-year average of the annual 99th percentile of the one-hour daily maximum concentrations at each site must not exceed 75 ppb. The 1971 SO_2 national standards (24-hour and annual) remain in effect until one year after an area is designated for the 2010 standard, except that in areas designated nonattainment of the 1971 standards, the 1971 standards remain in effect until implementation plans to attain or maintain the 2010 standards are approved.

[i] On February 7, 2024, the national annual $PM_{2.5}$ primary standard was lowered from 12.0 mg/m^3 to 9.0 mg/m^3. The existing national 24-hour $PM_{2.5}$ standards (primary and secondary) were retained at 35 □g/m^3, as was the annual secondary standard of 15 µg/m^3. The existing 24-hour PM_{10} standards (primary and secondary) of 150 □g/m^3 were also retained. The form of the annual primary and secondary standards is the annual mean averaged over three years.

[j] California Air Resources Board has identified lead and vinyl chloride as toxic air contaminants with no threshold level of exposure for adverse health effects determined. These actions allow for the implementation of control measures at levels below the ambient concentrations specified for these pollutants.

[k] The national standard for lead was revised on October 15, 2008, to a rolling three-month average. The 1978 lead standard (1.5 µg/m^3 as a quarterly average) remains in effect until one year after an area is designated for the 2008 standard, except that in areas designated nonattainment for the 1978 standard, the 1978 standard remains in effect until implementation plans to attain or maintain the 2008 standard are approved.

[l] In 1989, the ARB converted both the general statewide 10-mile visibility standard and the Lake Tahoe 30-mile visibility standard to instrumental equivalents, which are "extinction of 0.23 per kilometer" and "extinction of 0.07 per kilometer" for the statewide and Lake Tahoe Air Basin standards, respectively.

Toxic Air Contaminants

The state Air Toxics Program was established in 1983 under AB 1807 (Tanner). The California TAC list identifies more than 200 pollutants, of which carcinogenic and noncarcinogenic toxicity criteria have been established for a subset of these pollutants pursuant to the California Health and Safety Code. In accordance with AB 2728, the state list includes the (federal) hazardous air pollutants. The Air Toxics "Hot Spots" Information and Assessment Act of 1987 (AB 2588) seeks to identify and evaluate risk from air toxics sources; however, AB 2588 does not regulate air toxics emissions. TAC emissions from individual facilities are quantified and prioritized. "High-priority" facilities are required to perform a health risk assessment, and if specific thresholds are exceeded, are required to communicate the results to the public in the form of notices and public meetings.

In 2000, CARB approved a comprehensive Diesel Risk Reduction Plan to reduce diesel emissions from both new and existing diesel-fueled vehicles and engines. The regulation was anticipated to result in an 80% decrease in statewide diesel health risk in 2020 compared with the diesel risk in 2000. Additional regulations apply to new trucks and diesel fuel, including the On-Road Heavy Duty Diesel Vehicle (In-Use) Regulation, the On-Road Heavy Duty (New) Vehicle Program, the In-Use Off-Road Diesel Vehicle Regulation, and the New Off-Road Compression-Ignition (Diesel) Engines and Equipment Program. All of these regulations and programs have timetables by which manufacturers must comply and existing operators must upgrade their diesel-powered equipment. Several Airborne Toxic Control Measures reduce diesel emissions, including In-Use Off-Road Diesel-Fueled Fleets (13 CCR 2449 et seq.) and In-Use On-Road Diesel-Fueled Vehicles (13 CCR 2025).

Local

San Diego Air Pollution Control District

While CARB is responsible for the regulation of mobile emission sources within the state, local air quality management districts and air pollution control districts are responsible for enforcing standards and regulating stationary sources. The Program site is located within the SDAB and is subject to the guidelines and regulations of the SDAPCD.

In the County, O_3 and particulate matter are the pollutants of main concern since exceedances of state ambient air quality standards for those pollutants have been observed in most years. For this reason, the SDAB has been designated as a nonattainment area for the state PM_{10}, $PM_{2.5}$, and O_3 standards. The SDAB is also a federal O_3 attainment (maintenance) area for 1997 8-hour O_3 standard, an O_3 nonattainment area for the 2008 8-hour O_3 standard, and a CO maintenance area (western and central part of the SDAB only, including the Program site).

Federal Attainment Plans

In November 2020, SDAPCD adopted the Air Quality Management Plan for attaining the federal 8-hour 75 parts per billion (ppb) and 70 ppb Ozone standards (2020 Attainment Plan), which is the SDAB's input to the SIP and required to demonstrate how the SDAPCD proposes to attain the federal ozone standards. The plan anticipates attainment of the 75 ppb and 70 ppb NAAQS standards by 2026 and 2032, respectively. The 2020 Attainment Plan establishes planning requirements for attaining the O_3 NAAQS, including on-road motor vehicle emissions budgets for transportation conformity, a vehicle miles traveled offset demonstration, Reasonably Available Control Measures, Reasonable Further Progress, an Attainment Demonstration, and contingency measures in the event of a failure to meet a milestone or to attain by the predicted attainment date (SDAPCD 2020a).

In December 2016, the SDAPCD adopted an update to the Eight-Hour Ozone Attainment Plan for San Diego County (2008 O_3 NAAQS), which indicated that local controls and state programs would allow the region to reach attainment of the federal 8-hour O_3 standard (1997 O_3 NAAQS) by 2018 (SDAPCD 2016a). In this plan, SDAPCD relies on the RAQS to demonstrate how the region will comply with the federal O_3 standard. The RAQS details how the region will manage and reduce O_3 precursors (NO_x and VOCs) by identifying measures and regulations intended to reduce these pollutants. The control measures identified in the RAQS generally focus on stationary sources; however, the emissions inventories and projections in the RAQS address all potential sources, including those under the authority of CARB and the EPA. Incentive programs for reduction of emissions from heavy-duty diesel vehicles, off-road equipment, and school buses are also established in the RAQS.

Currently, the County is designated as moderate nonattainment for the 2008 NAAQS and maintenance for the 1997 NAAQS. As documented in the 2016 8-Hour Ozone Attainment Plan for San Diego County, the County has a likely chance of obtaining attainment due to the transition to low-emission cars, stricter new source review rules, and continuing the requirement of general conformity for military growth and the San Diego International Airport. The County will also continue emission control measures, including ongoing implementation of existing regulations in O_3 precursor reduction to stationary and area-wide sources, subsequent inspections of facilities and sources, and the adoption of laws requiring best available retrofit control technology for control of emissions (SDAPCD 2016a).

State Attainment Plans

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. The Regional Air Quality Strategy (RAQS) for the SDAB was initially adopted in 1991 and is updated every 3 years, most recently in 2022 (SDAPCD 2023). The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for O_3. The RAQS relies on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County and the cities in the County, to forecast future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. The CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their general plans (SANDAG 2021a).

On March 9, 2023, SDAPCD adopted the revised 2022 RAQS for the County. The RAQS plan demonstrates how the San Diego region will further reduce air pollution emissions to meet state health-based standards for ground-level O_3. The 2022 RAQS guides SDAPCD in deploying tools, strategies, and resources to continue reducing pollutants that are precursors to ground-level O_3, including NO_x and VOC. The 2022 RAQS emphasizes O_3 control measures but also identifies complementary measures and strategies that can reduce emissions of greenhouse gases and particulate matter. It also includes new analyses exploring O_3 and its relationship to public health, mobile sources, under-resourced communities, and greenhouse gases and climate change. Further, the 2022 RAQS identifies strategies to expand SDAPCD regional partnerships, identify more opportunities to engage the public and communities of concern, and integrate environmental justice and equity across all proposed measures and strategies.

Regarding particulate matter emissions-reduction efforts, in December 2005, the SDAPCD prepared a report titled Measures to Reduce Particulate Matter in San Diego County to address implementation of Senate Bill 656 (Senate Bill 656 required additional controls to reduce ambient concentrations of PM_{10} and $PM_{2.5}$) (SDAPCD 2005). In the report, SDAPCD evaluated implementation of source-control

measures that would reduce particulate matter emissions associated with residential wood combustion; various construction activities including earthmoving, demolition, and grading; bulk material storage and handling; carry-out and track-out removal and cleanup methods; inactive disturbed land; disturbed open areas; unpaved parking lots/staging areas; unpaved roads; and windblown dust (SDAPCD 2005).

SDAPCD Rules and Regulations

As stated above, the SDAPCD is responsible for planning, implementing, and enforcing federal and state ambient standards in the SDAB. The following rules and regulations apply to the Program.

SDAPCD Regulation IV: Prohibitions; Rule 50: Visible Emissions

This rule prohibits discharge into the atmosphere from any single source of emissions whatsoever any air contaminant for a period or periods aggregating more than 3 minutes in any period of 60 consecutive minutes, which is darker in shade than that designated as Number 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or of such opacity as to obscure an observer's view to a degree greater than does smoke of a shade designated as Number 1 on the Ringelmann Chart (SDAPCD 1997).

Construction of the proposed Program may result in visible emissions, primarily during earth-disturbing activities, which would be subject to SDAPCD Rule 50. Although visible emissions are less likely to occur during operation of the proposed Program, compliance with SDAPCD Rule 50 would be required during both construction and operational phases.

SDAPCD Regulation IV: Prohibitions; Rule 51: Nuisance

This rule prohibits the discharge, from any source, of such quantities of air contaminants or other materials that cause or have a tendency to cause injury, detriment, nuisance, annoyance to people and/or the public, or damage to any business or property (SDAPCD 1969).

Any criteria air pollutant emissions, TAC emissions, or odors that would be generated during construction or operation of the proposed Program would be subject to SDAPCD Rule 51. Violations can be reported to the SDAPCD in the form of an air quality complaint by telephone, email, and online form. Complaints are investigated by the SDAPCD as soon as possible.

SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust

This rule regulates fugitive dust emissions from any commercial construction or demolition activity capable of generating fugitive dust emissions, including active operations, open storage piles, and

inactive disturbed areas, as well as track-out and carry-out onto paved roads beyond a project site (SDAPCD 2009).

Construction of the proposed Program, primarily during earth-disturbing activities, may result in fugitive dust emissions that would be subject to SDAPCD Rule 55. Fugitive dust emissions are not anticipated during operation of the proposed Program.

SDAPCD Regulation IV: Prohibitions; Rule 67.0.1: Architectural Coatings

Requires manufacturers, distributors, and end users of architectural and industrial maintenance coatings to reduce VOC emissions from the use of these coatings, primarily by placing limits on the VOC content of various coating categories (SDAPCD 2021).

4.1.3 SIGNIFICANCE DETERMINATION THRESHOLDS

Thresholds used to evaluate potential impacts related to air quality are based on applicable criteria in the California Environmental Quality Act (CEQA) Guidelines Appendix G and the City's CEQA Significance Determination Thresholds (2022). The following issue questions are addressed in this section:

1. Would the project conflict with or obstruct implementation of the applicable air quality plan;
2. Would the project violate any air quality standard or contribute substantially to an existing or projected air quality violation;
3. Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including release emissions which exceed quantitative thresholds for ozone precursors);
4. Would the project expose sensitive receptors to substantial pollutant concentration including air toxics such as diesel particulates[2]
5. Would the project create objectionable odors affecting a substantial number of people; or
6. Would the project release substantial quantities of air contaminants beyond the boundaries of the premises upon which the stationary source emitting the contaminants is located.

[2] As adopted by the South Coast Air Quality Management District in their CEQA Air Quality Handbook (Chapter 4) (SCAQMD 1993), a sensitive receptor is a person in the population who is more susceptible to health effects due to exposure to an air contaminant than is the population at large. Sensitive receptors (and the facilities that house them) in proximity to localized carbon monoxide sources, toxic air contaminants, or odors are of particular concern. Examples include long-term health care facilities, rehabilitation centers, convalescent centers, retirement homes, residences, schools, playgrounds, child care centers, and athletic facilities.

In addition to the City's CEQA Significance Determination Thresholds (City of San Diego 2022) general threshold questions, the potential for the proposed Program to release substantial quantities of air contaminants that could result in health affects is addressed in the criteria air pollutant emissions, TAC emissions, and odors analysis in accordance with the San Diego Municipal Code. San Diego Municipal Code, Chapter 14, Article 2, Division 7, Off-Site Development Impact Regulations paragraph 142.0710, Air Contaminant Regulations, states: "Air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located." (Added 12-9-1997 by O- 18451 N.S.; effective 1-1-2000.)

The City's Air Quality Significance Thresholds shown in Table 4.1-3 were used to determine significance of proposed Program-generated construction and operational criteria air pollutants; specifically, the proposed Program's potential to violate any air quality standard or contribute substantially to an existing or projected air quality violation (as assessed under the threshold criterion 2). In regard to the analysis of potential impacts to sensitive receptors, the City specifically recommends consideration of sensitive receptors in locations such as day care centers, schools, retirement homes, and hospitals, or medical patients in residential homes close to major roadways or stationary sources, which could be impacted by air pollutants. The City also states that the significance of potential odor impacts should be determined based on what is known about the quantity of the odor compound(s) that would result from the Program's proposed use(s), the types of neighboring uses potentially affected, the distance(s) between the Program's point source(s) and the neighboring uses such as sensitive receptors, and the resultant concentration(s) at the receptors.

The air quality section of the CEQA Significance Determination Thresholds recognizes attainment status designations for the SDAB and its nonattainment status for both ozone and particulate matter. As such, the document recognizes that all new projects should include measures, pursuant to CEQA, to reduce project-related emissions of ozone precursors and particulate matter to ensure new development does not contribute to San Diego's nonattainment status for these pollutants. As part of its air quality permitting process, the SDAPCD has established thresholds in Rule 20.2 requiring the preparation of Air Quality Impact Assessments for permitted stationary sources (SDAPCD 2016b). The SDAPCD sets forth quantitative emissions thresholds below which a stationary source would not have a significant impact on ambient air quality. Project-related air quality impacts estimated in this environmental analysis would be considered significant if any of the applicable significance thresholds presented in Table 4.1-3 are exceeded.

Table 4.1-3
Air Quality Significance Thresholds

Pollutant	Emission Rate		
	Pounds per Hour	Pounds per Day	Tons per Year
Coarse particulate matter (PM_{10})	N/A	100	15
Fine particulate matter ($PM_{2.5}$)[a]	N/A	67	10
Oxides of nitrogen (NO_x)	25	250	40
Sulfur oxides (SO_x)	25	250	40
Carbon monoxide (CO)	100	550	100
Lead and lead compounds	N/A	3.2	0.6
Volatile organic compounds (VOCs)	N/A	137[b]	15

Sources: City of San Diego 2022; SDAPCD 2020b.
Note: N/A = not applicable.
[a] $PM_{2.5}$ thresholds consistent with SDAPCD AQIA Trigger levels (Regulation II, Rule 20.2, Table 20.2-1).
[b] VOC threshold based on the threshold of significance for VOCs from the South Coast Air Quality Management District and the Monterey Bay Air Pollution Control District as stated in the City of San Diego's California Environmental Quality Act Significance Determination Thresholds (City of San Diego 2022).

The thresholds listed in Table 4.1-3 represent screening-level thresholds that can be used to evaluate whether Program-related emissions could cause a significant impact on air quality. Emissions below the screening-level thresholds would not cause a significant impact. For nonattainment pollutants, if emissions exceed the thresholds shown in Table 4.1-3, the proposed Program could have the potential to result in a cumulatively considerable net increase in these pollutants and, thus, could have a significant impact on the ambient air quality.

The SDAPCD document, Supplemental Guidelines for Submission of Air Toxics "Hot Spots" Program Health Risk Assessments, provides guidance with which to perform health risk assessments within the SDAB. The current SDAPCD thresholds of significance for TAC emissions from the operations of both permitted and non-permitted sources are combined and are less than 10 in 1 million for cancer and less than 1.0 for the chronic hazard index (SDAPCD 2022).

With respect to odors, SDAPCD Rule 51 (Public Nuisance) prohibits emission of any material that causes nuisance to a considerable number of persons or endangers the comfort, health, or safety of any person. 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.

4.1.4 IMPACTS ANALYSIS

Issue 1: Would the proposed project conflict with or obstruct implementation of the applicable air quality plan?

To determine the significance of the Program's emissions on the environment, the City's CEQA Significance Determination Thresholds (City of San Diego 2022) were used. Per the City's thresholds, the Program would have a significant impact on air quality if the Program would conflict with or obstruct implementation of the applicable air quality plan.

As mentioned in Section 4.1.2, Local Regulations, SDAPCD and SANDAG are responsible for developing and implementing the clean air plans for attainment and maintenance of the NAAQS and CAAQS in the SDAB—specifically, the SIP and RAQS.[3] The federal O_3 maintenance plan, which is part of the SIP, was adopted in 2020. The SIP includes a demonstration that current strategies and tactics will maintain acceptable air quality in the SDAB based on the NAAQS. The RAQS was initially adopted in 1991 and is updated every 3 years (most recently in 2022). The RAQS outlines SDAPCD's plans and control measures designed to attain the CAAQS for O_3. The SIP and RAQS rely on information from CARB and SANDAG, including mobile and area source emissions, as well as information regarding projected growth in the County and the cities in the County, to project future emissions and then determine from that the strategies necessary for the reduction of emissions through regulatory controls. CARB mobile source emission projections and SANDAG growth projections are based on population, vehicle trends, and land use plans developed by the County and the cities in the County as part of the development of their General Plans. The 2022 RAQS continues to build upon previous progress to reduce ground-level O_3 and also complements regional actions addressing greenhouse gas and climate change.

If a project involves development that is greater than that anticipated in the local plan and SANDAG's growth projections, or if a project involves development that has the potential to exceed numeric thresholds established, the project might be in conflict with the SIP and RAQS and may contribute to a potentially significant cumulative impact on air quality.

The Improvement Zone is designated as Park, Open Space, & Recreation in the City's General Plan (City of San Diego 2024b). The Program area is located within the boundaries of the Mission Bay Park Master Plan (City of San Diego 2024a), which is a Community Planning Area in the City of San Diego. Implementation of the Program would align with the proposed land uses of the Mission Bay Parks Master Plan except for a portion of the area identified as South Shores for which the Mission Bay Park Master Plan proposes a public amphitheater and promenade. However, the Program proposes these

[3] For the purpose of this discussion, the relevant federal air quality plan is the O_3 maintenance plan (SDAPCD 2020a). The RAQS is the applicable plan for purposes of state air quality planning. Both plans reflect growth projections in the SDAB.

areas to be upland habitat preservation, which is consistent with the existing condition and underlying land use designation of parkland, and which would result in a lower emissions impact than the use of amphitheater and promenade as designated in the Mission Bay Park Master Plan. The Program is consistent with the current General Plan land use designations and intended uses. Therefore, the Program was anticipated and would not result in an inconsistency or conflict with the General Plan or Community Plan.

SANDAG produces a Regional Growth Forecast, which is important for developing regional plans and strategies mandated by federal and state governments, such as the Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS), the Program Environmental Impact Report for the RTP/SCS, the Air Quality Management Plan, the Federal Transportation Improvement Program, and the Regional Housing Needs Assessment. The most recent RTP/SCS was adopted in December 2021 (2021 Regional Plan) with a planning horizon of 2016 through 2050 (SANDAG 2021b). The growth forecasts are appended to the RTP/SCS. Appendix F of the 2021 Regional Plan describes the trends in population, housing, and employment. SANDAG's Series 14 Regional Growth Forecast estimated that the City would have a 27.8% increase in jobs from 2016 to 2050, which is an additional 247,848 jobs or approximately 7,289 jobs per year (SANDAG 2021a). The Program involves improvements to existing park areas, and the implementation of the Program would not result in a growth of population or housing, nor would it increase employment above existing conditions. Thus, the Program would be within SANDAG's growth projections.

The Program would comply with all existing and new rules and regulations as they are implemented by SDAPCD, CARB, and/or EPA related to emissions generated during construction and operation. However, as detailed in Issue 2 below, the Program would have the potential to exceed mass daily emission thresholds during concurrent construction of activities assuming the worst-case emissions scenario prior to mitigation; and therefore, the Program would potentially result in higher emissions than what was anticipated in the SIP and RAQS. While it is anticipated that during Program implementation construction of individual projects or certain concurrent projects would not exceed mass daily emission thresholds and would result in a less-than-significant impact without mitigation, because this analysis evaluates a worst-case scenario, impacts related to the Program's potential to conflict with or obstruct implementation of the applicable air quality plan would be **potentially significant** prior to mitigation.

Issue 2: Would the project result in a violation of any air quality standard or contribute substantially to an existing or projected air quality violation?

Issue 3: Would the project exceed 100 pounds per day of particulate matter (PM) (dust)?

Air pollution is largely a cumulative impact. The nonattainment status of regional pollutants is a result of past and present development, and the SDAPCD develops and implements plans for future attainment of ambient air quality standards. Based on these considerations, project-level thresholds of significance for criteria pollutants are relevant in the determination of whether a project's individual emissions violate any air quality standard or contribute substantially to an existing or projected air quality violation or have a cumulatively significant impact on air quality.

Construction Emissions

Construction of the proposed Program would result in the temporary addition of pollutants to the local airshed caused by on-site sources (i.e., off-road construction equipment, soil disturbance, and VOC off-gassing) and off-site sources (haul trucks, vendor trucks, worker vehicles, tugboats, and support vessels). Construction emissions can vary substantially day to day, depending on the level of activity, the specific type of operation, and for dust, the prevailing weather conditions. Therefore, such emission levels can only be approximately estimated with a corresponding uncertainty in precise ambient air quality impacts.

Criteria air pollutant emissions associated with construction activities were quantified using the California Emissions Estimator Model (CalEEMod) and a spreadsheet model. Default values provided by CalEEMod were used where detailed Program and specific component information was not available. A detailed depiction of the construction schedule—including information regarding phasing, equipment used during each phase, haul trucks, vendor trucks, and worker vehicles—is included in "Construction Scenario Assumptions Summary Tables" (Appendix A) to the Air Quality Technical Report (Appendix L of this EIR). The CalEEMod outputs with detailed construction emissions, as well as the emissions associated with tugboats and support vessels, are provided in "CalEEMod Output Files and Emissions Calculations" (Appendix B) to the Air Quality Technical Report (Appendix L of this EIR).

Development of the proposed Program and its components would generate air pollutant emissions from entrained dust, off-road equipment, vehicles, tugboats and vessels, asphalt pavement application, and architectural coatings. Entrained dust results from the exposure of earth surfaces to wind from the direct disturbance and movement of soil, resulting in PM_{10} and $PM_{2.5}$ emissions. As described previously, fugitive dust would be limited through compliance with SDAPCD Rule 55, which requires the restriction of visible emissions of fugitive dust beyond the property line.

Table 4.1-4 shows the estimated maximum daily unmitigated construction emissions generated during implementation of all components within each Program element. Emissions represent the maximum for summer and winter. Complete details of the emissions calculations are provided in "CalEEMod Output Files and Emissions Calculations" (Appendix B) to the Air Quality Technical Report (Appendix L of this EIR).

Table 4.1-4
Estimated Maximum Daily Construction Criteria Air Pollutant Emissions by Element – Unmitigated

Program Element Components	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per day					
Wetland and Water Quality Improvements Element[a]						
North Fiesta Island	12.84	131.24	126.94	0.71	43.87	21.82
Tecolote Creek and Fiesta Island Causeway	6.25	56.85	59.41	0.11	35.89	19.16
Cudahy Creek	12.61	124.83	123.14	0.69	43.33	21.68
Maximum	**12.84**	**131.24**	**126.94**	**0.71**	**43.87**	**21.82**
Restoration of Shoreline Element						
Vacation Island NW	1.97	62.97	30.03	0.28	18.46	7.16
Vacation Island NE – Ski Beach	1.04	24.93	11.79	0.12	0.37	3.75
Vacation Island NE – W of Ingraham	4.88	60.38	58.24	0.69	8.09	4.82
Vacation Island SW	4.88	60.38	58.24	0.70	8.09	4.82
Ventura Cove Park	4.88	62.13	58.27	0.72	8.10	4.83
Crown Point	2.11	18.65	19.31	0.04	7.55	4.16
West Sail Bay	2.34	29.50	22.41	0.08	16.22	8.16
Bonita Cove	1.44	12.88	13.50	0.05	7.11	3.80
Bahia Point	3.92	50.55	46.10	0.56	7.96	4.59
Maximum	**4.88**	**62.97**	**58.27**	**0.72**	**18.46**	**8.16**
Upland Habitat and Preserve Expansion Element						
Fiesta Island Sites[b]	3.07	63.35	35.15	0.28	19.74	7.81
Sea World Drive/San Diego River Sites[c]	1.96	23.06	16.82	0.06	15.28	7.83
Maximum	**3.07**	**63.35**	**35.15**	**0.28**	**19.74**	**7.83**
Bicycle and Pedestrian Improvements Element						
Rose Creek Bike Path	1.38	15.91	12.96	0.04	7.01	3.75

Table 4.1-4
Estimated Maximum Daily Construction Criteria Air Pollutant Emissions by Element – Unmitigated

Program Element Components	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per day					
Fiesta Island Causeway Path	1.04	9.39	9.23	0.02	7.01	3.75
Ocean Beach Bike Path	1.48	21.73	15.14	0.07	12.00	3.75
Fiesta Island Causeway Path	1.33	12.19	13.19	0.02	7.01	3.75
Maximum	**1.48**	**21.73**	**15.14**	**0.07**	**12.00**	**3.75**
Restoration of Seawall Bulkhead Element						
Seawall Construction (Replacement Segments A and B; New Segment C)	1.36	14.28	12.35	0.03	7.03	3.76
Access Improvements (Stairs; ADA Ramps; Driveway)	2.43	21.76	20.59	0.04	7.03	3.76
Maximum	**2.43**	**21.76**	**20.59**	**0.04**	**7.03**	**3.76**

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; CalEEMod = California Emissions Estimator Model.
See Appendix B of Appendix L for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod.

[a] Of the Wetland and Water Quality Element components, it is assumed that the North Fiesta Island component would be implemented before the other two wetland components and would not be constructed concurrently with the Tecolote Creek or Cudahy Creek components. The material from North Fiesta Island's stockpiles would be necessary for restoring the two other proposed wetland sites, Tecolote Creek and Cudahy component wetlands, when implementation of restoration projects is initiated.

[b] The Fiesta Island Sites include Site 1 (South), Site 3 (Near Youth Camping Facility), Site 4 (North Central), and Site 5 (Least Tern Preserve). The modeling assumes these sites would not have overlapping construction because of their proximity and coordination of staging area access, haul road access, and the City Annual Beach Area Construction Restriction. The emissions shown depict the maximum daily construction emissions for any individual one of these sites.

[c] The Sea World Drive/San Diego River Sites include Site 1a (Cloverfield Least Tern Preserve), Site 3c (Triangle Restoration Area), and Site 4d (South Shores). The modeling assumes these sites would not have overlapping construction because of their proximity and coordination of staging area access, haul road access, and the City Annual Beach Area Construction Restriction. The emissions shown depict the maximum daily construction emissions for any individual one of these sites.

As shown in Table 4.1-4, the maximum daily construction emissions for any individual component within any element would not exceed the City's daily thresholds of 137 pounds of VOC, 250 pounds of NO_x, 550 pounds of CO, 250 pounds of SO_x, 100 pounds of PM_{10}, and 67 pounds of $PM_{2.5}$.

As discussed in Section 2.4.2.1, Construction, within Appendix L, the Air Quality Technical Report, as a worst-case scenario, it is anticipated that the maximum number of construction activities that would be implemented concurrently (i.e., within the same day) is one component from each Program element (i.e., five components). For this conservative scenario, the components with the highest NO_x and PM_{10} emissions were chosen from each Program element. Table 4.1-5 presents the estimated maximum unmitigated daily construction emissions generated during implementation of the five most intensive[4] concurrent components and compares estimated total daily emissions to the City thresholds.

Table 4.1-5
Estimated Maximum Daily Construction Criteria Air Pollutant Emissions – Worst-Case Scenario from Concurrent Component Implementation – Unmitigated

Program Element Components	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per day					
Wetland and Water Quality Improvements Element						
North Fiesta Island	12.84	131.24	126.94	0.71	43.87	21.82
Restoration of Shoreline Element						
Vacation Island NW	1.97	62.97	30.03	0.28	18.46	7.16
Upland Habitat and Preserve Expansion Element						
Fiesta Island Sites	3.07	63.35	35.15	0.28	19.74	7.81
Bicycle and Pedestrian Improvements Element						
Ocean Beach Bike Path	1.48	21.73	15.14	0.07	12.00	3.75
Restoration of Seawall Bulkhead Element						
Access Improvements	2.43	21.76	20.59	0.04	7.03	3.76
Maximum Daily Emissions	**21.79**	**301.05**	**227.85**	**1.38**	**101.10**	**44.30**
City Threshold	*137*	*250*	*550*	*250*	*100*	*67*
Threshold Exceeded?	**No**	**Yes**	**No**	**No**	**Yes**	**No**

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; CalEEMod = California Emissions Estimator Model.
See Appendix B of Appendix L for complete results.

[4] For the purpose of this analysis, the projects considered the "most intensive" are the projects with the highest NO_X and PM_{10} emissions because these pollutants are closest to the SDAPCD threshold.

The values shown are the maximum summer or winter daily emissions results from CalEEMod.

As shown in Table 4.1-5, estimated maximum daily emissions from the worst-case scenario from concurrent component implementation would not exceed the City construction thresholds for VOCs, CO, SO_x, or $PM_{2.5}$. However, maximum daily emissions would exceed the City construction thresholds for NO_x and PM_{10}.

As discussed in Section 2.4.2.1, Construction, within Appendix L, the Air Quality Technical Report, as a realistic-case and conservative scenario, it is anticipated that the number of component construction activities that would be implemented concurrently (i.e., within the same day) is one component from each Program element, except for the Upland Habitat and Preserve Expansion Element (i.e., four projects). Upland Habitat and Preserve Expansion Element Fiesta Island Sites components would not overlap with the Wetland and Water Quality Improvements Element North Fiesta Island component because of their proximity and coordination of staging area access, haul road access, and the City Annual Beach Area Construction Restriction. As such, the Upland Habitat and Preserve Expansion Element is not included in this scenario. For this scenario, the components with the highest NO_x and PM_{10} emissions were chosen from the other four Program elements being analyzed in this EIR (refer to Chapter 3, Project Description).

Table 4.1-6 presents the estimated maximum unmitigated daily construction emissions generated during implementation of the four most intensive concurrent components (realistic-case scenario) and compares estimated total daily emissions to the City screening-level thresholds.

Table 4.1-6
Estimated Maximum Daily Construction Criteria Air Pollutant Emissions – Realistic-Case Scenario from Concurrent Component Implementation – Unmitigated

Program Element Components	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per day					
Wetland and Water Quality Improvements Element						
North Fiesta Island	12.84	131.24	126.94	0.71	43.88	21.83
Restoration of Shoreline Element						
Vacation Island NW	1.97	62.97	30.03	0.28	18.46	7.16
Bicycle and Pedestrian Improvements Element						
Ocean Beach Bike Path	1.48	21.73	15.14	0.07	12.00	3.75
Restoration of Seawall Bulkhead Element						
Access Improvements	2.43	21.76	20.59	0.04	7.03	3.76

Table 4.1-6
Estimated Maximum Daily Construction Criteria Air Pollutant Emissions – Realistic-Case Scenario from Concurrent Component Implementation – Unmitigated

Program Element Components	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per day					
Maximum Daily Emissions	**18.72**	**237.70**	**192.70**	**1.10**	**81.36**	**37.49**
City Threshold	*137*	*250*	*550*	*250*	*100*	*67*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; CalEEMod = California Emissions Estimator Model.
See Appendix B of Appendix L for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod.

As shown in Table 4.1-6, estimated maximum daily emissions from the realistic-case scenario from concurrent component implementation would not exceed the City construction thresholds for VOCs, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$ and would not require mitigation. However, as previously discussed, the worst-case scenario from concurrent component implementation would be above City thresholds for NO_x and $PM_{10,}$ absent mitigation.

Program construction activities could take place at multiple locations concurrently. Air pollutant emissions would vary day to day as a result of how many construction activities are occurring at once. While the realistic-case scenario demonstrates that a certain combination of components may result in emissions below City thresholds for all criteria air pollutants, other combinations of projects, including the worst-case scenario, could result in emissions that exceed the City thresholds without mitigation. Construction of an individual component would not exceed any thresholds and would be **less than significant**. As shown in Table 4.1-5, maximum daily air pollutant emissions would exceed the City's NO_x and PM_{10} thresholds if the most intensive component of each Program element occurred concurrently.[5] The combined emissions of the five concurrent components, which represent the maximum daily construction scenario, exceed the City significance thresholds for NO_x and PM_{10} prior to implementation of mitigation. Should this scenario occur, or should other components occur concurrently, significant impacts related to NO_x and PM_{10} emissions could be further intensified; therefore, this impact would be **potentially significant** absent mitigation.

[5] This reflects a conservative estimate based on the largest projects from each Program element.

Operational Emissions

Operations and maintenance activities for the Program involves improvements to existing park areas as described in Section 2.4.2.2, Operation, within Appendix L, Air Quality Technical Report. Operations and maintenance activities would be minimal and would be similar to those that occur under existing conditions. In addition, the emissions associated with operation would be much less compared to construction. Because the Program would not result in any new long-term operational activities, there would be no potential air quality impacts associated with operational air pollutant emissions. Impacts would be **less than significant**.

Cumulative Analysis

The SDAB has been designated as a federal nonattainment area for O_3 and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. The poor air quality in the SDAB is the result of cumulative emissions from motor vehicles, off-road equipment, commercial and industrial facilities, and other emission sources. Projects that emit these pollutants or their precursors (i.e., VOCs and NO_x for O_3) potentially contribute to poor air quality. In analyzing cumulative impacts from a project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the CAAQS and NAAQS. If a project does not exceed thresholds and is determined to have less-than-significant project-specific impacts, it may still contribute to a significant cumulative impact on air quality if the emissions from that project, in combination with the emissions from other proposed or reasonably foreseeable future projects, are in excess of established thresholds. However, a project would only be considered to have a significant cumulative impact if that project's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

Regarding short-term construction impacts, the City thresholds of significance are used to determine whether the Program may have a short-term cumulative impact. While it is anticipated that during Program implementation construction of individual components or certain concurrent components would not exceed mass daily emission thresholds and would result in a less-than-significant impact without mitigation, because this analysis evaluates a worst-case scenario, impacts related to the Program's potential to result in a short-term cumulatively considerable contribution to pollutant emissions during construction would be **potentially significant** prior to mitigation.

Additionally, for the SDAB, the RAQS serves as the long-term regional air quality planning document for the purpose of assessing cumulative operational emissions in the basin to ensure the SDAB continues to make progress toward NAAQS- and CAAQS-attainment status. As such, cumulative projects located in the San Diego region would have the potential to result in a cumulative impact to

air quality if, in combination, they would conflict with or obstruct implementation of the RAQS. Similarly, individual projects that are inconsistent with the regional planning documents upon which the RAQS is based would have the potential to result in cumulative operational impacts if they represent development and population increases beyond regional projections.

The SIP and RAQS rely on SANDAG growth projections based on population, vehicle trends, and land use plans developed by the cities and the County as part of the development of their general plans. Therefore, projects that propose development that is consistent with the growth anticipated by local plans would be consistent with the SIP and RAQS and would not be considered to result in cumulatively considerable impacts from operational emissions. The Program involves improvements to existing park areas, and the implementation of the Program would not result in a growth of population or housing, nor would it increase employment above existing conditions. As stated previously, the Program would not result in significant regional growth that is not accounted for within the RAQS. As a result, the Program would not result in a cumulatively considerable contribution to pollutant emissions. Therefore, cumulative impacts would be **less than significant** during operation.

Health Impacts of Other Criteria Air Pollutants

The potential health effects associated with project-generated criteria air pollutant emissions are included as additional information and do not require a separate significance conclusion. A detailed discussion is provided in Appendix L to connect the Program's potential air quality impacts to potential health consequences. In summary, construction and operation of the Program would not result in emissions that would contribute to health effects associated with criteria air pollutants with incorporation of mitigation.

Issue 4: Would the project expose sensitive receptors to substantial pollutant concentrations, including toxic air contaminants (TACs)?

Air quality varies as a direct function of the amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. Air quality problems arise when the rate of pollutant emissions exceeds the rate of dispersion. Reduced visibility, eye irritation, and adverse health impacts upon those persons termed "sensitive receptors" are the most serious hazards of existing air quality conditions in the area. Some land uses are considered more sensitive to changes in air quality than others, depending on the population groups and the activities involved. People most likely to be affected by air pollution, as identified by the City (City of San Diego 2022), include children, the elderly, athletes, and people with cardiovascular and chronic respiratory diseases. As such, sensitive receptors include residences, schools, playgrounds, childcare centers, athletic facilities, long-term healthcare facilities, rehabilitation centers, convalescent centers, and retirement homes. The

Program involves construction activities at a number of existing sites throughout Mission Bay Park, and sensitive receptors include residences adjacent to multiple Program elements.

Toxic Air Contaminants

As described in Section 4.1.1, Existing Conditions, the Program involves construction activities at a number of existing sites throughout Mission Bay Park and sensitive receptors include residences adjacent to multiple Program elements.

Health effects from carcinogenic air toxics are usually described in terms of cancer risk. SDAPCD recommends an incremental cancer risk threshold of 10 in 1 million. "Incremental cancer risk" is the net increased likelihood that a person continuously exposed to concentrations of TACs resulting from a project over a 9-, 30-, and 70-year exposure period will contract cancer based on the use of standard Office of Environmental Health Hazard Assessment risk assessment methodology (OEHHA 2015). In addition, some TACs have noncarcinogenic effects. SDAPCD recommends a Hazard Index of 1 or more for acute (short-term) and chronic (long-term) noncarcinogenic effects. The greatest potential for TAC emissions during construction would be DPM emissions from heavy equipment operations and use of heavy-duty trucks. DPM emissions may cause carcinogenic and/or chronic health effects.

State law has established the framework for California's TAC identification and control program, which is generally more stringent than the federal program and is aimed at TACs that are a problem in California. The state has formally identified more than 200 substances as TACs, including the federal hazardous air pollutants, and has adopted appropriate control measures for sources of these TACs. The following measures are required by state law to reduce DPM emissions:

- Fleet owners of mobile construction equipment are subject to the CARB Regulation for In-Use Off-Road Diesel Vehicles (13 CCR 2449), the purpose of which is to reduce DPM and criteria pollutant emissions from in-use (existing) off-road diesel-fueled vehicles.
- All commercial diesel vehicles are subject to Title 13, Section 2485 of the California Code of Regulations (CCR), limiting engine idling time. Idling of heavy-duty diesel construction equipment and trucks during loading and unloading shall be limited to 5 minutes; electric auxiliary power units should be used whenever possible.

According to the Office of Environmental Health Hazard Assessment, health risk assessments (which determine the exposure of sensitive receptors to toxic emissions) should be based on a 30-year exposure period for the maximally exposed individual resident; however, such assessments should also be limited to the period/duration of activities associated with a project. The duration of the proposed construction activities would constitute a small percentage of the total 30-year exposure period. The total construction period for the Program is unknown at this time, but the estimated

construction durations of each Program element are provided in Appendix A of Appendix L, and of relatively short duration. After construction, all construction-related TAC emissions would cease. In addition, because of the programmatic nature of the Program elements, emissions would not be concentrated in any one work area for the entire construction duration, but rather spread out over the entire Improvement Zone, minimizing potential impacts. Due to this relatively short period of exposure and minimal particulate emissions on site, TACs generated during construction would not be expected to result in concentrations causing significant health risks.

The Program involves improvements to existing park areas with no change in park operations compared to the existing conditions. No residual TAC emissions and corresponding cancer health risk are anticipated after construction, and no long-term sources of TAC emissions are anticipated during operation of the Program. CARB has published the Air Quality and Land Use Handbook: A Community Health Perspective, which identifies certain types of facilities or sources that may emit substantial quantities of TACs and therefore could conflict with sensitive land uses, such as "schools and schoolyards, parks and playgrounds, daycare centers, nursing homes, hospitals, and residential communities" (CARB 2005). The Air Quality and Land Use Handbook is a guide for siting of new sensitive land uses, and CARB recommends that sensitive receptors not be located downwind of or close to such sources to avoid potential health hazards. The enumerated facilities or sources include the following: high-traffic freeways and roads, distribution centers, railyards, ports, refineries, chrome plating facilities, dry cleaners, and large gas-dispensing facilities. The Program would not include any of the above-listed land uses associated with generation of TAC emissions.

Furthermore, Division 7, Off-Site Development Impact Regulations, Section 142.0710, states the following: "Air contaminants including smoke, charred paper, dust, soot, grime, carbon, noxious acids, toxic fumes, gases, odors, and particulate matter, or any emissions that endanger human health, cause damage to vegetation or property, or cause soiling shall not be permitted to emanate beyond the boundaries of the premises upon which the use emitting the contaminants is located. The Program would not result in the generation of smoke, charred paper, soot, grime, carbon, noxious acids, or toxic fumes. Criteria air pollutants, including particulate matter, during construction of the Program would be below City thresholds of significance for each individual component, and therefore would not represent a release of substantial quantities of air contaminants beyond the component boundaries.

For the reasons previously described, the Program would not result in substantial exposure of sensitive receptors to TACs in the vicinity of the Program site during construction or operation, and impacts would be **less than significant**.

Health Impacts of Carbon Monoxide

Mobile-source impacts occur on two basic scales of motion. Regionally, Program-related travel would add to regional trip generation and increase the vehicle miles traveled within the local airshed and the SDAB. Locally, Program-related traffic would be added to the City's roadway system. If such traffic occurs during periods of poor atmospheric ventilation, consists of a large number of vehicles "cold-started" and operating at pollution-inefficient speeds, and operates on roadways already crowded with non-Program traffic, there is a potential for the formation of microscale CO "hotspots" in the area immediately around points of congested traffic. Because of continued improvement in mobile emissions at a rate faster than the rate of vehicle growth and/or congestion, the potential for CO hotspots in the SDAB is steadily decreasing.

During construction, the Program would result in CO emissions from construction worker vehicles, haul trucks, and off-road equipment. CCR Title 40, Section 93.123(c)(5), Procedures for Determining Localized CO, PM_{10}, and $PM_{2.5}$ Concentrations (hotspot analysis), states that "CO, PM_{10}, and $PM_{2.5}$ hot-spot analyses are not required to consider construction-related activities, which cause temporary increases in emissions. Temporary increases are defined as those that occur only during the construction phase and last 5 years or less at any individual site." Since construction activities would be temporary, a project-level construction hotspot analysis would not be required.

The City's CO hotspots screening guidance was followed to determine whether a project would require a site-specific hotspot analysis (City of San Diego 2022). The City recommends that a quantitative analysis of CO hotspots be performed if a proposed development causes a six-lane or four-lane roadway to deteriorate to a Level of Service E or worse, causes a six-lane roadway to drop to Level of Service F, or if a proposed development is within 400 feet of a sensitive receptor and the Level of Service is D or worse. The Program involves improvements to existing park areas with no change in park operations compared to the existing conditions. During operations, maintenance activities would be minimal and would be similar to those that occur under existing conditions. Therefore, the Program operations would not exceed the City's screening guidance for CO hotspots. Therefore, a CO hotspot analysis is not needed, and the Program would have a **less-than-significant impact**.

Issue 5: Would the project create objectionable odors affecting a substantial number of people?

Section 41700 of the California Health and Safety Code and SDAPCD Rule 51 (Public Nuisance), prohibit emissions from any source whatsoever 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 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 (Public Nuisance) also prohibits emission of any material that causes nuisance to a considerable number of persons 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 very subjective by the nature of odors themselves and due to the fact that their measurements are difficult to quantify. As a result, this guideline is qualitative and will focus on the existing and potential surrounding uses and location of sensitive receptors.

The occurrence and severity of potential odor impacts depends on numerous factors: the nature, frequency, and intensity of the source; the wind speeds and direction; and the sensitivity of receiving location each contribute to the intensity of the impact. Per the City's Significance Determination Thresholds (2022), projects that involve offensive odors may be a nuisance to neighboring uses, including businesses, residences, sensitive receptors, and public areas. Analysis of potential odor impacts should be conducted for sources of odorous emissions, and receptors located near odorous sources.

Construction

Odors would be potentially generated from vehicles and equipment exhaust emissions during construction of the Program elements. Potential odors produced during proposed construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from a project site and generally occur at magnitudes that would not affect substantial numbers of people. Therefore, impacts associated with odors during construction would be **less than significant.**

Operation

Land uses and industrial operations associated with odor complaints include agricultural uses, wastewater treatment plants, food-processing plants, chemical plants, composting, refineries, landfills, dairies, and fiberglass molding (SCAQMD 1993). The Program does not propose any uses associated with odor complaints. Therefore, Program operations would result in an odor impact that would be **less than significant**.

Issue 6: Would the project result in a substantial alteration of air movement in the area of the project?

The Improvement Zone encompasses the 4,235-acre Mission Bay Park along with additional areas in all directions. The Improvement Zone is surrounded by existing residential developments, open space, parkland, and the ocean. Given the Program's location within an already developed area,

the improvements associated with the Program, improvements to existing park areas that would not substantially change topography, would not substantially alter air movement in the area as discussed below.

This issue of alteration of air movement is usually associated with placement of tall structures in proximity that can result in tunneling of air movement in an area that was previously unobstructed. This typically occurs in developed urban areas with tall buildings that create a wind tunnel effect. In the case of the Program, the improvements would not include tall structures in proximity resulting in tunneling of air movement. The nearby open space, parkland, and ocean, along with the surrounding residential developments, help to maintain natural airflow patterns.

In summary, the Program would not significantly affect air movement in the area, as it does not propose any buildings or structures that would contribute to the natural air circulation in the region. Therefore, the Program would result in an impact that would be **less than significant**.

4.1.5 MITIGATION FRAMEWORK

To reduce the potential for criteria air pollutants, specifically NO_x and PM_{10} emissions as a result of construction of multiple Program elements concurrently, the applicant shall implement the following mitigation measures (MMs):

MM-AQ-1: **Construction Off-Road Equipment Exhaust Minimization.** Prior to the issuance of any construction or development permit or award of construction contract, the City of San Diego (City) Engineering & Capital Projects Department (ECP) or its designee shall ensure that all 50-horsepower or greater diesel-powered off-road construction equipment are powered with California Air Resources Board (CARB)-certified Tier 4 Final engines or better.

An exemption from this requirement may be granted by the City ECP if (1) the City ECP documents equipment with Tier 4 Final engines are not reasonably available, and (2) the required corresponding reductions in criteria air pollutant emissions can be achieved for the project from other combinations of construction equipment. Before an exemption may be granted, the City ECP shall (1) demonstrate that at least three construction fleet owners/operators in San Diego County were contacted and that those owners/operators confirmed Tier 4 Final equipment could not be located within San Diego County during the desired construction schedule, and (2) the City ECP shall provide evidence to Mitigation Monitoring Coordination (MMC) that the proposed replacement equipment has been evaluated using California Emissions Estimator Model (CalEEMod) or other industry standard emission estimation method, and

documentation has been provided to MMC to confirm that necessary project-generated emissions reductions are achieved.

MM-AQ-2: **Construction Dust Control.** The City of San Diego Engineering & Capital Projects Department (ECP) or its designee shall provide evidence to Mitigation Monitoring Coordination (MMC) that construction dust control practices beyond the requirements of San Diego Air Pollution Control District (SDAPCD) Rule 55, Fugitive Dust Control, would be employed to reduce fugitive dust emissions, including watering of the active sites three (3) times per day depending on weather conditions.

4.1.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Issue 1: Conflicts with Air Quality Plan

The Program would not exceed City thresholds or result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations with the incorporation of MM-AQ-1 and MM-AQ-2 (as determined to be necessary). Therefore, this impact is **less than significant with mitigation**.

Issues 2 and 3: Air Quality Standards & Particulate Matter

Construction Emissions

Table 4.1-7 presents the estimated maximum mitigated daily construction emissions generated during construction of the worst-case scenario of concurrent components determined to represent the maximum daily capacity. Estimated mitigated emissions presented in Table 4.1-7 assume implementation of MM-AQ-1 and MM-AQ-2, which assumes that all off-road equipment with engines rated at 50 horsepower or greater will meet Tier 4 Final emission standards, and construction dust control practices would be employed to reduce fugitive dust emissions, including watering of the active sites three times per day.

Table 4.1-7
Estimated Maximum Daily Construction Criteria Air Pollutant Emissions – Worst-Case Scenario from Concurrent Component Implementation – Mitigated

Program Element Components	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per day					
Wetland and Water Quality Improvements Element						
North Fiesta Island	5.53	60.96	146.24	0.71	17.48	8.41

Table 4.1-7
Estimated Maximum Daily Construction Criteria Air Pollutant Emissions – Worst-Case Scenario from Concurrent Component Implementation – Mitigated

Program Element Components	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per day					
Restoration of Shoreline Element						
Vacation Island NW	1.11	54.41	29.82	0.28	13.93	4.74
Upland Habitat and Preserve Expansion Element						
Fiesta Island Sites	1.30	46.36	42.72	0.28	13.59	4.52
Bicycle and Pedestrian Improvements Element						
Ocean Beach Bike Path	0.75	13.73	14.72	0.07	11.63	2.15
Restoration of Seawall Bulkhead Element						
Access Improvements	0.90	7.91	19.94	0.04	2.66	1.37
Maximum Daily Emissions	**9.59**	**183.37**	**253.44**	**1.38**	**59.29**	**21.19**
City Threshold	*137*	*250*	*550*	*250*	*100*	*67*
Threshold Exceeded?	**No**	**No**	**No**	**No**	**No**	**No**

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; CalEEMod = California Emissions Estimator Model.
See Appendix B of Appendix L for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod.
The values shown include the reduced emissions with incorporation of MM-AQ-1 and MM-AQ-2.

As shown in Table 4.1-7, after implementation of MM-AQ-1 and MM-AQ-2, estimated maximum daily worst-case construction emissions would not exceed the City construction thresholds for VOCs, NO_x, CO, SO_x, PM_{10}, or $PM_{2.5}$. Thus, impacts would be **less than significant with mitigation** incorporated.

Additionally, a less intensive and more realistic combination of components would normally represent NO_x and PM_{10} emissions far below the City screening thresholds, as shown in the realistic-case scenario above in Table 4.1-5. The Program would also include components in various locations around the Improvement Zone and would not represent a localized source of significant emissions. As such, the incorporation of MM-AQ-1 and MM-AQ-2 would ensure that any combination of concurrent construction components would be below the City's thresholds of significance.

Table 4.1-8 presents the criteria air pollutant emissions of all Program components with incorporation of MM-AQ-1 and MM-AQ-2.

Table 4.1-8
Estimated Maximum Daily Construction Criteria Air Pollutant Emissions by Component – Mitigated

Program Element Components	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per day					
Wetland and Water Quality Improvements Element						
North Fiesta Island	5.53	60.96	146.24	0.71	17.48	8.41
Tecolote Creek and Fiesta Island Causeway	1.56	13.08	59.72	0.11	13.84	7.04
Cudahy Creek	5.30	54.54	142.24	0.69	12.08	6.02
Restoration of Shoreline Element						
Vacation Island NW	1.11	54.41	29.82	0.28	13.93	4.74
Vacation Island NE – Ski Beach	0.53	24.04	11.91	0.12	5.00	1.51
Vacation Island NE – W of Ingraham	4.36	55.60	58.03	0.69	3.72	2.43
Vacation Island SW	4.61	56.64	58.03	0.70	3.72	2.43
Ventura Cove Park	4.49	62.56	58.06	0.72	3.73	2.44
Crown Point	0.74	4.82	24.26	0.04	2.95	1.56
West Sail Bay	0.70	13.27	21.88	0.08	7.49	3.40
Bonita Cove	0.65	9.68	13.29	0.05	2.75	1.40
Bahia Point	3.36	49.66	45.89	0.56	3.59	2.21
Upland Habitat and Preserve Expansion Element						
Fiesta Island Sites	1.30	46.36	42.72	0.28	13.59	4.52
Sea World Drive/San Diego River Sites	0.40	7.46	16.17	0.06	6.58	3.10
Bicycle and Pedestrian Improvements Element						
Rose Creek Bike Path	0.83	8.23	12.63	0.04	5.01	1.36
Fiesta Island Causeway Path	0.60	4.42	13.10	0.02	2.64	1.36
Ocean Beach Bike Path	0.75	13.73	14.72	0.07	11.63	2.15
Fiesta Island Causeway Path	0.60	4.42	13.10	0.02	2.64	1.36

Table 4.1-8
Estimated Maximum Daily Construction Criteria Air Pollutant Emissions by Component – Mitigated

Program Element Components	VOC	NO_x	CO	SO_x	PM_{10}	$PM_{2.5}$
	Pounds per day					
Restoration of Seawall Bulkhead Element						
Seawall Construction (Replacement Segments A and B; New Segment C)	0.75	6.61	12.03	0.03	3.18	1.37
Access Improvements (Stairs, ADA Ramps, Driveway)	0.90	7.91	19.94	0.04	2.66	1.37

Notes: VOC = volatile organic compound; NO_x = oxides of nitrogen; CO = carbon monoxide; SO_x = sulfur oxides; PM_{10} = coarse particulate matter; $PM_{2.5}$ = fine particulate matter; CalEEMod = California Emissions Estimator Model.
See Appendix B of Appendix L for complete results.
The values shown are the maximum summer or winter daily emissions results from CalEEMod.
The values shown include the reduced emissions with incorporation of MM-AQ-1 and MM-AQ-2.

Furthermore, cumulative impacts would be **less than significant with mitigation** during construction.

Cumulative Analysis

Regarding short-term construction impacts, the City thresholds of significance are used to determine whether the Program may have a short-term cumulative impact. As shown in Table 4.1-7, the worst-case scenario of concurrent component implementation would not exceed any City threshold during construction with incorporation of MM-AQ-1 and MM-AQ-2. Therefore, cumulative impacts during construction would be **less than significant with mitigation**.

Issue 4: Substantial Pollutant Concentrations

Impacts would remain **less than significant**.

Issue 5: Odors

Impacts would remain **less than significant**.

Issue 6: Alteration of Air Movement

Impacts would remain **less than significant**.

4.2 BIOLOGICAL RESOURCES

This section describes the existing biological resource conditions of the Mission Bay Park Improvements Program (Program) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Program. The analysis in this section is supported by the findings from the Biological Resources Technical Report (BRTR), which provides a detailed overview of biological resources within Mission Bay and Program component areas (Appendix M). The BRTR also contains the list of references used in this section (Appendix M).

4.2.1 EXISTING CONDITIONS

The BRTR assessed biological resources within a defined Biological Study Area (BSA) consisting of the 4,387-acre Program area including Mission Bay and the San Diego River. The BSA, Program area, and Mission Bay Park Improvement Zone (Improvement Zone) represent the same areas. Between October 2018 and July 2019, baseline biological surveys conducted within the BSA included vegetation mapping and general biological reconnaissance surveys, special-status plant surveys, and focused surveys for California gnatcatcher (*Polioptila californica*), California least tern (CLT; *Sternula antillarum browni)*, western snowy plover (WSP; *Anarhynchus [formerly Charadrius] nivosus nivosus*), light-footed Ridgway's rail (LFRR; *Rallus obsoletus levipes*), Belding's savannah sparrow (BSS; *Passerculus sandwichensis beldingi*), and western burrowing owl (BUOW; *Athene cunicularia*). In 2019, an aquatic resources delineation was conducted within the BSA. In 2024, focused surveys for least Bell's vireo (LBV; *Vireo bellii pusillus*) and southwestern willow flycatcher (*Empidonax traillii extimus*) within the BSA, and an additional vegetation mapping effort was conducted within the component areas in order to confirm and/or adjust the conclusions made during previous site visits. In 2025, Schaefer Ecological Solutions conducted an aquatic resources delineation verification. All biological surveys were conducted in accordance with the City's Guidelines for Conducting Biological Surveys if applicable (City of San Diego 2018c); state or federal focused survey protocols were followed when appropriate. Focused surveys were conducted within suitable habitat within the BSA. Additional species observations and nesting locations were provided by City of San Diego Parks and Recreation Department.

A total of 21 vegetation communities and/or land cover types, including City-defined wetlands (marine habitats, open water, freshwater marsh, salt marsh, riparian scrub, disturbed wetland and non-vegetation channel or floodway), upland habitats (Tier I – southern foredune, Tier II – coastal sage scrub) and Tier IV disturbed/developed lands, were observed within the BSA. Portions of the BSA support aquatic resources under the jurisdiction of the U.S. Army Corps of Engineers, Regional Water Quality Control Board, California Department of Fish and Wildlife, and California Coastal Commission. The following special-status plant species were detected within the BSA: Nuttall's lotus (*Lotus nuttallianus)*, salt marsh bird's beak (*Chloropyron maritimum* ssp. *maritimum*), San Diego barrel

cactus (*Ferocactus viridescens*), Palmer's Frankenia (*Frankenia palmeri*), beach goldenaster (*Heterotheca sessiliflora* ssp. *sessiliflora*), decumbent goldenbush (*Isocoma menziesii* var. *decumbens*), San Diego marsh-elder (*Iva hayesiana*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), coast woolly-heads (*Nemacaulis denudata* var. *denudata*), and estuary seablite (*Suaeda esteroa*). Additional special-status plant species have a high or moderate potential to occur in the BSA. The following potential special-status wildlife species were detected within the BSA: coastal California gnatcatcher (CAGN), California least tern, western snowy plover, BSS, western burrowing owl, Cooper's hawk (*Accipiter cooperii*), brant (*Branta bernicla*), northern harrier (*Circus hudsonius*), reddish egret (*Egretta rufescens*), white-tailed kite (*Elanus leucurus*), California horned lark (*Eremophila alpestris actia*), American peregrine falcon (*Falco peregrinus anatum*), Long-billed curlew (*Numenius americanus*), osprey (*Pandion haliaetus*), California brown pelican (*Pelecanus occidentalis californicus*), white-faced ibis (*Plegadis chihi*), elegant tern (*Thalasseus elegans*), yellow warbler (*Setophaga petechia*). Additional special-status wildlife species have a high or moderate potential to occur in the BSA. The BSA serves as an important regional and local migration corridor for wildlife movement, particularly as a migratory stopover point of the Pacific Flyway. The BSA also includes portions of the Multiple Species Conservation Program (MSCP) Subarea Plan (SAP) Multi-Habitat Planning Area (MHPA).

The Program has been designed to comply with the MSCP SAP, including MHPA Land Use Adjacency Guidelines (LUAGs) and Area Specific Management Directives (ASMDs), Mission Bay Master Plan (MBMP) and Mission Bay Natural Resources Management Plan (NRMP). In accordance with the Program Implementation Framework, as future Program components are reviewed during subsequent environmental analysis, consistency with each applicable MSCP SAP and NRMP policy will be confirmed prior to subsequent Program approval.

4.2.2 RELEVANT PLANS, POLICIES, AND ORDINANCES

Federal

Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS), National Oceanic and Atmospheric Administration (NOAA), and National Marine Fisheries Service. This legislation is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend and provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. Under provisions of Section 9(a)(1)(B) of FESA, it is unlawful to "take" any listed species. "Take" is defined in Section 3(19) of FESA as, "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." FESA provides for designation of critical habitat for species designated as endangered, defined in Section 3(5)(A) as specific areas within the

geographical range occupied by a species where physical or biological features "essential to the conservation of the species" are found and "which may require special management considerations or protection." Critical Habitat may also include areas outside the current geographical area occupied by the species that are nonetheless "essential for the conservation of the species."

The FESA allows for the issuance of "incidental take" permits for listed species under Section 7, which is generally available for components that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans (HCPs) on private property without any other federal agency involvement. Incidental take is defined as "take that results from, but is not the purpose of, carrying out an otherwise lawful activity" (Title 50 Code of Federal Regulations [CFR] 17.22 and 17.32).

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the take of any migratory bird or any part, nest, or eggs of any such bird. Under the MBTA, "take" is defined as pursue, hunt, shoot, wound, kill trap, capture, or collect, or any attempt to carry out these activities (16 USC 703 et seq.). The number of bird species covered by the MBTA is extensive; the species are listed in Title 50 of the CFR, Part 10.13. The regulatory definition of "migratory bird" is broad and includes any mutation or hybrid of a listed species, and also includes any part, egg, or nest of such birds (50 CFR 10.12). The MBTA, which is enforced by USFWS, makes it unlawful "by any means or in any manner, to pursue, hunt, take, capture, [or] kill" any migratory bird or attempt such actions, except as permitted by regulation. The applicable regulations prohibit the take, possession, import, export, transport, sale, purchase, barter, or offering of these activities, except under a valid permit or as permitted in the implementing regulations (50 CFR 21.11). Additionally, Executive Order 13186, "Responsibilities of Federal Agencies to Protect Migratory Birds," requires that any component with federal involvement address impacts of federal actions on migratory birds with the purpose of promoting conservation of migratory bird populations (66 FR 3853–3856). The Executive Order requires federal agencies to work with USFWS to develop a memorandum of understanding. USFWS reviews actions that might affect these species.

Currently, birds are considered to be nesting under the MBTA only when there are viable eggs or chicks, which are dependent on the nest. Local implementation of the MBTA typically involves a qualified biologist conducting a nesting bird survey prior to construction activities between February 1 and September 15. Such surveys are required in all construction areas where natural or ornamental trees, shrubs, and ground cover may provide suitable nesting habitat for protected species. A nest avoidance buffer, as determined by the qualified biologist, shall be established and serve to protect active nests from direct and indirect disturbance until breeding activities have been completed.

Clean Water Act – Section 404

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Under Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) has the authority to regulate activities that could discharge fill or dredge material or otherwise adversely modify wetlands or other waters of the United States. The USACE implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no-net-loss of wetland values or function.

The definition of waters of the United States establishes the geographic scope for authority under Section 404 of the CWA; however, the CWA does not specifically define waters of the United States, leaving the definition open to statutory interpretation and agency rulemaking. Under the U.S. Environmental Protection Agency's current waters of the United States definition, a "waters of the United States" includes traditional navigable waters, territorial seas, interstate waters, impoundments, and certain tributaries, wetlands, and other features that meet a "relatively permanent" standard. The relatively permanent standard generally requires standing or continuously flowing water, which may be seasonally limited. Excluded from waters of the United States are features that support surface flows only in direct response to precipitation.

The term "wetlands" (a subset of waters of the United States) is defined in 33 CFR, Section 328.3(c)(16), as "areas that are inundated or saturated by surface or ground water 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. Wetlands generally include swamps, marshes, bogs, and similar areas." In the absence of wetlands, the limits of USACE jurisdiction in non-tidal waters, such as intermittent streams, extend to the "ordinary high water mark," which is defined in 33 CFR 328.3(c)(7) as "that line on the shore established by the fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas."

Sections 9 and 10 of the Rivers and Harbors Act

Section 9 of the Rivers and Harbors Act prohibits the construction of any bridge, dam, dike or causeway over or in navigable waterways of the United States without Congressional approval. Administration of Section 9 has been delegated to the U.S. Coast Guard. Consultation with the U.S. Coast Guard may be necessary to determine if a Section 9 permit would be required under the Rivers and Harbors Act.

Section 10 of the Rivers and Harbors Act requires that permits be obtained from USACE in navigable waters of the United States for all structures such as rip-rap and activities such as dredging. Navigable

waters are defined as those subject to the ebb and flow of the tide and susceptible to use in their natural condition or by reasonable improvements as means of interstate transport or foreign commerce. USACE grants or denies Section 10 permits based on the effects on navigation. Most components covered under this Act are also covered under Section 404 of the CWA.

Magnuson–Stevens Fishery Conservation and Management Act

The Magnuson–Stevens Fishery Conservation and Management Act (16 USC 1801−1884) of 1976, as amended in 1996 and reauthorized in 2007 (Magnuson–Stevens Act), is intended to protect fisheries resources and fishing activities within 200 miles of shore. The amended law, also known as the Sustainable Fisheries Act (Public Law 104-297), requires all federal agencies to consult with the Secretary of Commerce on proposed projects authorized, funded, or undertaken by that agency that may adversely affect Essential Fish Habitat (EFH). The main purpose of the EFH provisions is to avoid loss of fisheries due to disturbance and degradation of habitat. EFH is regulated under the Magnuson–Stevens Act, protecting waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (16 USC 1801 et seq.). Substrates that are considered include sediment, hard bottom, structures underlying waters, and associated biological communities.

Congress defined EFH to mean those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity. In 2002, the National Marine Fisheries Service (NMFS) further clarified EFH with the following definitions (50 CFR 600.05–600.930):

- "Waters" include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate.
- "Substrate" includes sediment, hard bottom, structures underlying the waters, and associated biological communities.
- "Necessary" means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and
- "Spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle.

The entire coastal region of California, including Mission Bay (the Project Area), is designated as EFH in the Pacific Coast Groundfish Fishery Management Plan and Coastal Pelagic Species Fisheries Management Plan (NOAA 2025; PFMC 2024a, 2024b).

Marine Mammal Protection Act

All marine mammals are afforded protection under the Marine Mammal Protection Act (16 USC Section 1361 et. seq.). With limited exception, the Marine Mammal Protection Act makes it illegal to "take" a marine mammal without authorization granted by National Marine Fisheries Service. "Take"

is defined as harassing, hunting, capturing, or killing, or attempting to harass, hunt, capture, or kill any marine mammal. "Harassment" is defined as pursuit, torment, or annoyance, which has the potential to injure a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering. Take authorization must be granted by the National Marine Fisheries Service.

Coastal Zone Management Act of 1972

The Coastal Zone Management Act of 1972 (16 USC Sections 1451 through 1464, Chapter 33) is administered by NOAA's Office of Ocean and Resource Management and was established as a national policy to preserve, protect, develop, and – where possible – enhance or restore the coastal zone in the United States. The federal consistency provision, Section 307 of the Coastal Zone Management Act, encourages states to join the Coastal Zone Management Program, which takes a comprehensive approach to coastal resource management by balancing the competing and/or conflicting demands of coastal resource use, economic development, and conservation and allows states to issue the applicable permits. California has a federally approved Coastal Zone Management Program, and the Coastal Zone Management Act is administered by the California Coastal Commission (CCC). Therefore, the Coastal Zone Management Program and permit requirements are discussed further in the California Coastal Act section below.

State

California Environmental Quality Act

The California Environmental Quality Act (CEQA) requires identification of a project's potentially significant impacts on biological resources and feasible mitigation measures and alternatives that could avoid or reduce significant impacts. CEQA Guidelines Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" (14 California Code of Regulations [CCR] 15000 et seq.). A rare animal or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c). CEQA also requires identification of a project's potentially significant impacts on

riparian habitats (such as wetlands, bays, estuaries, and marshes) and other sensitive natural communities, including habitats occupied by endangered, rare, and threatened species.

California Coastal Act

The CCC was established by voter initiative in 1972 and was made permanent by the California Legislature through the adoption of the California Coastal Act (CCA) of 1976 (California Public Resources Code Section 30000 et seq.). The CCC, in partnership with coastal cities and counties, plans and regulates the use of land and water in the coastal zone. Under the CCA, cities and counties are responsible for preparing local coastal programs in order to obtain authority to issue coastal development permits for projects within their jurisdiction. Local coastal programs consist of land use plans, zoning ordinances, zoning maps, and other implementing actions that conform to the policies of the CCA. Until an agency has a fully certified local coastal program, the CCC is responsible for issuing coastal development permits.

Under the CCA Section 30107.5, environmentally sensitive habitat areas are areas within the coastal zone that are "designated based on the presence of rare habitats or areas that support populations of rare, sensitive, or especially valuable species or habitats." In addition, the CCC regulates impacts to coastal wetlands defined in Section 30121 of the CCA as, "lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens." The CCA requires that most development avoid and buffer coastal wetland resources in accordance with Sections 301231 and 30233, including limiting the filling of wetlands to certain allowable uses.

The BSA is located entirely within the coastal zone.

California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA; California Fish and Game Code [CFGC], Section 2050 et seq.), which prohibits the "take" of plant and animal species designated by the Fish and Game Commission as endangered or threatened in the State of California. Under CESA Section 86, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

CESA Sections 2080 through 2085 address the taking of threatened, endangered, or candidate species by stating, "No person shall import into this state, export out of this state, or take, possess, purchase,

or sell within this state, any species, or any part or product thereof, that the Commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant Protection Act (CFGC, Sections 1900–1913), or the California Desert Native Plants Act (Food and Agricultural Code, Section 80001)." Take authorization for otherwise lawful activities may be obtained from CDFW under Section 2081 of the CFGC.

California Fish and Game Code

According to Sections 3511, 4700, 5050, and 5515 of the CFGC, which regulate birds, mammals, reptiles and amphibian, and fish, respectively, a "fully protected" species may not be taken or possessed without a permit from the CFGC, and, with few exceptions, take of these species is prohibited.

According to Section 3503, it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 states that it is unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds of prey) or to take, possess, or destroy the nest or eggs of any such bird except as otherwise provided by this code or any regulation adopted pursuant thereto. Section 3513 states that it is unlawful to take or possess any migratory nongame bird as designated in the MBTA.

The Native Plant Protection Act of 1977 (CFGC, Section 1900 et seq.) gives CDFW authority to designate state endangered, threatened, and rare plants, and provides specific protection measures for identified populations.

CDFW Wetland Regulation

The CDFW exercises jurisdiction over waters of the State under Sections 1600–1616 of the CFGC based on the definition of regulated activity provided in Section 1602 of the CFGC and the definition of a stream provided in Title 14, Section 1.72, of the CCR.

Section 1602 of the CFGC states: "An entity may not substantially divert or obstruct the natural flow of, or substantially change or use any material from the bed, channel, or bank of, any river, stream, or lake, or deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake" without notifying CDFW. Title 14, Section 1.72, of the CCR defines a stream as: "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having a surface or subsurface flow that supports or has supported riparian vegetation." This definition includes a broad range of vegetation communities, including some that do not contain wetland species but are in a riparian landscape position. CDFW jurisdiction typically extends to the outer limit of riparian vegetation, or to the top of bank of an unvegetated stream channel.

Under Section 1603 of the CFGC, upon notification, CDFW "shall determine whether the activity may substantially adversely affect an existing fish and wildlife resource." If such a determination is made, CDFW reaches an agreement with the notifying entity (a Streambed Alteration Agreement) that includes measures to protect the resources CDFW has determined the activity may substantially adversely affect.

In addition, CDFW's Marine Region may advise on projects within tidal waters. Recommended measures may include conducting presence surveys for invasive *Caulerpa* species prior to disturbing aquatic vegetation communities to ensure the species does not spread if detected.

Clean Water Act – Section 401

The State Water Resources Control Board has authority over wetlands through Section 401 of the CWA, as well as the Porter–Cologne Act, CCR Section 3831(k), and California Wetlands Conservation Policy. The CWA requires that an applicant for a Section 404 permit (to discharge dredge or fill material into waters of the United States) first obtain certification from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the State Water Resources Control Board to the nine regional boards. The San Diego Bay Regional Water Quality Control Board (RWQCB) has authority for Section 401 compliance within the BSA. A request for certification is submitted to the regional board at the same time that an application is filed with the USACE.

The State Water Resources Control Board defines a water of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code Section 13050[e]). The State Water Resources Control Board's definition of a water of the state includes the following (SWRCB 2021):

1. Natural wetlands;
2. Wetlands created by modification of a surface water of the state; and
3. Artificial wetlands that meet any of the following criteria:
    - Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    - Specifically identified in a water quality control plan as a wetland or other water of the state;
    - Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or

- Greater than or equal to one acre in size unless the artificial wetland was constructed and is currently used and maintained, primarily for one or more of the following purposes: industrial or municipal wastewater treatment or disposal; settling of sediment; detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial permitting program; treatment of surface waters; agricultural crop irrigation or stock watering; fire suppression; industrial processing or cooling water; active surface mining even if the site is managed for interim wetlands functions and values; log storage; treatment, storage, or distribution of recycled water; maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or fields flooded for rice growing.

All waters of the United States are waters of the state. Wetlands, such as isolated seasonal wetlands, that are not generally considered waters of the United States are considered waters of the state if, "under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation" (SWRCB 2021).

CCC Wetlands Regulation

As described above, the CCC regulates impacts to coastal wetlands defined in Section 30121 of the CCA as, "lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens." The CCA requires that most development avoid and buffer coastal wetland resources in accordance with Sections 301231 and 30233, including limiting the filling of wetlands to certain allowable uses.

Local Regulations and Conservation Plans

County of San Diego Multiple Species Conservation Program (MSCP)

The City is a participant in the regional County San Diego MSCP, a cooperative federal, state, and local environmental conservation program aimed at preserving San Diego's unique native plants and animals (covered species) comprehensive, regional long-term habitat conservation program designed to provide permit issuance authority for take of covered species to the local regulatory agencies. The MSCP addresses habitat and species conservation within approximately 900 square miles in the southwestern portion of San Diego County. It serves as an approved habitat conservation plan pursuant to an approved Natural Communities Conservation Plan in accordance with the state Natural Communities Conservation Planning Act (County of San Diego 1998). The plan's boundaries extend over multiple

jurisdictions and environments, including regional watersheds and migratory wildlife corridors. The plan also protects the region's diverse native plant and animal species, including those that are threatened and endangered. The MSCP also provides provisions and regulations that accommodate future growth and streamline building regulations while protecting natural resources in the region.

The MSCP identifies 85 plants and animals to be "covered" under the plan (termed Covered Species). Many of these Covered Species are subject to one or more protective designations under state and/or federal law and some are endemic to the County of San Diego. The MSCP seeks to provide adequate habitat in the preserve to maintain ecosystem functions and persistence of extant populations of the 85 Covered Species while also allowing participating landowners "take" of Covered Species on lands located outside of the preserve. The purpose of the MSCP is to address species conservation on a regional level and thereby avoid component-by-component biological mitigation, which tends to fragment habitat.

City of San Diego MSCP Subarea Plan

The City of San Diego MSCP Subarea Plan (City of San Diego 1997) encompasses 206,124 acres within the MSCP SAP area. The proposed Program is located within the Urban area of the SAP. The Urban habitat areas within the MHPA include existing designated open space such as Mission Bay, Tecolote Canyon, Marian Bear Memorial Park, Rose Canyon, San Diego River, the southern slopes along Mission Valley, Carroll and Rattlesnake Canyons, Florida Canyon, Chollas Creek, and a variety of smaller canyon systems. The Southern area includes Otay Mesa, Otay River Valley, and Tijuana Estuary and Tijuana River Valley. The Eastern area includes East Elliott and Mission Trails Regional Park.

The SAP is characterized by urban land uses with approximately three-quarters either built out or retained as open space/park system. Portions of the BSA are located within and adjacent to MHPA boundaries (Figure 4.2-1, Mission Bay Park Improvements Program Overview and Elements Locations). The MHPA is considered an urban preserve that is constrained by existing or approved development and is comprised of habitat linkages connecting several large core areas of habitat. The criteria used to define core and linkage areas involves maintaining ecosystem function and processes, including large animal movement. Each core area is connected to other core areas or to habitat areas outside of the MSCP SAP either through common boundaries or through linkages. Core areas have multiple connections to help ensure that the balance in the ecosystem will be maintained (City of San Diego 1997). Critical habitat linkages between core areas are conserved in a functional manner with a minimum of 75% of the habitat within identified linkages conserved (City of San Diego 1997).

City of San Diego Land Development Code – Environmentally Sensitive Lands (ESL) Regulations and Biology Guidelines

The City of San Diego Development Services Department developed the SDBG presented in the Land Development Manual "to aid in the implementation and interpretation of ESL Regulations, San Diego LDC, Chapter 14, Division 1, Section 143.0101 et seq., and the Open Space Residential (OR-1-2) Zone, Chapter 13, Division 2, Section 131.0201 et seq." (City of San Diego 2018c). The guidelines also provide standards for the determination of impact and mitigation under CEQA and the CCA. Sensitive biological resources, as defined by ESL Regulations, include lands within the MHPA, as discussed in Section 1.3.3 of this report, as well as other lands outside of the MHPA that contain wetlands; vegetation communities classifiable as Tier I, II, IIIA, or IIIB; habitat for rare, endangered, or threatened species; or narrow endemic species. The San Diego Municipal Code ranks upland habitat values by rarity and sensitivity. The most sensitive habitats are Tier I, and the least sensitive are Tier IV. The varying mitigation ratios and requirements that mitigation be either in-tier or in-kind are based on the sensitivity of the habitat being affected.

The City's definition of wetlands is broader than the definition applied by the USACE. According to SDBG (City of San Diego 2018c), City wetlands include areas characterized by one or more of the following conditions:

1. All areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation, including but not limited to salt marsh, brackish marsh, freshwater marsh, riparian forest, oak riparian forest, riparian woodlands, riparian scrub, and vernal pools;
2. Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities because human activities have removed the historic wetland vegetation or catastrophic or recurring natural events or processes have acted to preclude the establishment of wetland vegetation as in the case of salt pannes and mudflats;
3. Areas lacking wetland vegetation communities, hydric soils, and wetland hydrology due to non-permitted filling of previously existing wetlands; or
4. Areas mapped as wetlands on Map C-713 as shown in Chapter 13, Article 2, Division 6 (Sensitive Coastal Overlay Zone).

Per the SDBG, areas that contain wetland vegetation, soils, or hydrology created by human activities in historically non-wetland areas do not qualify as wetlands under the City's definition unless they have been delineated as wetlands by the USACE and/or CDFW (City of San Diego 2018c). Artificially created wetlands consist of the following: wetland vegetation growing in brow ditches and similar drainage structures outside of natural drainage courses, wastewater treatment ponds, stock watering, desiltation

and retention basins, water ponding on landfill surfaces, road ruts created by vehicles, and artificially irrigated areas that would revert to uplands if the irrigation ceased. Previously dredged tidal areas, such as Mission Bay, should be considered wetlands under ESL Regulations (City of San Diego 2018c).

Guidelines that supplement the development regulation requirements described in this section are provided in the San Diego Municipal Code, LDC—Biology Guidelines (City of San Diego 2018c). The Program is located entirely within the Coastal Overlay Zone (COZ), and therefore wetlands within the BSA would require adherence to the COZ wetland buffer regulations (City of San Diego 2018c). According to the SDBG, a wetland buffer is an area surrounding a wetland that helps protect the function and value of the adjacent wetland by reducing physical disturbance, provides a transition zone where one habitat phases into another, and acts to slow flood waters for flood and erosion control, sediment filtration, water purification, and groundwater recharge (City of San Diego 2018c). Within the COZ, wetland buffers should be provided at a minimum of 100 feet wide adjacent to all identified wetlands within the COZ. The width of the buffer may be either increased or decreased as determined on a case-by-case basis, in consultation with the CDFW, USFWS, and the USACE. The width of the buffer is determined by factors such as type and size of development, sensitivity of the wetland resource to edge effects, topography, and the need for upland transition (City of San Diego 2018c). Per ESL Regulations, uses permitted in wetlands within the COZ are limited to aquaculture, wetlands-related scientific research and wetlands-related educational uses; wetland restoration components where the primary purpose is restoration of the habitat; and incidental public service components, where it has been demonstrated that there is no feasible less environmentally damaging location or alternative, and where mitigation measures have been provided to minimize adverse environmental effects. Also per ESL Regulations, permitted uses in wetland buffer areas shall be limited to public access paths, fences, restoration and enhancement activities, and other improvements necessary to protect wetlands. ESL Regulations also lists permitted uses and developmental regulations for steep hillsides, coastal bluffs, coastal beaches, and special flood hazard areas.

City of San Diego General Plan

The proposed component is located in the City of San Diego and therefore is subject to the goals and policies in the City's General Plan. The General Plan was adopted in March 2008 and was most recently amended in July 2024, known as Blueprint SD. The General Plan provides policy guidance to balance the needs of a growing city while enhancing the quality of life for current and future San Diegans. It includes the City of Villages strategy which outlines how the City can enhance its many communities and neighborhoods as growth occurs over time. The General Plan contains 11 elements that provide a comprehensive "blueprint" for the City's growth over the next 20 plus years. As shown in the General Plan land use map (City of San Diego 2024b, Figure LU-2), the component site is located in an area that is designated as Park, Open Space, and Recreation.

Mission Bay Park Master Plan

The component site falls within the boundaries of Mission Bay Park—a regional park that serves the residents of and visitors to San Diego. The Mission Bay Park Master Plan (MBPMP) was adopted on August 2, 1994, and was most recently updated in May 2024 (City of San Diego 2024a). The MBPMP serves as the local coastal program for this area of the City. The proposed component is subject to the goals and recommendations established in the MBPMP, and the proposed component will be incorporated into the MBPMP as an amendment. The MBPMP recommends that the proposed study area should serve regional recreation needs, including guest housing (recreational vehicles and other low cost camping facilities); improve the park's water quality, including creating additional wetlands; facilitate hydrologic improvements to safeguard the viability of marsh areas; provide a waterfront trail, viewing areas, and other passive recreational features to enhance public use of the component area; ensure leaseholds support the Mission Bay recreation use; improve access to recreational uses; and improve play areas for regional recreational needs.

The "WHITEBOOK"

The City of San Diego published The "WHITEBOOK" Standard Specifications for Public Works Construction (City of San Diego 2021a), which includes many standard practices that result in minimization of impacts to biological resources, including biological monitoring, materials suitability, safe construction methods, avian nest protection, tree protection, landscape standards, and stormwater protection measures. The "WHITEBOOK" prescribed measures and standards are incorporated into the Program as Environmental Protocols.

4.2.3 SIGNIFICANCE DETERMINATION THRESHOLDS

This section addresses the direct and indirect impacts to biological resources that would result from implementation of the proposed Program and provides the significance determinations for potential impacts.

Impacts to special-status vegetation communities, plant and wildlife species, and jurisdictional waters, including wetlands, must be quantified and analyzed to determine whether such impacts are significant under CEQA. CEQA Guidelines Section 15064(b) states that an ironclad definition of "significant" effect is not possible, because the significance of an activity may vary with the setting. Appendix G of the CEQA Guidelines, however, does provide "examples of consequences which may be deemed to be a significant effect on the environment" (14 CCR15064[e]). These effects include substantial effects on rare or endangered species of animal or plant or the habitat of the species. Under CEQA Guidelines Section 15065(a), a proposed component may have a significant effect on the environment if the component has the potential to:

(1) Substantially degrade the quality of the environment,

(2) Substantially reduce the habitat of a fish or wildlife species,

(3) Cause a fish or wildlife population to drop below self-sustaining levels,

(4) Threaten to eliminate a plant or animal community,

(5) Reduce the number or restrict the range of a rare or endangered plant or animal, or

(6) Eliminate important examples of a major period of California history or prehistory.

The following are the City's currently adopted Thresholds of Significance (City of San Diego 2022a) for biological resources. Would the proposal result in:

Issue 1: **A substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in the MSCP, VPHCP, or other local or regional plans, policies, or regulations, or by CDFW or U.S. Fish and Wildlife Service (USFWS)?**

Issue 2: **A substantial adverse impact on Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the Biology Guidelines of the Land Development manual or other sensitive natural community identified in local or regional plans, policies, regulations, or by CDFW or USFWS?**

Issue 3: **A substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means?**

Issue 4: **Interfering substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP Plan, or impede the use of native wildlife nursery sites?**

Issue 5: **A conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP plan area or in the surrounding region?**

Issue 6: **Introducing land use within an area adjacent to the MHPA that would result in adverse edge effects?**

Issue 7: **A conflict with any local policies or ordinances protecting biological resources?**

Issue 8: **An introduction of invasive species of plants into natural open space area?**

Lands containing Tier I, II, IIIA, and IIIB habitats (Table 3 from the SDBG) and all wetlands (Tables 2A and 2B from the SDBG) are considered sensitive and declining habitats. As such, impacts to these resources are generally considered significant with the following exceptions (City of San Diego 2018c):

a. Total component upland impacts less than 0.10 acre is not considered significant and do not require mitigation.
b. Project impacts to non-native grasslands totaling less than 1.0 acres that are completely surrounded by existing urban developments are not considered significant and do not require mitigation.
c. Total component wetland impacts less than 0.01 acre are not considered significant and do not require mitigation. This does NOT apply to vernal pools, road pools supporting listed fairy shrimp, or wetlands within the COZ.
d. Mitigation is not required for impacts to non-native grassland habitat when impacted for the purpose of wetland or other native habitat creation.
e. Habitat mitigation is not required for impacts to manufactured slopes or areas that have been planted with native species for the purpose of erosion control. In order to qualify for this exception, substantiation of previous permits and mitigation must be provided. This does not apply to noise or wildlife avoidance mitigation requirements, in described in Appendix I of the SDBG.
f. Removal/control of non-native plants is not considered to constitute a significant habitat impact for which compensatory habitat acquisition, preservation, or creation for the area impacted is required. However, mitigation for indirect impacts such as erosion control or off-site infestation by non-native species may still be required.

Lands designated as Tier IV are not considered to have significant habitat value and impacts to these areas would not be considered significant. Additionally, lands that meet the "artificially created

wetlands in historically non-wetland areas" definition in the SDBG (please see the SDBG for the complete definition), are regulated by the City as upland habitat or land cover.

Impacts to sensitive plant species may also be considered significant based on the rarity and extent of the species impacted. In general, conformance with the Subarea Plan, including provisions to provide habitat mitigation at required ratios and adherence to MSCP SAP Area Specific Management Directives for each species, including verification of conformance prior to approval of program components, would reduce impacts to sensitive plant species covered under the MSCP SAP to a level that is less than significant. For impacts to Narrow Endemic Covered Species and non-Covered Species that are state listed or federally listed and/or have a California Rare Plant Rank (CRPR) of 1B.1, 1B.2, 2B.1, or 2B.2, a case-by-case review is required to determine significance (e.g., potential for impacts to breeding, amount of suitable habitat loss).

Impacts to sensitive wildlife species may also be considered significant based on the rarity and extent of the species impacted. In general, conformance with the Subarea Plan, including provisions to provide habitat mitigation at required ratios and adherence to MSCP SAP Area Specific Management Directives for each MSCP SAP covered species, including verification of conformance prior to approval of program components, would reduce impacts to those MSCP SAP covered sensitive wildlife species to a level that is less than significant. For other species, impacts require a case-by-case review to determine significance.

Impacts on biological resources may be direct, indirect as defined by the City's CEQA Significance Determination Thresholds (City of San Diego 2022a) and described below.

Direct Impacts: A direct impact is a physical change in the environment which is caused by and immediately related to implementation of a Program component and can result in either permanent loss of on-site habitat and the plant and wildlife species that it contains or temporary loss of these resources. Impacts are considered permanent when a habitat or biological resource is impacted and is not restored to the same or higher value habitat within a short time period (i.e., within a year) following an impact, such that the functions of that habitat for plants and wildlife species are reduced in the long term. These impacts may occur due to construction and/or operations and maintenance. Impacts are considered temporary if the habitat impacted is restored, either passively or actively, to a habitat type of similar or higher value in a short period of time following the impact (e.g., revegetation of a wetland or vegetation community following one-time impacts). These impacts may include conversion of existing habitat areas to different habitat types that are more consistent with historical ecology or adapted to climate change conditions. Program elements may also have a beneficial effect on biological resources through habitat restoration activities resulting in a gain of resources (e.g., conversion of existing disturbed areas or open water to high-functioning native

habitats or enhancement of habitat through the removal and control of invasive species). These restoration areas may be credited as mitigation to offset permanent or temporary impacts.

Direct impacts to biological resources would include the following:

- Direct removal of vegetation and habitat during component construction and operational activities by means of excavation, grading, dredging, vegetation clearing/grubbing/crushing;
- Human incursion into sensitive habitats;
- Mortality of sensitive wildlife species from vehicular collision; and
- Destruction or abandonment of nests.

Indirect Impacts: Indirect impacts are reasonably foreseeable effects caused by Program implementation on remaining or adjacent biological resources outside the direct component footprint area, such as downstream effects. Indirect impacts include short-term effects immediately related to Program activities and long-term or chronic effects occurring after implementation as a result of new land uses or conditions. Indirect impacts that would result in loss of area or function of wetlands, Tier I–III uplands, or sensitive species may be considered significant.

Impacts to biological resources can also be cumulatively significant if incremental impacts that wouldn't necessarily be considered significant on their own, when considered together.

4.2.4 IMPACTS ANALYSIS

The Program includes several components which may be constructed independently or together in accordance with the Program's Implementation Framework. The analysis of impacts to biological resources is programmatic and based primarily on the construction footprint identified for each component. These footprints are based on the total area of proposed improvements including grading, infrastructure, staging areas, and maintenance areas. Existing biological resources within these footprints are assumed to be directly impacted by the construction of each component; those impacts to biological resources are identified in the following sections. Potentially significant impacts are identified and mitigation measures are proposed to reduce significant impacts, where feasible. Implementation of several components is expected to provide mitigation in the form of habitat restoration. However, precise comparison of impacts and habitat restoration is not included at this stage due to lack of information regarding the timing of impacts relative to habitat restoration, the precise areas of infrastructure improvements and maintenance that would be excluded from mitigation credit, and mitigation agreements with the resource agencies. These additional details are expected to be included in subsequent approvals, as identified in the Implementation Framework.

Pursuant to the City's Land Development Manual and the municipal separate storm sewer system (MS4) permit issued by the RWQCB, development projects are required to incorporate site design

features, source and discharge control and treatment features, and other best management practices (BMPs) to avoid, minimize, and reduce potential direct and indirect impacts to sensitive biological resources. These measures applicable to the future implementation of the proposed Program have been incorporated as Environmental Protocols to ensure compliance with applicable regulations to reduce potential indirect impacts to sensitive biological resources. These Environmental Protocols are discussed in detail in Section 4.2.6.

Issue 1: Sensitive Species

Would the project have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in the MSCP Subarea Plan (SAP) or other local or regional plans, policies or regulations, or by CDFW or USFWS?

Sensitive Plant Species

Plant species are considered sensitive if they have been listed or proposed for listing by the federal or state government as rare, endangered, or threatened ("listed species"); are listed as a MSCP SAP covered species; and/or have been adopted by the City as narrow endemic. In addition, species with a CRPR 1–2 that do not meet the previously listed criteria are generally considered special-status species; species with a CRPR 3–4 that do not meet the previously listed criteria are evaluated but only considered special-status if local populations are significant. An evaluation of known records (CDFW 2024; CNPS 2025; SDNHM 2025) in the six U.S. Geological Survey 7.5-minute quadrangle search area was conducted to determine which species have been recorded in the program vicinity (within 5 miles of the BSA); California Natural Diversity Database occurrences within the BSA are shown in Figure 4.2-2, CNDDB Results.

Direct Impacts

A total of 19 sensitive plant species were detected within the BSA during focused surveys completed for the BRTR and are considered present within the BSA or have a moderate to high potential of occurring within the BSA. The locations of the special-status plant species observed during biological surveys are shown in Figures 4.2-3A through 4.2-3L, Special-Status Plant Species, and species characteristics are described in detail in the BRTR (Appendix M). All other special-status plant species are either not expected to occur or have a low potential to occur based on a lack of documented occurrences within the vicinity, lack of suitable habitat, and/or the BSA being situated outside of the known geographic or elevational range of the species. Table 4.2-1 summarizes the sensitive plant species either observed within the BSA or that have a moderate to high potential of occurring.

Table 4.2-1
Special-Status Plant Species with Potential to Occur Within the BSA

Common Name	Scientific Name
Present Within the BSA	
beach goldenaster	*Heterotheca sessiliflora* ssp. *sessiliflora*
coast woolly-heads	*Nemacaulis denudata* var. *denudata*
Coulter's goldfields	*Lasthenia glabrata* ssp. *coulteri*
decumbent goldenbush	*Isocoma menziesii* var. *decumbens*
estuary seablite	*Suaeda esteroa*
Nuttall's lotus	*Lotus nuttallianus*
Palmer's frankenia	*Frankenia palmeri*
salt marsh bird's beak	*Cordylanthus maritimus* ssp. *maritimus*
San Diego barrel cactus	*Ferocactus viridescens*
San Diego marsh-elder	*Iva hayesiana*
High to Moderate Potential to Occur Within the BSA	
aphanisma	*Aphanisma blitoides*
Brand's star phacelia	*Phacelia stellaris*
cliff spurge	*Euphorbia misera*
Coulter's saltbush	*Atriplex coulteri*
golden-spined cereus	*Bergerocactus emoryi*
Nuttall's scrub oak	*Quercus dumosa*
Orcutt's pincushion	*Chaenactis glabriuscula* var. *orcuttiana*
slender-pod jewelflower	*Caulanthus stenocarpus*
south coast saltscale	*Atriplex pacifica*

Note: BSA = Biological Study Area.

An analysis regarding potential impacts to sensitive plant species as a result of the Program is provided to assess the significance of such impacts, however actual acreages of suitable habitat and/or the number of individual sensitive plant species impacted by an individual component will be determined prior to the authorization of the site-specific component. As future site-specific components come forward, a component-specific analysis would be conducted in the review phase of the component, and any impacts to sensitive plant species would be avoided, minimized, or mitigated as conditions of subsequent component approval prior to implementation (EP-BIO-1).

Nine proposed components identified within the Program have the potential to directly impact sensitive plant species. All other sites did not identify direct impacts to sensitive plant species during BRTR preparation; however, this will be verified prior to implementation through EP-BIO-1. Table 4.2-2

lists the number of individuals of sensitive plants that would be directly impacted as part of the North Fiesta Island (NFI) Stockpile Option 1 component.

Table 4.2-2
Direct Impacts to Special-Status Plants in the North Fiesta Island Component Stockpile Option 1 Footprint

Species	Status (Federal/State/CRPR/ City of San Diego MSCP SAP)	Impacts (Number of Individuals)*
Species Observed in the Component Footprint		
Coast woolly-heads	None/None/1B.2/None	2,115
Decumbent goldenbush	None/None/1B.2/None	1

Notes: CRPR = California Rare Plant Rank; MSCP SAP = Multiple Species Conservation Program Subarea Plan.
* Impacts to species are primarily from restoration activities.
CRPR: California Rare Plant Rank
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
Threat Rank
.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)

Two special-status plants were detected within the component footprint: Coast woolly-heads and decumbent goldenbush. No additional special-status species have moderate or high potential to occur within the component footprint. Coast woolly-heads and decumbent goldenbush are not covered or narrow endemic species but are considered CRPR 1B.2 species and are present throughout the component parcel where these species would be directly impacted by the component. Therefore, impacts to this species would be considered **potentially significant,** absent mitigation.

Table 4.2-3 lists the number of individuals of sensitive plants that would be directly impacted as part of the Fiesta Island Causeway component.

Table 4.2-3
Direct Impacts to Special-Status Plants in the Tecolote Creek and Fiesta Island Causeway Component Footprint

Species	Status (Federal/State/CRPR/ City of San Diego MSCP SAP)	Impacts (Number of Individuals)
Species Observed in the Component Footprint		
Estuary seablite	None/None/1B.1/None	3*

Notes: CRPR = California Rare Plant Rank; MSCP SAP = Multiple Species Conservation Program Subarea Plan.
* Impacts to species are primarily from restoration activities.

CRPR: California Rare Plant Rank:
FE: Federally listed as endangered
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
Threat Rank
.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)

One special-status plant species, estuary seablite, was detected within the component footprint. No additional special-status species have moderate or high potential to occur within the component footprint. Estuary seablite is not a covered or narrow endemic species but is considered a CRPR 1B.1 species and is present within the component parcel where it would be directly impacted by the component. Therefore, impacts to this species would be considered **potentially significant,** absent mitigation. Southern coastal salt marsh is targeted for restoration at this site, and high salt marsh dominant species will include estuary seablite.

Table 4.2-4 lists the number of individuals of sensitive plants that would be directly impacted as part of the Fiesta Island Site No. 1 South component.

Table 4.2-4
Direct Impacts to Special-Status Plants in the Fiesta Island Site No. 1 – South Component Footprint

Species	Status (Federal/State/CRPR/ City of San Diego MSCP SAP)	Impacts (Number of Individuals)
Species Observed in the Component Footprint		
Coast woolly-heads	None/None/1B.2/None	700*
Nuttall's lotus	None/None/1B.2/None	5,007*
Species with Moderate or High Potential to Occur but Not Detected in the Component Footprint		
Aphanisma	None/None/1B.2/Narrow Endemic	N/A
Coulter's saltbush	None/None/1B.2/None	N/A
South coast saltscale	None/None/1B.2/None	N/A
Golden-spined cereus	None/None/2B.2/None	N/A
Slender-pod jewelflower	None/None/None/Covered	N/A
Cliff spurge	None/None/2B.2/None	N/A
Brand's star phacelia	None/None/1B.1/None	N/A

Notes: CRPR = California Rare Plant Rank; MSCP SAP = Multiple Species Conservation Program Subarea Plan.
* Impacts to species are primarily from restoration activities.
CRPR: California Rare Plant Rank:
FE: Federally listed as endangered
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere

CRPR 2B: Plants rare, threatened, or endangered in California but more common elsewhere
Threat Rank

- .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)

Two special-status plants were detected within the component footprint: coast woolly-heads and Nuttall's lotus. Seven additional special-status species have moderate or high potential to occur within the component footprint: aphanisma, Coulter's saltbush, south coast saltscale, golden-spined cereus, slender-pod jewelflower, cliff spurge, and Brand's star phacelia.

Slender-pod jewelflower is an MSCP SAP covered species and aphanisma is an MSCP SAP-covered, narrow endemic species. Nuttall's lotus, coast woolly-heads, Coulter's salt bush, south coast saltscale, and Brand's star phacelia, are not MSCP SAP-covered or narrow endemic species, but are considered CRPR 1B.1 or 2 species and are present or potentially present within the component parcel where these species could be directly impacted by the component. The other species with potential to occur within the component footprint is cliff spurge, which is considered a CRPR 2B.1 species and does have a relatively wide geographic distribution within San Diego County. Impacts to these species would be considered **potentially significant**, absent mitigation. However, Diegan coastal sage scrub will be targeted for restoration at this site and other Program sites that may be suitable as mitigation for significant impacts of this component and other components of the Program, as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-5 lists the number of individuals of sensitive plants that would be directly impacted as part of the Fiesta Island Site No. 2 North Central component.

Table 4.2-5
Direct Impacts to Special-Status Plants in the Fiesta Island Site No. 2 – North Central Component Footprint

Species	Status (Federal/State/CRPR/ City of San Diego MSCP SAP)	Impacts (Number of Individuals)
Species Observed in the Component Footprint		
Coast woolly-heads	None/None/1B.2/None	2,257*
Species with Moderate or High Potential to Occur but Not Detected in the Component Footprint		
Aphanisma	None/None/1B.2/Narrow Endemic	N/A
Coulter's saltbush	None/None/1B.2/None	N/A
South coast saltscale	None/None/1B.2/None	N/A

Table 4.2-5
Direct Impacts to Special-Status Plants in the Fiesta Island Site No. 2 – North Central Component Footprint

Species	Status (Federal/State/CRPR/ City of San Diego MSCP SAP)	Impacts (Number of Individuals)
Orcutt's pincushion	None/None/1B.1/None	N/A
Brand's star phacelia	None/None/1B.1/None	N/A

Notes: CRPR = California Rare Plant Rank; MSCP SAP = Multiple Species Conservation Program Subarea Plan.
* Impacts to species are primarily from restoration activities.
CRPR: California Rare Plant Rank :
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
CRPR 3: Review List: Plants about which more information is needed
CRPR 4: Watch List: Plants of limited distribution
Threat Rank
.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)

One special-status plant species was detected within the component footprint, coast woolly-heads. Five additional special-status species have moderate or high potential to occur within the component footprint: aphanisma, Coulter's saltbush, south coast saltscale, Orcutt's pincushion, and Brand's star phacelia.

Aphanisma is a MSCP SAP-covered narrow endemic species and CRPR 1B.2 species. Coast woolly-heads, Coulter's salt bush, south coast saltscale, Orcutt's pincushion, and Brand's star phacelia are not MSCP SAP-covered, but are considered CRPR 1B.1 or 2 species and are potentially present within the component parcel where these species could be directly impacted by the component. Impacts to these species would be considered **potentially significant**, absent mitigation. However, southern foredune will be targeted for restoration at this site and restored habitats that may be suitable as mitigation for significant impacts of this component and other components of the Program, as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-6 lists the number of individuals of sensitive plants that would be directly impacted as part of the Fiesta Island Site No. 3 Near Youth Camping component.

Table 4.2-6
Direct Impacts to Special-Status Plants in the Fiesta Island Site No. 3 – Near Youth Camping Component Footprint

Species	Status (Federal/State/CRPR/ City of San Diego MSCP SAP)	Impacts (Number of Individuals)
Species Observed in the Component Footprint		
Nuttall's lotus	None/None/1B.2/Covered	30*

Notes: CRPR = California Rare Plant Rank; MSCP SAP = Multiple Species Conservation Program Subarea Plan.
* Impacts to species are primarily from restoration activities.
CRPR: California Rare Plant Rank :
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
Threat Rank
.2 – Moderately threatened in California (20%–80% occurrences threatened/moderate degree and immediacy of threat)

One special-status plant species was detected within the component footprint: Nuttall's lotus. No additional special-status species have moderate or high potential to occur within the component footprint.

Nuttall's lotus is an MSCP SAP-covered and CRPR 1B.2 species and is present within the component parcel where it would be directly impacted by the component. Impacts to this species are considered **potentially significant**, absent mitigation. However, Diegan coastal sage scrub will be targeted for restoration at this site and other Program sites that may be suitable as mitigation for significant impacts of this component and other components of the Program, as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-7 lists the number of individuals of sensitive plants that would be directly impacted as part of the SeaWorld Drive/San Diego River Site No. 5b – Triangle component.

Table 4.2-7
Direct Impacts to Special-Status Plants in the SeaWorld Drive/San Diego River Site No. 5b – Triangle Restoration Area Component Footprint

Species	Status (Federal/State/CRPR/ City of San Diego MSCP SAP)	Impacts (Number of Individuals)*
Species with Moderate or High Potential to Occur but Not Detected in the Component Footprint		
Aphanisma	None/None/1B.2/Narrow Endemic	N/A
Coulter's saltbush	None/None/1B.2/None	N/A
South coast saltscale	None/None/1B.2/None	N/A
Golden-spined cereus	None/None/2B.2/None	N/A
Slender-pod jewelflower	None/None/None/Covered	N/A

Table 4.2-7
Direct Impacts to Special-Status Plants in the SeaWorld Drive/San Diego River Site No. 5b – Triangle Restoration Area Component Footprint

Species	Status (Federal/State/CRPR/ City of San Diego MSCP SAP)	Impacts (Number of Individuals)*
Cliff spurge	None/None/2B.2/None	N/A
Brand's star phacelia	None/None/1B.1/None	N/A

Notes: CRPR = California Rare Plant Rank; MSCP SAP = Multiple Species Conservation Program Subarea Plan.
* Impacts to species are primarily from restoration activities.
CRPR: California Rare Plant Rank:
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
CRPR 2B: Plants rare, threatened, or endangered in California but more common elsewhere
Threat Rank
.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)

Seven additional special-status species have moderate or high potential to occur within the component footprint: aphanisma, Coulter's saltbush, south coast saltscale, golden-spined cereus, slender-pod jewelflower, cliff spurge, and Brand's star phacelia.

Slender-pod jewelflower and aphanisma and MSCP SAP-covered and narrow endemic species, respectively. Coulter's salt bush, south coast saltscale, and Brand's star phacelia, are not covered or narrow endemic species, but are considered CRPR 1B.1 or 2 species and are potentially present within the component parcel where these species could be directly impacted by the component. The other species with potential to occur within the component footprint are cliff spurge and golden-spined cereus, which are considered CRPR 2B.1 species and have a relatively wide geographic distribution within San Diego County. Impacts to these species would be considered **potentially significant**, absent mitigation. However, Diegan coastal sage scrub will be targeted for restoration at this site and other Program sites that may be suitable as mitigation for significant impacts of this component and other components of the Program, as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-8 lists the number of individuals of sensitive plants that would be directly impacted as part of the SeaWorld Drive/San Diego River Site No. 5c – South Shores East component.

Table 4.2-8
Direct Impacts to Special-Status Plants in the SeaWorld Drive/San Diego River Site No. 5c – South Shores East Component Footprint

Species	Status (Federal/State/CRPR/ City of San Diego MSCP SAP)	Impacts (Number of Individuals)
Species Observed in the Component Footprint		
Coast woolly-heads	None/None/1B.2/None	3,235*
Nuttall's lotus	None/None/1B.2/None	525*
Species with Moderate or High Potential to Occur but Not Detected in the Component Footprint		
Aphanisma	None/None/1B.2/Narrow Endemic	N/A
Coulter's saltbush	None/None/1B.2/None	N/A
South coast saltscale	None/None/1B.2/None	N/A
Golden-spined cereus	None/None/2B.2/None	N/A
Slender-pod jewelflower	None/None/None/Covered	N/A
Cliff spurge	None/None/2B.2/None	N/A
Brand's star phacelia	None/None/1B.1/None	N/A

Notes: CRPR = California Rare Plant Rank; MSCP SAP = Multiple Species Conservation Program Subarea Plan.
* Impacts to species are primarily from restoration activities.
CRPR: California Rare Plant Rank:
CRPR 1B: Plants rare, threatened, or endangered in California and 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
Threat Rank
.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)

Two special-status plants were detected within the component footprint: coast woolly-heads and Nuttall's lotus. Seven additional special-status species have moderate or high potential to occur within the component footprint: aphanisma, Coulter's saltbush, south coast saltscale, golden-spined cereus, California mustard, cliff spurge, and Brand's star phacelia.

Slender-pod jewelflower is an MSCP SAP-covered species and aphanisma is an MSCP SAP-covered, narrow endemic species. Coast woolly-heads, Nuttall's lotus, Coulter's salt bush, south coast saltscale, and Brands star phacelia, are not MSCP SAP-covered or narrow endemic species, but are considered CRPR 1B.1 or 2 species and are potentially present within the component parcel where these species could be directly impacted by the component. The other species with potential to occur within the component footprint are cliff spurge and golden-spined cereus, which are considered CRPR 2B.1

species and have a relatively wide geographic distribution within San Diego County. Impacts to these species would be considered **potentially significant**, absent mitigation. However, upland native habitats targeted for restoration at this site and restored habitats that may be suitable as mitigation for significant impacts of this component and other components of the Program, as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-9 lists the number of individuals of sensitive plants that would be directly impacted as part of the Rose Creek Bike Path component.

Table 4.2-9
Direct Impacts to Special-Status Plants in the Rose Creek Bike Path Component Footprint

Species	Status (Federal/State/CRPR/ City of San Diego MSCP SAP)	Impacts (Number of Individuals)
Species Observed in the Component Footprint		
estuary seablite	None/None/1B.1/None	86

Notes: CRPR = California Rare Plant Rank; MSCP SAP = Multiple Species Conservation Program Subarea Plan.
CRPR: California Rare Plant Rank:
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
CRPR 4: Watch List: Plants of limited distribution
Threat Rank
.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)

One special-status plant species was detected within the component footprint, estuary seablite. No additional special-status species have moderate or high potential to occur within the component footprint.

Estuary seablite is not covered or narrow endemic species but is considered a CRPR 1B.1 species and is present within the component parcel where it would be directly impacted by the component. Therefore, impacts to this species would be considered **potentially significant**, absent mitigation.

Table 4.2-10 lists the number of individuals of sensitive plants that would be directly impacted as part of the Ocean Beach Bike Path component.

Table 4.2-10
Direct Impacts to Special-Status Plants in the Ocean Beach Bike Path Component Footprint

Species	Status (Federal/State/CRPR/ City of San Diego MSCP SAP)	Impacts (Number of Individuals)
Species with Moderate or High Potential to Occur but Not Detected in the Component Footprint		
Aphanisma	None/None/1B.2/Narrow Endemic	N/A
Coulter's saltbush	None/None/1B.2/None	N/A
South coast saltscale	None/None/1B.2/None	N/A
Orcutt's pincushion	None/None/1B.1/None	N/A
Brand's star phacelia	None/None/1B.1/None	N/A

Notes: CRPR = California Rare Plant Rank; MSCP SAP = Multiple Species Conservation Program Subarea Plan.
CRPR: California Rare Plant Rank:
FE: Federally listed as endangered
CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
Threat Rank
.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)

Five special-status species have moderate or high potential to occur within the component footprint: aphanisma, Coulter's saltbush, south coast saltscale, Orcutt's pincushion, and Brand's star phacelia.

Aphanisma is a narrow endemic species and CRPR 1B.2 species. Coulter's salt bush, south coast saltscale, Orcutt's pincushion, and Brand's star phacelia are not covered or narrow endemic species but are considered CRPR 1B.1 or 2 species with potential to occur within the component parcel. Habitat for these species would be directly impacted by the component, and individuals of these species could be directly impacted by the component if present during component implementation. Therefore, impacts to these species would be considered **potentially significant**, absent mitigation.

Indirect Impacts

Implementation of the Program may indirectly affect sensitive plant species occurrences located adjacent to the disturbance footprints. Indirect impacts could include fugitive dust settling on plants, hydrologic changes (e.g., overspray, erosion), pollutant discharges or water quality degradation (e.g., turbidity, vehicle oil), and trampling from increased human presence in the area during the construction and restoration phases. As detailed in Chapter 3, Project Description, all construction will be subject to implementation of Environmental Protocols which include elements such as dust control, stormwater BMPs, and landscape standards that would reduce the potential for indirect

adverse impacts to **less than significant**. Requirements for a Stormwater Pollution Prevention Plan or Water Pollution Control Plan are particularly important to ensure that indirect impacts during in-water construction activities (e.g., turbidity) are avoided and minimized to the extent feasible utilizing BMPs. In addition, the Program's conformance with the MSCP SAP and Mission Bay NRMP is further detailed under Issue 6 and include measures to minimize indirect impacts to sensitive plant species occurrences. Conformance is subject to verification during subsequent environmental analysis, prior to component approvals (EP-BIO-1).

Long-term operational indirect impacts to sensitive vegetation communities and plant species may result from rehabilitated or created adjacent infrastructure (e.g., bike paths, trails) or even maintenance of restored habitats. These long-term indirect impacts may include introduction of chemicals (e.g., fertilizers) and human encroachment (e.g., trampling). Program elements have been designed to minimize human encroachment into open space areas supporting sensitive vegetation communities through perimeter fencing and signage and minimize the need for ongoing maintenance (i.e., development of resilient habitats) such that long-term indirect impacts would be expected to be reduced compared to current conditions and is therefore **less than significant**. Additionally, the Program's conformance with the MSCP SAP and Mission Bay NRMP is further detailed under Issue 6 and include measures to minimize indirect impacts to sensitive plant species occurrences. Conformance is subject to verification during subsequent environmental analysis, prior to component approvals (EP-BIO-1).

Sensitive Wildlife Species

Sensitive wildlife species are those listed as federally endangered or threatened, federally proposed for listing, state endangered or threatened, candidate for listing, CDFW fully protected, California Watch List, California Species of Special Concern, or MSCP SAP or Vernal Pool HCP Covered Species and are considered to have special-status. These species are afforded additional protections under federal, state, and local law. The locations of the special-status wildlife species observed during program surveys are shown in Figures 4.2-4A through 4.2-4L, Sensitive Wildlife Species Observations, and species characteristics are described in detail in the BRTR (Appendix M). Special-status species assessed to have a low potential to occur or are not expected to occur in the BSA are included in Appendix I of the BRTR (Appendix M).

Direct Impacts

A total of 38 sensitive wildlife species were observed during biological surveys conducted for the BRTR or have a moderate to high potential of occurring within the BSA and are summarized in Table 4.2-11.

Table 4.2-11
Special-Status Wildlife Species with Potential to Occur Within the BSA

Common Name	Scientific Name	MSCP Status	Potential to Occur
Avian Species			
American peregrine falcon	*Falco peregrinus anatum*	None	Present, low potential to nest
American white pelican	*Pelecanus erythrorhynchos*	None	Present, low potential to nest
black skimmer	*Rynchops niger*	None	Present, low potential to nest
Belding's savannah sparrow (BSS)	*Passerculus sandwichensis beldingi*	Covered	Present, high potential to nest in salt marsh habitat within the Kendall Frost Marsh Reserve/ Northern Wildlife Preserve and the San Diego River Low elsewhere
brant	*Branta bernicla*	None	Present High potential to winter, low potential to nest
California brown pelican	*Pelecanus occidentalis californicus*	Covered	Present High potential to occur but not expected to nest
California gull	*Larus californicus*	None	Present, low potential to nest
California horned lark	*Eremophila alpestris actia*	None	Present High potential to nest on Fiesta Island and South Shores
California least tern (CLT)	*Sternula antillarum browni*	Covered	Present High potential to nest within existing nesting areas, low elsewhere
Canada goose	*Branta canadensis*	Covered	High
coastal California gnatcatcher (CAGN)	*Polioptila californica*	Covered	Present in South Shores Moderate elsewhere
Cooper's hawk	*Accipiter cooperii*	Covered	Present High potential to nest within suitable habitat
double crested cormorant	*Phalacrocorax auritus*	None	Present, low potential to nest
elegant tern	*Thalasseus elegans*	Covered	Present, low potential to nest

Table 4.2-11
Special-Status Wildlife Species with Potential to Occur Within the BSA

Common Name	Scientific Name	MSCP Status	Potential to Occur
light-footed Ridgway's rail (LFFR)	*Rallus obsoletus levipes*	Covered	High potential to nest in salt marsh habitat within the Kendall-Frost Reserve/Northern Wildlife Preserve and the San Diego River Low elsewhere
long-billed curlew	*Numenius americanus*	Covered	Present, low potential to nest
northern harrier	*Circus hudsonius*	Covered	Present, moderate potential to nest
osprey	*Pandion haliaetus*	None	Present, high potential to nest within suitable habitat
redhead	*Aythya americana*	None	Present, low potential to nest
reddish egret	*Egretta rufescens*	Covered	Present, low potential to nest
southwestern willow flycatcher (SWFL)	*Empidonax traillii extimus*	Covered	Not expected to occur
tricolored blackbird	*Agelaius tricolor*	Covered	Not expected to occur
western burrowing owl (BUOW)	*Athene cunicularia*	Covered	Present, low potential to nest
western snowy plover (WSP)	*Anarhynchus* [formerly *Charadrius*] *nivosus nivosus*	Covered	Present, low potential to nest
white-faced ibis	*Plegadis chihi*	Covered	Present, low potential to nest
white-tailed kite	*Elanus leucurus*	None	Present, moderate potential to nest
yellow rail	*Coturnicops noveboracensis*	None	Moderate potential to occur and to nest
yellow warbler	*Setophaga petechia*	None	Present, moderate potential to nest within riparian habitat
Non-Avian Species			
California sea lion	*Zalophus californianus*	None	High
common bottlenose dolphin	*Tursiops truncates*	None	High
Crotch's bumble bee	*Bombus crotchii*	None	Moderate
green sea turtle	*Chelonia mydas*	None	High potential to occur but not expected to nest

Table 4.2-11
Special-Status Wildlife Species with Potential to Occur Within the BSA

Common Name	Scientific Name	MSCP Status	Potential to Occur
grunion	*Leuresthes tenuis*	None	High
monarch butterfly	*Danaus plexippus*	None	High potential to occur but not expected to overwinter
orange-throated whiptail	*Cnemidophorus hyperythrus* ssp. *beldingi*	Covered	Moderate
salt marsh skipper	*Panoquina errans*	Covered	High where saltgrass is present
Southern California legless lizard	*Anniella stebbinsi*	None	Moderate
Pacific harbor seal	*Phoca vitulina*	None	High

Notes: BSA = biological study area; MSCP SAP = Multiple Species Conservation Program Subarea Plan.

An analysis regarding potential impacts to sensitive wildlife species as a result of the Program is provided to assess the significance of such impacts, however actual impacts and acreages of suitable habitat impacted by an individual component will be determined prior to the authorization of the site-specific component. As future site-specific components come forward, a component-specific analysis would be conducted in the review phase of the component, and any impacts to sensitive wildlife species would be avoided, minimized, or mitigated as conditions of subsequent approval prior to implementation (EP-BIO-1).

Listed Species, Protected Marine Mammals, and Managed Fisheries

Of the sensitive species with potential to occur within the BSA (i.e., either observed during biological surveys or determined to have a moderate or high potential to occur), nine are state and/or federally listed or candidate species: CAGN, CLT, WSP, BSS, LFRR, BUOW, LBV, green sea turtle, and Crotch's bumble bee.

CAGN, CLT, LFRR, WSP, BSS, BUOW, and LBV are MSCP SAP-covered and listed species. In addition, the BSA supports protected marine mammals (bottlenose dolphin, Pacific harbor seal, and California sea lion) and a managed fishery (grunion).

Coastal California Gnatcatcher (CAGN, *Polioptila californica)*

Focused surveys for coastal CAGN conducted in 2019 within the Program area were negative. However, this species is known to occur in areas near the Program vicinity (CDFW 2024) and was incidentally observed within the Program area during reconnaissance surveys of the South Shores

area in 2024. CAGN could occur and could breed within potentially suitable habitat in the Program area in the future. Potentially suitable habitat for this species is present in the Program area where Diegan coastal sage scrub and disturbed Diegan coastal sage scrub were mapped.

Upland Habitat and Preserve Expansion components at the following sites have the potential to directly impact CAGN should the species occupy these sites in the future: Fiesta Island Site No.1 South; Fiesta Island Site No. 3 Near Youth Camping; Sea World Drive/San Diego River Site No. 5b Triangle; and Sea World Drive/San Diego River Site No. 5c South Shores East Area.

These components could impact CAGN individuals if the species were nesting in the impact footprint during component implementation. At Site No. 1, Site No. 3, and Site No. 5c, restoration activities would result in the temporary loss of potentially suitable nesting habitat for CAGN. In addition, portions of these component areas that were mapped as Diegan coastal sage scrub would be converted to other habitat types, resulting in a permanent loss of suitable gnatcatcher habitat. However, in the long term, these components would result in a substantial increase in quantity and quality of potentially suitable CAGN habitat (Diegan coastal sage scrub) within the Program area, through expansion and/or enhancement of existing Diegan coastal sage scrub vegetation. At site 5b, Diegan coastal sage scrub restoration activities would include enhancement of existing Diegan coastal sage scrub vegetation through non-native species removal and native species container planting and seeding.

Direct impacts to CAGN, as a result of the loss of or harm to individuals during Program implementation, or as a result of the loss of occupied habitat, would be **potentially significant** absent mitigation.

California Least Tern (CLT, *Sternula antillarum browni)*

Within the Program boundary, CLT is expected to nest in the existing preserves on Fiesta Island, on FAA Island, and at Mariner's Point, and may establish nesting colonies where suitable habitat persists or develops elsewhere in the Program area in future years. The proposed Program is not expected to result in impacts on FAA Island, Mariner's Point, or the CLT preserve at Stony point, on the southwestern corner of Fiesta Island. The proposed Program could directly impact CLT in other locations in the Program area as a result of both the Wetland and Water Quality Improvements Element and the Upland Habitat and Preserve Expansion Element.

On Fiesta Island, the NFI component would directly impact portions of the existing 28-acre CLT preserve (Site No. 4), which is located at the northeast corner of Fiesta Island. Currently, approximately half (13.9 acres) of the existing preserve is managed for CLT nesting habitat, with the remaining half vegetated by disturbed southern coastal salt marsh and not suitable for CLT nesting. As a part of the Upland Habitat and Preserve Expansion Element, the CLT preserve area would be relocated to a 28.7-acre site on the northwest portion of Fiesta Island, all of which would be managed for CLT nesting. The proposed Fiesta Island CLT preserve design is consistent with the MBPMP (City of

San Diego 2024a) and recommendations provided by the City of San Diego and the CCC. The component would result in an approximately 14.1-acre (104%) expansion of the Site No. 4 CLT Preserve Area. Implementation of the NFI component and the NFI CLT preserve expansion would result in the loss of potentially suitable CLT breeding habitat currently present in these areas; however, in the long term, the Program would result in an expansion of and improvements to CLT nesting habitat on NFI, which has supported limited or no nesting in recent years (CDFW 2024; Jackson 2022). In addition, nesting opportunities elsewhere in Mission Bay, which have been preferred by this species in recent years, would remain available during component implementation. In addition to the temporary loss of potentially suitable habitat, the NFI component and the upland habitat and preserve expansion at NFI could directly impact CLT individuals if these Program elements were implemented during the breeding season and CLT nests were present in the impact footprint during construction.

Direct impacts to CLT, as result of the loss of or harm to individuals during Program implementation, or as a result of the temporary loss of occupied habitat, would be **potentially significant,** absent mitigation.

Western Snowy Plover (*WSP, Anarhynchus [*formerly *Charadrius] nivosus nivosus*)

Western snowy plover has a high potential to winter and roost in beach habitats in the Program area but is not expected to nest. The CLT preserve expansion, the NFI component, the Cudahy Creek component, the Tecolote Creek and Fiesta Island Causeway component, the Fiesta Island Causeway component, and all of the Shoreline Restoration and Seawall Bulkhead Restoration components would result in impacts to beach habitat.

Because this species is highly mobile, individual component implementation is not expected to result in the loss of or harm to individuals, but these components would result in the temporary loss of potentially suitable wintering and roosting habitat for western snowy plover. However, the amount of habitat lost during individual component implementation would be relatively small compared to the abundance of available habitat in Mission Bay as a whole. In addition, in the long term, the Program's restoration of beach habitat would substantially increase the quantity and quality of potentially suitable habitat for this species within the Program area.

Direct impacts to western snowy plover, as a result of the temporary loss of occupied habitat, would be **less than significant**. Although nesting is not expected, because this is a listed species and the timing of implementation of the Program is undetermined, the potential direct or indirect impact to active WSP nest is considered **potentially significant,** absent mitigation**.**

Belding's Savannah Sparrow (BSS, *Passerculus sandwichensis beldingi*) and Light-Footed Ridgway's Rail (LFRR, *Rallus obsoletus levipes*)

Within the Program area, BSS and LFRR are expected to nest at the Kendall-Frost Reserve and in portions of the San Diego River and have a low potential to occur (including to nest) in other areas throughout Mission Bay that support suitable coastal salt marsh habitat, including on NFI, in the Rose Creek Inlet, and at the mouth of Tecolote Creek. The proposed Program is not expected to result in impacts at the Kendall-Frost Reserve but could directly impact these species in other locations in the Program area as a result of the Bicycle and Pedestrian Improvements Element, the Wetland and Water Quality Improvements Element, and the Upland Habitat and Preserve Expansion Element.

The Fiesta Island Causeway Path component, the Rose Creek Bike Path component, the Tecolote Creek and Fiesta Island Causeway component, the NFI component, and the CLT preserve expansion on NFI will result in the loss of areas mapped as disturbed southern coastal salt marsh and/or southern coastal salt marsh, which could support BSS and/or LFRR nesting. These components could result in direct impacts to BSS and/or LFRR individuals if the species were nesting in the impact footprint during component implementation. The Rose Creek Bike Path and the CLT preserve expansion components would result in the permanent loss of potentially suitable nesting habitat for these species and the NFI and Tecolote Creek and Fiesta Island Causeway components would result in the temporary loss of potentially suitable nesting habitat for these species. However, in the long term, the Program would result in a no-net loss of wetland habitat and these components, along with restoration activities associated with the Cudahy Creek component, would result in a substantial increase in quantity and quality of potentially suitable BSS and LFRR nesting habitat in the Program area.

Direct impacts to BSS and LFRR, as a result of the loss of or harm to individuals during Program implementation, or as a result of the loss of occupied habitat, would be **potentially significant,** absent mitigation.

Western Burrowing Owl (BUOW, *Athene cunicularia)*

Within the Program area, BUOW is expected to be present during wintering, migration, and/or dispersal, but it is not expected to nest. This species has the potential to occur in most non-developed upland areas in the Program area, including Fiesta Island, the South Shores area, and other portions of the Program area where burrows or burrow surrogates are present. BUOW has also been observed in the rip-rap bordering the San Diego River.

All of the Upland Habitat and Preserve Expansion components, the NFI component, and all of the Bicycle and Pedestrian Improvements components with the exception of the Rose Creek Bike Path component, have the potential to directly impact BUOW. Should this species winter in the Program area in the future, these components could result in the temporary loss of wintering and foraging

habitat. However, Program implementation is expected to result in no-net loss of upland habitats in the long term.

Direct impacts to BUOW, as a result of the loss of occupied habitat, would be **potentially significant,** absent mitigation.

Least Bell's Vireo (LBV, *Vireo bellii pusillus*)

Focused surveys for LBV conducted in 2024 within Rose Creek were negative (BRTR Appendix G). However, the disturbed southern willow scrub present in Rose Creek, north of Garnet Avenue, provides potentially suitable nesting habitat for LBV, and this species could nest in this portion of the Program area in the future.

The Rose Creek Bike Path component has the potential to directly impact LBV should the species occupy suitable habitat within the component footprint in the future. This component could impact LBV individuals if the species were nesting in the impact footprint during component implementation and has the potential to result in the permanent loss of occupied habitat.

Direct impacts to LBV, as a result of the loss of or harm to individuals during Program implementation, or as a result of the loss of occupied habitat, would be **potentially significant,** absent mitigation.

Green Sea Turtle (*Chelonia mydas*)

Within the Program area, green sea turtle is expected to occur in the open water and shallow bay areas. In particular, they are expected to forage within shallow subtidal eelgrass beds. Green sea turtle is not expected to nest in the Program area. The proposed Program could result in direct impacts to green sea turtle as a result of the Wetland and Water Quality Improvements Element, the Restoration of Shoreline Element, and the Bicycle and Pedestrian Improvements Element. Specifically, the NFI component, the Tecolote Creek and Fiesta Island Causeway component, the Cudahy Creek component, the Rose Creek Bike Path, the Fiesta Island Causeway Path, and components within the Restoration of Shoreline Element that require in-water work could disturb green sea turtles via direct contact with equipment. These components also have the potential to result in the loss or degradation of nearshore marine habitat that may be suitable for sea turtle resting or foraging, although the amount of habitat lost during individual component implementation would be relatively small compared to the abundance of available habitat in Mission Bay as a whole and is considered **less than significant**. In addition, in the long term, implementation of the proposed Program will result in a substantial increase in overall water quality through improved tidal exchange and reduced erosion, which will increase green sea turtle habitat quality in the Program area. Increased water quality also is likely to result in increased food abundance, such as eelgrass beds, thereby increasing foraging opportunities for green sea turtle in Mission Bay.

Direct impacts to green sea turtle, as a result of the loss of or harm to individuals during Program implementation, or as a result of habitat loss, would be **potentially significant,** absent mitigation.

Crotch's Bumble Bee (*Bombus crotchii*)

Although not listed, Crotch's bumble bee is a candidate for state listing as endangered and, as such, is afforded the protections of the CESA and is therefore analyzed along with other listed species that have the potential to occur in the Program area. This species could forage within the Program area wherever suitable floral resources are present and could nest in the Program area wherever suitable nesting substrates are present. The greatest abundance of foraging resources in the Program area occur in areas mapped as Diegan coastal sage scrub and disturbed Diegan coastal sage scrub, including within Upland Habitat and Preserve Expansion components at the following sites have the potential to directly impact Crotch's bumble bee should the species occupy these sites in the future: Fiesta Island Site No.1 South; Fiesta Island Site No.3 Near Youth Camping; Sea World Drive/San Diego River Site No. 5b Triangle; and Sea World Drive/San Diego River Site No. 5c South Shores East Area. Nesting could also occur in disturbed areas where small mammal burrows or other nesting substrates are present and foraging resources are nearby, including within all of the Upland Habitat and Preserve Expansion components, within the NFI component boundary and the NFI Stockpile Option 1 through 3.

These components could impact Crotch's bumble bee individuals if the species were nesting in the impact footprint during construction. At each of these component sites, restoration activities would result in the temporary loss of potentially suitable nesting and foraging habitat for Crotch's bumble bee. In addition, at Site No. 1, Site No. 3, and Site No. 5c, portions of these component areas that were mapped as Diegan coastal sage scrub would be converted to other habitat types, resulting in a permanent loss of potential foraging resources. However, in the long term, these components would result in a substantial increase in potential foraging resources in the Program area, through expansion and/or enhancement of existing Diegan coastal sage scrub vegetation and Program implementation is expected to result in no-net loss of upland habitats. At site 5b, Diegan coastal sage scrub restoration activities would include enhancement of existing Diegan coastal sage scrub vegetation through non-native species removal and native species container planting and seeding, which would also increase the potential foraging resources available for this species.

Direct impacts to Crotch's bumble bee, as a result of the loss of or harm to individuals during Program implementation, or as a result of the loss of occupied habitat, would be **potentially significant,** absent mitigation.

Protected Marine Mammals

Within the Program area, protected marine mammals (bottlenose dolphin, Pacific harbor seal, and California sea lion) have a high potential to occur as transients in open water throughout Mission Bay.

These Program components include in-water work that may have direct effects on open water suitable for protected marine mammals, including all Wetland and Water Quality Improvement areas (not including upland stockpile locations). In addition, several components involving shoreline or in-water construction could directly impact marine mammals, particularly if seals or sea lions enter work areas; these components include all Wetland and Water Quality Improvement areas (not including upland stockpile locations), Restoration of Shoreline areas, and Fiesta Island Site No. 4- California Least Tern Preserve. Therefore, the proposed Program has the potential to result in direct impacts to these species due to the potential for individuals to be harmed or killed during individual component implementation. However, in the long term, Program implementation would result in **less than significant** loss of open water for these wide-ranging species and the proposed restoration components would substantially increase habitat quality through enhancement of tidal wetlands. Nevertheless, potential direct impacts to marine mammals, as a result of the loss of or harm to individuals during Program implementation would be potentially significant, absent mitigation.

Managed Fishery (Grunion)

Within the Program area, grunion is a managed fishery that has a high potential to spawn on beaches below the HTL throughout Mission Bay including all Wetland and Water Quality Improvement areas (not including upland stockpile locations), Restoration of Shoreline areas, and Fiesta Island Site No. 4- California Least Tern Preserve. At each of these component sites, construction would result in the temporary loss of potentially suitable spawning habitat for grunion. In addition to impacts from habitat loss, these species are vulnerable to injury and mortality if construction occurs during spawning. The utilization of heavy equipment below the highest HTL will crush the sensitive eggs deposited in the sand. Therefore, the proposed Program has the potential to result in direct impacts to these species due to the potential for individuals to be harmed or killed during individual component implementation. However, in the long-term, Program implementation would result in less than significant loss of beach for this wide-ranging species and the proposed restoration components would substantially increase habitat quality through enhancement of tidal wetlands. Nevertheless, direct impacts to grunion spawning areas during Program implementation would be **potentially significant** absent mitigation.

Non-Listed Avian Species

Non-listed species that are covered species in the MSCP SAP include American peregrine falcon, California brown pelican, Cooper's hawk, elegant tern, long-billed curlew, northern harrier, reddish egret, white-faced ibis, Canada goose, salt marsh skipper, large-billed savannah sparrow, and orange-throated whiptail. Area Specific Management Directives (ASMDs) provided in the MSCP SAP outline specific requirements to further reduce direct and indirect impacts to these species. Conformance

with the MSCP SAP as it relates to impacts to MSCP SAP-covered species is further detailed under Issue 4.

The following non-listed, special-status avian species have at least a moderate potential to occur in the Program area but are not expected to breed within the Program area: Brant, California brown pelican, long-billed curlew, reddish egret, white-faced ibis, and large-billed savannah sparrow. Because nesting is not expected, individual component implementation is not expected to result in the loss of or harm to individuals since individuals of these species are highly mobile and are unlikely to be killed or injured during construction. However, implementation of the Program would have the potential to temporarily disrupt foraging and/or roosting behaviors and would temporarily and permanently remove potentially suitable wintering and foraging habitat for some of these species.

In the long term, implementation of the Water Quality Improvements and Restoration of Shoreline Element will result in a substantial increase in overall water quality through improved tidal exchange and reduced erosion, which is likely to result in increased food abundance, such as eelgrass beds, thereby increasing foraging opportunities for these species in Mission Bay. The Water Quality Improvements components will also result in a substantial increase in quantity and quality of saltmarsh habitat within the Program area. Nevertheless, direct impacts to brant, long-billed curlew, reddish egret, white-faced ibis, and large-billed savannah sparrow, as a result of the temporary loss of suitable foraging and roosting habitat, would be **potentially significant,** absent mitigation.

California brown pelican primarily feeds in ocean waters and foraging is not tied to the shallow nearshore marine environments that would be affected by Program implementation. Individual components are therefore not expected to result in the loss of foraging and wintering habitat for this species and direct impacts to California brown pelican would be **less than significant**.

Nine non-listed special-status avian species have the potential to nest in the Program area. Suitable nesting sites for American peregrine falcon, osprey, and white-tailed kite are not present within the impact footprint for any individual components. The proposed Program would result in impacts to areas that could support nesting by California horned lark, Canada goose, northern harrier, yellow rail, elegant tern, and/or yellow warbler. Individual adults of each of these species are unlikely to be directly killed or injured during construction activities because they are highly mobile and would likely leave the area during construction. The exception to this would be if active nests of these species are present during construction; direct impacts to active nests are **potentially significant,** absent mitigation.

As with the non-breeding avian species, most of the special-status breeding avian species could also be directly impacted by the loss of potentially suitable habitat. For example:

- The Rose Creek Bike Path component would result in the permanent loss of riparian habitat, absent mitigation, that could support nesting yellow warbler and Cooper's Hawk.

- The Fiesta Island Causeway component, the Tecolote Creek and Fiesta Island Causeway component, the NFI component, and the CLT preserve expansion will result in the loss of potentially suitable marsh habitat for yellow rail and northern harrier.
- All of the Upland Habitat and Preserve Expansion components and the Wetland and Water Quality Improvements components on Fiesta Island would result in the temporary loss of potentially suitable nesting and foraging habitat for California horned lark, northern harrier, and Canada goose, and of potentially suitable foraging habitat for white-tailed kite, should it nest in trees nearby.

Despite the temporary loss of potentially suitable habitat, for upland species, Program implementation is expected to result in no-net loss of upland and wetland habitats. In addition, the proposed restoration components would result in a substantial increase in potential nesting and foraging opportunities in the Program area, over the long term, through the expansion and/or enhancement of native upland habitats, and by substantially increasing the overall quantity and quality of wetland habitats. Nevertheless, direct impacts to American peregrine falcon, California horned lark, Canada goose, Cooper's hawk, northern harrier, white-tailed kite, yellow rail, elegant tern, and yellow warbler as a result of the temporary loss of potentially suitable nesting and foraging habitat, would be **potentially significant,** absent mitigation.

Osprey was observed nesting in two locations in the Program area, outside of any component footprint, and forages over open water portions of the Bay that would not be directly impacted by any individual component. Program implementation would not result in the loss of suitable nesting or foraging habitat for osprey and direct impacts to this species are **less than significant**.

Non-Listed Invertebrates and Reptiles

Within the Program area, salt marsh skipper could occur in salt marsh habitats where saltgrass is present, including at the Kendall-Frost Reserve, in portions of the San Diego River, on NFI, in the Rose Creek Inlet, and at the mouth of Tecolote Creek. Impacts to salt marsh skipper could occur as a result of the Bicycle and Pedestrian Improvements Element, the Wetland and Water Quality Improvements Element, and the Upland Habitat and Preserve Expansion Element. Specifically, the Fiesta Island Causeway Path component, the Rose Creek Bike Path component, the Tecolote Creek and Fiesta Island Causeway component, the NFI component, and the CLT preserve expansion on NFI will result in the loss of areas mapped as disturbed southern coastal salt marsh and/or southern coastal salt marsh. These components could result in direct impacts to salt marsh skipper from the loss of or harm to individuals, should the species be present during component implementation and from the permanent and temporary loss of potentially suitable salt marsh habitat. However, in the long term, the Program would result in a no-net loss of wetland habitat and these components, along with restoration activities

associated with the Cudahy Creek component, would result in a substantial increase in quantity and quality of potentially suitable habitat for salt marsh skipper in the Program area.

Direct impacts to salt marsh skipper, as a result of the loss of or harm to individuals during Program implementation, or as a result of the loss of occupied habitat, would be **potentially significant,** absent mitigation.

Within the Program area, orange-throated whiptail and Southern California legless lizard both have a moderate potential to occur on Fiesta Island, the South Shores Park area, and at Sea World Drive/San Diego River Site No. 5a, where suitable microhabitat conditions are present (loose soils and an abundant insect prey base for orange-throated whiptail and loose/moist soils for Southern California legless lizard). All of the Upland Habitat and Preserve Expansion components and the Wetland and Water Quality Improvements components on Fiesta Island would have the potential to directly impact these species. At each of these component sites, restoration activities would result in the temporary loss of potentially suitable habitat for these species. In addition to impacts from habitat loss, these species are vulnerable to injury and mortality during construction because they tend to be cryptic, slow moving, and below ground or under rocks or debris during cooler periods. Therefore, the proposed Program has the potential to result in direct impacts to these species due to the potential for individuals to be harmed or killed during individual component implementation. However, in the long term, Program implementation would result in no-net loss of upland habitats and the proposed restoration components would substantially increase habitat quality through enhancement of native upland habitats. Nevertheless, direct impacts to orange-throated whiptail and Southern California legless lizard, as a result of the loss of or harm to individuals during Program implementation, or the temporary loss of potentially suitable habitat, would be **potentially significant,** absent mitigation.

Indirect Impacts

As a result of Program implementation, sensitive wildlife species may be indirectly impacted by short-term impacts during construction and restoration activities and by long-term impacts that could occur during operation and maintenance of the restoration areas. Potential indirect impacts can affect special-status wildlife species through habitat degradation and/or loss of or harm to individuals.

Potential short-term indirect impacts that could impact special-status wildlife species generally include increased noise and vibration; nighttime lighting; construction-related fugitive dust; accidental clearing/grading; litter; increased human presence; and pollutant discharges or water quality degradation due to accidental spills and/or increased erosion or sedimentation. These short-term impacts could remove or degrade wildlife habitats or result in the death or injury of special-status wildlife species present in areas adjacent to Program activities.

Potential long-term indirect impacts associated with the operation and maintenance of individual component sites would include similar impacts to those that could occur during construction and restoration, including noise, vibration, lighting, and fugitive dust generated by operations and maintenance activities, as well as accidental clearing or trampling of habitats during these activities. These impacts could impact special-status wildlife species present in or adjacent to the restoration component sites. The proposed Program also has the potential to cause habitat loss, alteration, and/or conversion due to the introduction or spread of non-native, invasive plant species, and in areas downstream of or adjacent to individual component footprints as a result of altered hydrologic regimes within the Program area, especially in areas where nearshore habitats are being altered.

Short-Term Indirect Impacts

Construction activities could indirectly impact non-breeding special-status avian species foraging near component work areas. Any disruption would be temporary and these birds are likely to move to other suitable foraging habitat nearby, which is abundant in the Program area. However, if component implementation were to result in increased trash, avian and terrestrial predators could be attracted to the Program area, which could result in impacts to many of the special-status species potentially present in the Program area, including non-breeding bird species.

Special-status avian species, and other birds protected under the Migratory Bird Treaty Act and CFGC, that are actively nesting in areas adjacent to construction or restoration activities could be indirectly impacted by individual component implementation. Construction-related impacts such as noise, vibration, and increased human presence can temporarily disturb bird breeding activities, potentially resulting in nest abandonment or reduced productivity. Accidental clearing outside of the designated impact footprint could also result in the destruction of nests, indirectly impacting nesting bird species.

Construction vibration may also temporarily disturb species that occupy burrows, including reptiles and Crotch's bumble bee, and may cause the collapse of occupied burrows, potentially crushing individuals.

The NFI Wetland component, the Tecolote Creek and Fiesta Island Causeway component, and the Restoration of Seawall Bulkhead component include drilling components that may increase subtidal vibration, have hydroacoustic impacts (e.g., injury or behavioral disturbance), or water quality effects (e.g., increased turbidity temporarily reducing foraging resources), and have the potential to disturb green sea turtles, and/or marine mammals. A hydroacoustic analysis was prepared by Merkel & Associates for Fiesta Island Amendment and is utilized to establish thresholds whereby construction may result in significant indirect impacts to marine fish, green sea turtles, and marine mammals (Table 4.2-12).

Table 4.2-12
Summary of Potentially Significant In-Water Sound Pressure Level Impacts

	Impact Threshold for Marine Fish (206 dB peak and 187 dB accumulated SEL)[1]	Impact Threshold for Marine Mammals (160 dB_{rms} for impact; 120 dB_{rms} for vibratory)	Impact Threshold for Green Sea Turtles (166 dB_{rms})
Assumed Noise Levels (>5 meters of water)	Potentially Significant Hydroacoustic Impacts		
76–188 dB_{peak}	No	N/A	N/A
146–166 dB_{SEL}	Maybe	N/A	N/A
166–176 dB_{rms}	N/A	Yes	Yes

Source: M&A 2017.
Notes: dB = decibel; SEL = sound exposure level; rms = root mean square; N/A = not applicable.
[1] Accumulated SEL is derived from the number of pile strikes ($SEL_{cumulative}$ = SEL + 10*log [# strikes]); as such, the starting SEL would dictate the number of pile strikes possible prior to exceeding the threshold of 187 dB $SEL_{cumulative}$.

The impacts of increased lighting on wildlife include disorientation; avoidance of certain areas; disturbance of nighttime rest and sleep periods of diurnal birds; simulated increased day length, which affects reproductive cycles by triggering premature reproductive activity; and increased risk of predation. Construction activities requiring nighttime lighting could indirectly impact all special-status wildlife species potentially present in the Program area.

As detailed in Section 1.5, all construction will be subject to Environmental Protocols which include elements such as biological resource verification, dust control, stormwater BMPs, and landscape standards that would reduce the potential for indirect impacts to special-status wildlife species during construction and restoration activities. Individual components would be required to comply with the San Diego RWQCB MS4 Permit, the City's Stormwater Standards Manual (City of San Diego 2024c), and National Pollutant Discharge Elimination System regulations, through implementation of site design, source control, and incorporation of construction and permanent BMPs. Adherence to these standards and regulations would reduce the potential for indirect impacts related to trash, increased human presence, and accidental clearing during construction to **less than significant**. However, short-term indirect impacts to special-status wildlife species related to vibration, hydroacoustic effects, and lighting would be **potentially significant,** absent mitigation.

Long-Term Indirect Impacts

Many of the construction-related impacts discussed in the short-term indirect impacts analysis above, such as increased noise and vibration, nighttime lighting, and human presence, could have similar indirect impacts during long-term operation and maintenance activities at Wetland and Water Quality Improvement sites, Shoreline Restoration sites, and Upland Habitat and Preserve Expansion sites, should special-status wildlife species be present in or adjacent to areas subject to maintenance. Operations and maintenance activities at these Program sites include ground-disturbing activities such as grading at Wetland and Water Quality Improvement sites, beach re-nourishment and grooming at Shoreline Restoration sites, and weed control at Upland Habitat and Preserve Expansion sites. While these activities have the potential to indirectly impact special-status wildlife species present within or adjacent to maintenance work areas, all operations and maintenance is planned in conformance with the Mission Bay Natural Resources Management Plan (see Section 4.3) which ensures protection of habitat and species in designated preserves, including the MHPA, subject to verification during subsequent environmental analysis, prior to component approvals. Therefore, potential long-term indirect impacts related to operations and maintenance would be **less than significant**.

Upon completion of the Restoration of the Seawall Bulkhead Element, operation and maintenance activities would be minimal and consistent with City's standard routine maintenance requirements. Operation of the Bicycle and Pedestrian paths would generally be limited to cleaning, clearing, and repairs, as necessary. Operation and maintenance associated with these two Program elements are expected to be minimal and similar to baseline maintenance activities; therefore, long-term indirect impacts at these locations are expected to be **less than significant**.

As discussed previously, the proposed Program has the potential to cause habitat loss, alteration, and/or conversion due to the introduction or spread of non-native, invasive plant species, and in areas downstream of or adjacent to individual component footprints as a result of altered hydrologic regimes within the Program area. The Program does not include planting of native invasive species and standard City construction monitoring requirements will minimize the potential that existing invasive species are transported or otherwise dispersed off site. In addition, Program component designs have considered a range of scenarios to avoid adverse indirect impacts from altered flow regimes. Proposed habitat restoration and shoreline elements are designed to reduce adverse existing conditions and would provide more stable and resilient conditions along Mission Bay and implementation of the proposed Program is expected to greatly increase the quality and quantity of available suitable habitat for special-status wildlife species in Mission Bay. In addition, the Program's conformance with the MSCP SAP and Mission Bay Natural Resources Management Plan are detailed in Section 4 and include measures to minimize indirect impacts to special-status wildlife. Conformance is subject to verification during subsequent environmental analysis, prior to component approvals. Therefore, long-term indirect impacts related to habitat degradation and loss would be **less than significant**.

Issue 2: Sensitive Habitats

Would the project result in a substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats, as identified in the Biology Guidelines of the Land Development manual, or other sensitive natural community identified in local or regional plans, policies, regulations, or by the CDFW or USFWS?

Direct Impacts

Existing vegetation and land cover mapping from the De Anza Natural Amendment to the Mission Bay Park Master Plan study area was incorporated into the BRTR and areas within the BSA but outside of proposed component areas were not updated for this report (Harris & Associates 2023). Outside of the De Anza Natural Amendment study area, existing SanGIS vegetation mapping data (SANDAG 2012) was mapped in 2018 and 2019, with additional verification in 2024, through desktop analysis of aerial ortho-photographs and ground truthing in the field. Vegetation communities mapped within the BSA were classified in accordance with the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008), based on the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986).

Six individual components proposed in the Program have the potential to directly impact sensitive upland vegetation communities as a result of the removal of vegetation to construct the component (Figures 4.2-5A through 4.2.5L, Vegetation Communities/Eelgrass). These components are as follows:

- Fiesta Island Site No. 1 South
- Fiesta Island Site No. 2 North Central
- Fiesta Island Site No. 3 Near Youth Camping
- Sea World Drive/San Diego River Site No. 5b Triangle
- Sea World Drive/San Diego River Site No. 5c South Shores East
- Ocean Beach Bike Path

Two sensitive upland vegetation communities may be directly impacted by implementation of the above components. These include Diegan coastal sage scrub (SDBG Tier II) and southern foredunes (SDBG Tier I). Direct impacts to these vegetation communities totaling 0.1 acres or more would be considered **significant** per the City's Significance Determination Thresholds. All other potential impacts to upland vegetation communities resulting from implementation of the Program would be to non-sensitive (Tier IV or unclassified) habitat areas.

Table 4.2-13 provides a summary of the potential upland habitat impacts that may result from implementation of the Fiesta Island Site No. 1 South component.

Table 4.2-13
Upland Vegetation Community and Land Cover Impacts at the Fiesta Island Site No. 1 – South Component

Vegetation Communities and Land Cover Types	SDBG Vegetation Community	Habitat Tier	Impacts Outside of MHPA
Native Upland Vegetation Communities			
Diegan Coastal Sage Scrub	Coastal Sage Scrub	II	8.96
Non-Native Upland Vegetation Communities			
Disturbed Habitat	Disturbed	IV	31.03
		Total[1]	**39.99**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA = Multi-Habitat Planning Area.
[1] Totals may not sum due to rounding.

Implementation of the component's proposed restoration activities would result in the conversion of disturbed habitat and Diegan coastal sage scrub to coastal strand and southern coastal salt marsh habitat, vegetation communities with a higher sensitivity ranking (Tier I and Wetland, respectively) (Table 4.2.14). This component is expected to result in restored habitats that may be suitable as mitigation for significant impacts of this component and other components of the Program, as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-14
Upland Vegetation Community and Land Cover Impacts at the Fiesta Island Site No. 2 – North Central Component

Vegetation Communities and Land Cover Types	SDBG Vegetation Community	Habitat Tier	Impacts
Native Upland Vegetation Communities			
Southern Foredunes	Southern foredunes	I	3.26
Non-Native Upland Vegetation Communities			
Disturbed Habitat	Disturbed	IV	11.12
		Total[1]	**14.38**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c).
[1] Totals may not sum due to rounding.

Implementation of the component's proposed restoration activities would also result in the conversion of disturbed habitat to southern foredune and southern coastal salt marsh, vegetation communities with a higher sensitivity ranking (Tier I and Wetland, respectively) (Table 4.2-15). This component is expected to result in restored habitats that may be suitable as mitigation for significant impacts of this component and other components of the Program, as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-15
Upland Vegetation Community and Land Cover Impacts at the Fiesta Island Site No. 3 – Near Youth Camping Component

Vegetation Communities and Land Cover Types	SDBG Vegetation Community	Habitat Tier	Impacts Outside of MHPA
Native Upland Vegetation Communities			
Diegan Coastal Sage Scrub	Coastal Sage Scrub	II	3.81
Non-Native Upland Vegetation Communities			
Disturbed Habitat	Disturbed	IV	9.58
		Total[1]	**13.40**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c).
[1] Totals may not sum due to rounding.

Implementation of the component's proposed restoration activities would also result in the conversion of disturbed habitat and Diegan coastal sage scrub to coastal strand and southern coastal salt marsh habitat, vegetation communities with a higher sensitivity ranking (Tier I and Wetland, respectively) (Table 4.2-16). This component is expected to result in restored habitats that may be suitable as mitigation for significant impacts of this component and other components of the Program, as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-16
Upland Vegetation Community and Land Cover Impacts at the SeaWorld Drive/San Diego River Site No. 5b – Triangle Restoration Area Component

Vegetation Communities and Land Cover Types	SDBG Vegetation Community	Habitat Tier	Impacts Within MHPA	Impacts Outside of MHPA
Native Upland Vegetation Communities				
Diegan Coastal Sage Scrub	Coastal Sage Scrub	II	4.34	1.64
Non-Native Upland Vegetation Communities				
Disturbed Habitat	Disturbed	IV	0.46	0.31
		Total[1]	**4.80**	**1.95**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c).
[1] Totals may not sum due to rounding.

This component is expected to result in restored habitat that may be suitable as mitigation for this or other components of the Program, as determined during subsequent environmental analysis, prior to component approval (Table 4.2-17).

Table 4.2-17
Upland Vegetation Community and Land Cover Impacts at the SeaWorld Drive/San Diego River Site No. 5c – South Shores East Area Component

Vegetation Communities and Land Cover Types	SDBG Vegetation Community	Habitat Tier	Impacts Outside of MHPA
Native Upland Vegetation Communities			
Diegan Coastal Sage Scrub	Coastal Sage Scrub	II	5.03
Non-Native Upland Vegetation Communities			
Disturbed Habitat	Disturbed	IV	45.65
Land Covers			
Urban/Developed	N/A	None	0.89
		Total[1]	**51.57**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c).
[1] Totals may not sum due to rounding.

Implementation of the component's proposed restoration activities would also result in the conversion of disturbed habitat and Diegan coastal sage scrub to coastal strand, southern foredune,

and southern coastal salt marsh habitat, vegetation communities with a higher sensitivity ranking (Tier I or Wetland) (Table 4.2-18). This component is expected to result in restored habitats that may be suitable as mitigation for significant impacts of this component and other components of the Program, as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-18.
Upland Vegetation Community and Land Cover Impacts at the Ocean Beach Bike Path Component

Vegetation Communities and Land Cover Types	SDBG Vegetation Community	Habitat Tier	Impacts Within MHPA	Impacts Outside of MHPA
Native Upland Vegetation Communities				
Diegan Coastal Sage Scrub	Coastal Sage Scrub	II	0.08	<0.01
Southern Foredunes	Southern Foredunes	I	<0.01	0
Land Covers				
Beach	Disturbed	IV	0.25	0.21
Urban/Developed	N/A	None	0.16	1.92
		Total[1]	**0.49**	**2.13**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA = Multi-Habitat Planning Area.
[1] Totals may not sum due to rounding.

Impacts to Tier I and II uplands are below the 0.10-acre SDBG threshold, located on the edge of development in a high public use area, and therefore less than significant.

Indirect Impacts

Implementation of the Program may indirectly affect sensitive upland vegetation communities located adjacent to the disturbance footprints. Indirect impacts to these vegetation communities could include fugitive dust, hydrologic changes (e.g., overspray, erosion), pollutant discharges or water quality degradation (e.g., turbidity, vehicle oil), and trampling from increased human presence in the area during the construction and restoration phases. All construction will be subject to implementation of Environmental Protocols, which include elements such as dust control, stormwater BMPs, and landscape standards that would reduce the potential for indirect adverse impacts to **less than significant**. Requirements for a Stormwater Pollution Prevention Plan or Water Pollution Control Plan are particularly important to ensure that indirect impacts during in-water construction activities (e.g., turbidity) are avoided and minimized to the extent feasible utilized BMPs.

Long-term operational indirect impacts to sensitive upland vegetation communities may result from rehabilitated or created adjacent infrastructure (e.g., bike paths, trails) or even maintenance of restored habitats. These long-term indirect impacts may include introduction of chemicals (e.g., fertilizers) and human encroachment (e.g., trampling). Program elements have been designed to minimize human encroachment into open space areas supporting sensitive vegetation communities through perimeter fencing and signage and minimize the need for ongoing maintenance (i.e., development of resilient habitats) such that long-term indirect impacts would be expected to be reduced compared to current conditions and is therefore **less than significant**. In addition, the Program's conformance with the MSCP SAP and Mission Bay Natural Resources Management Plan are detailed in under Issue 4 and include measures to minimize indirect impacts to sensitive vegetation communities and plant species occurrences. Conformance is subject to verification during subsequent environmental analysis, prior to component approvals.

Issue 3: Wetlands

Would the project result in a substantial adverse impact on wetlands (including, but not limited to, marsh, vernal pool, riparian, etc.) through direct removal, filling, hydrological interruption, or other means?

Direct Impacts

Wetland vegetation communities mapped within the BSA were classified in accordance with the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008), based on the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) (Figures 4.2-5A through 4.2.5L). Wetland vegetation classifications provided also reference the definitions used in the SDBG (City of San Diego 2018c). Anticipated regulatory agency jurisdiction based on the Aquatic Resources Delineation Report (ARDR) prepared for the Program (Appendix C to the BRTR) is also provided (Figures 4.2-6A through 4.2.6L, Potential Jurisdictional Waters of the U.S. and State).

A total of 19 individual components proposed in the Program have the potential to directly impact wetlands as a result of dredging, filling, hydrological interruption, hydrological modification, and bank modification. Seventeen wetland vegetation communities may be directly impacted by implementation of these components. These are provided in Table 4.2-19.

Table 4.2-19
Wetland Vegetation Communities

Vegetation Communities and Land Cover Types	SDBG Habitat Types
Beach[1]	Marine Habitats
Coastal and Valley Freshwater Marsh	Freshwater Marsh

Table 4.2-19
Wetland Vegetation Communities

Vegetation Communities and Land Cover Types	SDBG Habitat Types
Coastal Brackish Marsh	Salt Marsh
Disturbed Coastal and Valley Freshwater Marsh	Freshwater Marsh
Disturbed Southern Coastal Salt Marsh	Salt Marsh
Disturbed Southern Willow Scrub	Riparian Scrub
Disturbed Wetland – Arundo	Disturbed Wetland
Disturbed Wetland – Concrete-Lined Channel	Non-Vegetated Channel or Floodway
Intertidal Estuary	Marine Habitats
Non-Native Riparian	Riparian Scrub
Open Water[1]	Marine Habitats
Saltpan/Mudflats	Salt Panne
Shallow Bay	Marine Habitats
Southern Coastal Salt Marsh	Salt Marsh
Eelgrass	Eelgrass Beds
Subtidal Ocean	Marine Habitats
Tidal Channel	Marine Habitats
Unvegetated Habitat[1]	Marine Habitats

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c).

[1] Beach, Open Water, and Unvegetated Habitat are classified as either Wetland (Marine Habitat) or Tier IV Upland (Disturbed) based on location relative to tides and extent of recreation/maintenance uses.

Any direct impact to wetlands within the coastal zone are considered significant per the City's significance determination thresholds. The vast majority of wetland impacts proposed under the Program would occur within the coastal zone and are considered **significant**. Outside the coastal zone, impacts to wetlands exceeding 0.01 acres are considered **significant**. The Rose Creek Bike Path component is the only Program component that extends beyond the limits of the coastal zone.

Table 4.2-20 provides a summary of the potential wetland impacts that may result from implementation of the NFI Wetland component.

Table 4.2-20
Wetland Vegetation Community and Land Cover Impacts at the North Fiesta Island Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Within MHPA (acres)	Impacts Outside of MHPA (acres)
Beach	Marine Habitats	USACE/RWQCB/CCC/City	1.40	3.58
Disturbed Southern Coastal Salt Marsh	Saltmarsh	RWQCB/CCC/City	0	0.15
Eelgrass	Eelgrass Beds	USACE/RWQCB/CCC/City	0	1.04
Open Water	Marine Habitats	USACE/RWQCB/CCC/City	0	1.14
		Total[1]	**1.40**	**5.92**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum precisely due to rounding.

Implementation of the component would result in direct impacts to beach, disturbed southern coastal salt marsh, and open water comprising aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. In addition, eelgrass would be subject to permanent or temporary removal during construction and additional impacts to eelgrass would be assessed for unvegetated areas within 5 meters of mapped eelgrass, to account for fluctuating eelgrass distribution and functional influence around eelgrass cover (NOAA 2014). This component is expected to result in restored habitats that may be suitable as mitigation for significant impacts of this component and other components of the Program, as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-21 provides a summary of the potential wetland impacts that may result from implementation of the NFI Stockpile Option 1 component.

Table 4.2-21.
Wetland Vegetation Community and Land Cover Impacts at the North Fiesta Island Component Stockpile Option 1

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Outside of MHPA (acres)
Disturbed Southern Coastal Salt Marsh	Salt Marsh	RWQCB/CCC/City	0.17
		Total[1]	**0.17**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum due to rounding.

Implementation of the component would result in direct impacts to disturbed southern coastal salt marsh comprising aquatic resources potentially under the jurisdiction of RWQCB, CCC, and/or the City. RWQCB, CCC, and the City are expected to require mitigation for impacts to disturbed southern coastal salt marsh. Direct impacts to disturbed habitat would be **less than significant**.

Table 4.2-22 provides a summary of the potential wetland impacts that may result from implementation of the Tecolote Creek and Fiesta Island Causeway component.

Table 4.2-22
Wetland Vegetation Community and Land Cover Impacts at the Tecolote Creek and Fiesta Island Causeway Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Within MHPA (acres)	Impacts Outside of MHPA (acres)
Beach	Marine Habitats	USACE/RWQCB/CCC/City	0	1.87
Open Water	Marine Habitats	USACE/RWQCB/CCC/City	1.66	13.33
Eelgrass	Eelgrass Beds	USACE/RWQCB/CCC/City	0	0.66
Southern Coastal Salt Marsh	Salt Marsh	USACE/RWQCB/CCC/City	0.42	1.19
		Total[1]	**2.08**	**17.05**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum precisely due to rounding.

Implementation of the component would result in direct impacts to beach, open water, and southern coastal salt marsh comprising aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. In addition, eelgrass would be subject to permanent or temporary removal during construction and additional impacts to eelgrass would be assessed for unvegetated areas within 5 meters of mapped eelgrass, to account for fluctuating eelgrass distribution and functional influence around eelgrass cover (NOAA 2014). This component is expected to result in restored habitats that may be suitable as mitigation for significant impacts of this component and other components of the Program, as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-23 provides a summary of the potential wetland impacts that may result from implementation of the Cudahy Creek component.

Table 4.2-23
Wetland Vegetation Community and Land Cover Impacts at the Cudahy Creek Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Outside of MHPA (acres)
Beach	Marine Habitats	USACE/RWQCB/CCC/City	0.78
Open Water[2]	Marine Habitats	USACE/RWQCB/CCC/City	7.27
Eelgrass	Eelgrass Beds	USACE/RWQCB/CCC/City	0.84
		Total[1]	**8.88**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum due to rounding.

Implementation of the component would result in direct impacts to beach and open water comprising aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. In addition, eelgrass would be subject to permanent or temporary removal during construction and additional impacts to eelgrass would be assessed for unvegetated areas within 5 meters of mapped eelgrass, to account for fluctuating eelgrass distribution and functional influence around eelgrass cover (NOAA 2014). This component is expected to result in restored habitats that may be suitable as

mitigation for significant impacts of this component and other components of the Program, as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-24 provides a summary of the potential wetland impacts that may result from implementation of the Vacation Island Northwest component.

Table 4.2-24
Wetland Vegetation Community and Land Cover Impacts at the Vacation Island Northwest Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Outside of MHPA (acres)
Beach	Marine Habitats	USACE/RWQCB/CCC/City	0.59
		Total[1]	**0.59**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum due to rounding.

Implementation of the component would result in direct impacts to beach comprising aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. Impacts to this jurisdictional resource and City wetland are considered significant but may be adequately offset by shoreline restoration that results in no-net-loss of City wetlands and enhanced function (e.g., greater shoreline stability), as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-25 provides a summary of the potential wetland impacts that may result from implementation of the Vacation Island Northeast component.

Table 4.2-25
Wetland Vegetation Community and Land Cover Impacts at the Vacation Island Northeast Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Outside of MHPA (acres)
Beach	Marine Habitats	USACE/RWQCB/CCC/City	0.60
Open Water	Marine Habitats	USACE/RWQCB/CCC/City	0.12

Table 4.2-25
Wetland Vegetation Community and Land Cover Impacts at the Vacation Island Northeast Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Outside of MHPA (acres)
Eelgrass	Eelgrass Beds	USACE/RWQCB/CCC/City	0.02
		Total[1]	**0.74**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum due to rounding.

Implementation of the component would result in direct impacts to beach and open water comprising aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. In addition, eelgrass would be subject to permanent or temporary removal during construction and additional impacts to eelgrass would be assessed for unvegetated areas within 5 meters of mapped eelgrass, to account for fluctuating eelgrass distribution and functional influence around eelgrass cover (NOAA 2014). Impacts to this jurisdictional resource and City wetland are considered significant but may be adequately offset by shoreline restoration that results in no-net-loss of City wetlands and enhanced function (e.g., greater shoreline stability), as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-26 provides a summary of the potential wetland impacts that may result from implementation of the Vacation Island Southwest component.

Table 4.2-26
Wetland Vegetation Community and Land Cover Impacts at the Vacation Island Southwest Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Outside of MHPA (acres)
Beach	Marine Habitats	USACE/RWQCB/CCC/City	0.17
Open Water	Marine Habitats	USACE/RWQCB/CCC/City	0.17
Eelgrass	Eelgrass Beds	USACE/RWQCB/CCC/City	0.08
		Total[1]	**0.42**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum due to rounding.

Implementation of the component would result in direct impacts to beach and open water comprising aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. In addition, eelgrass would be subject to permanent or temporary removal during construction and additional impacts to eelgrass would be assessed for unvegetated areas within 5 meters of mapped eelgrass, to account for fluctuating eelgrass distribution and functional influence around eelgrass cover (NOAA 2014). Impacts to this jurisdictional resource and City wetland are considered significant but may be adequately offset by shoreline restoration that results in no-net-loss of City wetlands and enhanced function (e.g., greater shoreline stability), as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-27 provides a summary of the potential wetland impacts that may result from implementation of the Ventura Cove component.

Table 4.2-27
Wetland Vegetation Community and Land Cover Impacts at the Ventura Cove Park Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Outside of MHPA (acres)
Beach	Marine Habitats	USACE/RWQCB/CCC/City	0.03
Open Water	Marine Habitats	USACE/RWQCB/CCC/City	0.01
		Total[1]	**0.05**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum due to rounding.

Implementation of the component would result in direct impacts to beach and open water comprising aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. Impacts to this jurisdictional resources and City wetlands are considered significant but may be adequately offset by shoreline restoration that results in no-net-loss of City wetlands and enhanced function (e.g., greater shoreline stability), as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-28 provides a summary of the potential wetland impacts that may result from implementation of the Crown Point component.

Table 4.2-28
Wetland Vegetation Community and Land Cover Impacts at the Crown Point Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Outside of MHPA (acres)
Beach	Marine Habitats	USACE/RWQCB/CCC/City	0.59
Open Water	Marine Habitats	USACE/RWQCB/CCC/City	<0.01
		Total[1]	**0.59**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum due to rounding.

Implementation of the component would result in direct impacts to beach and open water comprising aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. Impacts to this jurisdictional resource and City wetland are considered significant but may be adequately offset by shoreline restoration that results in no-net-loss of City wetlands and enhanced function (e.g., greater shoreline stability), as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-29 provides a summary of the potential wetland impacts that may result from implementation of the West Sail Bay component.

Table 4.2-29
Wetland Vegetation Community and Land Cover Impacts at the West Sail Bay Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Outside of MHPA (acres)
Beach	Marine Habitats	USACE/RWQCB/CCC/City	0.69
		Total[1]	**0.69**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum due to rounding.

Implementation of the component would result in direct impacts to beach comprising aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. Impacts to this jurisdictional resource and City wetland are considered significant but may be adequately offset by shoreline restoration that results in no-net-loss of City wetlands and enhanced function (e.g., greater shoreline stability), as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-30 provides a summary of the potential wetland impacts that may result from implementation of the Bonita Cove component.

Table 4.2-30
Wetland Vegetation Community and Land Cover Impacts at the Bonita Cove Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Outside of MHPA (acres)
Beach	Marine Habitats	USACE/RWQCB/CCC/City	1.04
Open Water	Marine Habitats	USACE/RWQCB/CCC/City	0.23
Eelgrass	Eelgrass Beds	USACE/RWQCB/CCC/City	0.04
Shallow Bay	Marine Habitats	USACE/RWQCB/CCC/City	0.29
		Total[1]	**1.61**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum due to rounding.

Implementation of the component would result in direct impacts to beach and open water comprising aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. In addition, eelgrass would be subject to permanent or temporary removal during construction and additional impacts to eelgrass would be assessed for unvegetated areas within 5 meters of mapped eelgrass, to account for fluctuating eelgrass distribution and functional influence around eelgrass cover (NOAA 2014). Impacts to this jurisdictional resource and City wetland are considered significant but may be adequately offset by shoreline restoration that results in no-net-loss of City wetlands and enhanced function (e.g., greater shoreline stability), as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-31 provides a summary of the potential wetland impacts that may result from implementation of the Bahia Point component.

Table 4.2-31
Wetland Vegetation Community and Land Cover Impacts at the Bahia Point Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Outside of MHPA (acres)
Beach	Marine Habitats	USACE/RWQCB/CCC/City	2.77
Open Water	Marine Habitats	USACE/RWQCB/CCC/City	0.20
		Total[1]	**2.97**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum due to rounding.

Implementation of the component would result in direct impacts to beach and open water comprising aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. Impacts to these jurisdictional resources are considered significant but may be adequately offset by shoreline restoration that results in no-net-loss of City wetlands and enhanced function (e.g., greater shoreline stability), as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-32 provides a summary of the potential wetland impacts that may result from implementation of the Fiesta Island Site No. 3 – Near Youth Camping component.

Table 4.2-32
Wetland Vegetation Community and Land Cover Impacts at the Fiesta Island Site No. 3 – Near Youth Camping Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Outside of MHPA (acres)
Beach	Marine Habitats	USACE/RWQCB/CCC/City	0.01
		Total[1]	**0.01**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum due to rounding.

Table 4.2-33 provides a summary of the potential wetland impacts that may result from implementation of the Fiesta Island Site No. 4 – CLT Preserve component.

Table 4.2-33
Wetland Vegetation Community and Land Cover Impacts at the Fiesta Island Site No. 4 – California Least Tern Preserve Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Within MHPA (acres)	Impacts Outside of MHPA (acres)
Beach[1]	Marine Habitats	USACE/RWQCB/CCC/City	1.01	2.39
Eelgrass	Eelgrass Beds	USACE/RWQCB/CCC/City	0.08	0.79
Disturbed southern coastal salt marsh	Saltmarsh	RWQCB/CCC/City	0	0.05
Open Water	Marine Habitats	USACE/RWQCB/CCC/City	0	0.06
		Total[1]	**1.09**	**3.29**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum precisely due to rounding.

Implementation of the component would result in direct impacts to beach and disturbed southern coastal salt marsh, comprising aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. In addition, eelgrass would be subject to permanent or temporary removal during construction and additional impacts to eelgrass would be assessed for unvegetated areas within 5 meters of mapped eelgrass, to account for fluctuating eelgrass distribution and functional influence around eelgrass cover (NOAA 2014). This component is expected to result in restored habitats that may be suitable as mitigation for significant impacts of this component and other components of the Program, as determined during subsequent environmental analysis, prior to component approval.

Table 4.2-34 provides a summary of the potential wetland impacts that may result from implementation of the Rose Creek Bike Path component.

Table 4.2-34
Wetland Vegetation Community and Land Cover Impacts at the Rose Creek Bike Path Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Within MHPA (acres)	Impacts Outside of MHPA (acres)
Disturbed Southern Willow Scrub	Riparian Scrub	USACE/RWQCB/CCC/City	0.01	<0.01
Disturbed Southern Willow Scrub	Riparian Scrub	CDFW/CCC/City	0.01	<0.01
Disturbed Southern Willow Scrub	Riparian Scrub	USACE/RWQCB/CDFW/City	0.01	0
Disturbed Southern Willow Scrub	Riparian Scrub	CDFW/City	0.20	0
Disturbed Wetland (Concrete-Lined Channel)	Non-Vegetated Channel or Floodway	USACE/RWQCB/CDFW/City	0	0.03
Non-native Riparian	Disturbed	CDFW/City	0.15	0.08
Non-native Riparian	Disturbed	USACE/RWQCB/CDFW/City	0.01	0
Open Water	Marine Habitats	USACE/RWQCB/CCC/City	0	<0.01
Saltpan/Mudflats	Coastal Mudflats and Salt Pannes	USACE/RWQCB/CCC/City	0	0.04
Saltpan/Mudflats	Coastal Mudflats and Salt Pannes	USACE/RWQCB/CDFW/CCC/City	0	<0.01
Southern Coastal Salt Marsh	Saltmarsh	USACE/RWQCB/CCC/City	0.01	<0.01
Southern Coastal Salt Marsh	Saltmarsh	USACE/RWQCB/CDFW/CCC/City	0.02	0.01
		Total[1]	**0.42**	**0.17**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.

[1] Totals may not sum due to rounding.

Table 4.2-35 provides a summary of the potential wetland impacts that may result from implementation of the Fiesta Island Causeway component.

Table 4.2-35
Wetland Vegetation Community and Land Cover Impacts at the Fiesta Island Causeway Path Component

Vegetation Communities and Land Cover Types	SDBG Wetland Vegetation Community	Jurisdiction	Impacts Outside of MHPA (acres)
Beach	Marine Habitats	USACE/RWQCB/CCC/City	0.02
Open Water	Marine Habitats	USACE/RWQCB/CCC/City	0.06
Southern Coastal Salt Marsh	Saltmarsh	USACE/RWQCB/CCC/City	0.27
		Total[1]	**0.35**

Notes: SDBG = San Diego Biology Guidelines (City of San Diego 2018c); MHPA= Multi-Habitat Planning Area; USACE = United States Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CCC = California Coastal Commission; City = City of San Diego.
[1] Totals may not sum due to rounding.

Wetland Impacts in the Coastal Overlay Zone

The SDBG (City of San Diego 2018c) and ESL Regulations state that impacts to wetlands should be avoided and unavoidable impacts should be minimized to the maximum extent practicable. Program implementation would result in the disturbance and modification of City-regulated wetlands within the COZ. Since Program-related disturbance to City wetlands would result from proposed Wetland and Water Quality, Upland Habitat and Preserve Expansion, Restoration of Shoreline, and Bicycle and Pedestrian Improvements with incidental public service infrastructure improvements that are required to support long-term sustainable wetland restoration and public coastal access recreation, the proposed disturbance to City wetlands is permissible under Section 143.0130(d) of ESL Regulations.

Section 143.0130(e) limited uses within wetland buffer areas to public access paths, fences, restoration and enhancement activities, and other improvements necessary to protect wetlands. The Program proposes to maintain and enhance existing physical wetland buffers. No new parking lots or developed areas (other than limited recreational trails and paths) are proposed adjacent to wetlands. Substantial expanded wetlands are proposed under the Wetland and Water Quality Improvements Element that will enhance existing buffers. These elements include appropriate fencing, signage, and grade separate to reduce potential for wetland physical disturbance, noise, domestic animal intrusion, or human encroachment. Although not directly related to the creation of physical buffers, the Program has incorporated outfall and drainage improvements that will manage freshwater input to

protect wetland functions and reduce erosion. As such, through conformance with ESL Regulations, the Program impacts to coastal wetlands and wetland buffers are **less than significant**.

Indirect Impacts

Temporary indirect impacts on jurisdictional wetland resources may result from the degradation of waterways through the accidental discharge of oil, grease, and/or chemicals that may temporarily impound and/or degrade the volume, character, and/or quality of flows within the Program area during construction. Furthermore, potentially significant permanent indirect impacts that may result from Program development include downstream habitat loss, alteration, or conversion resulting from the alteration of the flow regime within the Program area. Additionally, the Program area is host to invasive species which, if transported or otherwise dispersed off site, may result in long-term conversion or degradation of additional jurisdictional areas.

Program component designs have considered a range of scenarios to avoid adverse indirect impacts from altered flow regimes. Proposed habitat restoration and shoreline elements are designed to reduce adverse existing conditions and would provide more stable and resilient conditions along Mission Bay. The Program does not include planting of native invasive species and standard City construction monitoring requirements will minimize the potential that existing invasive species are transported or otherwise dispersed off site by having a Qualified Biological Monitor present and coordinating with construction crews. Given these design and construction parameters, potential indirect impacts to jurisdictional resources are **less than significant**. In addition, the Program's conformance with the MSCP SAP and Mission Bay NRMP include measures to minimize indirect impacts to wetlands. Conformance is subject to verification during subsequent environmental analysis, prior to component approvals.

Summary of Impacts Under Issues 1-3 By Component

Proposed Program components listed in Table 4.2-36 have the potential to result in significant direct impacts to sensitive wildlife, sensitive plant occurrences, and sensitive habitats including wetlands. These potential impacts (Issues 1–3) are summarized in Table 4.2-37 by individual component.

Table 4.2-36
Program Elements with Significant Habitat and Species Impacts

Element	Location	Significant Direct Impacts to Tier I-III Uplands	Significant Direct Impacts to Wetlands	Significant Direct Impacts to Sensitive Plant Occurrences	Significant Direct Impacts to Sensitive Wildlife Habitats
Wetland and Water Quality Improvements					
	North Fiesta Island Wetland	No	Yes	No	Yes
	North Fiesta Island Stockpile Option 1	No	Yes	Yes	Yes
	North Fiesta Island Stockpile Option 2	No	No	No	Yes
	North Fiesta Island Stockpile Option 3	No	No	No	Yes
	Tecolote Creek and Fiesta Island Causeway	No	Yes	Yes	Yes
	Cudahy Creek	No	Yes	No	Yes
Restoration of Shoreline					
	Vacation Island Northwest	No	Yes	No	Yes
	Vacation Island Northeast (i.e., Ski Beach)	No	Yes	No	Yes
	Vacation Island Southwest	No	Yes	No	Yes
	Ventura Cove Park	No	Yes	No	Yes
	Crown Point	No	Yes	No	Yes
	West Sail Bay	No	Yes	No	Yes
	Bonita Cove	No	Yes	No	Yes
	Bahia Point	No	Yes	No	Yes
Upland Habitat and Preserve Expansion					
	Fiesta Island Site No.1 South	Yes	No	Yes	Yes
	Fiesta Island Site No.3 Near Youth Camping	Yes	Yes	Yes	Yes
	Fiesta Island Site No.4 North	Yes	No	Yes	Yes
	Fiesta Island Site No.5 Least Tern Preserve	No	Yes	No	Yes
	Sea World Drive / San Diego River Site No.1a - Cloverleaf Area	No	No	No	Yes
	Sea World Drive/San Diego River Site No.3c - Triangle Area	Yes	No	Yes	Yes

Table 4.2-36
Program Elements with Significant Habitat and Species Impacts

Element	Location	Significant Direct Impacts to Tier I-III Uplands	Significant Direct Impacts to Wetlands	Significant Direct Impacts to Sensitive Plant Occurrences	Significant Direct Impacts to Sensitive Wildlife Habitats
	Sea World Drive/San Diego River Site No.4d - South Shores East Area	Yes	No	Yes	Yes
Bicycle and Pedestrian Improvements					
	Rose Creek Bike Path	No	Yes	Yes	Yes
	Fiesta Island Causeway Path	No	Yes	No	Yes
	Ocean Beach Bike Path	No	No	Yes	Yes
Restoration of Seawall Bulkhead Mission Beach – Pacific Beach					
	Improvements to Segments A and B	No	No	No	Yes
	New Segment C	No	No	No	Yes
	Access Improvements	No	No	No	Yes
Deferred Maintenance	Bay-wide	No	No	No	No
Signage Update	Bay-wide	No	No	No	No

Issue 4: Wildlife Movement and Nursery Sites

Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, including linkages identified in the MSCP SAP, or impede the use of native wildlife nursery sites?

Direct Impacts

The Program components include areas within the MHPA, which acts as a local habitat linkage and an important stopover on the Pacific Flyway, a coastal migratory route.

The Program's conformance with the MSCP SAP and Mission Bay Natural Resources Management Plan are detailed in Section 4 and are subject to verification during subsequent environmental analysis,

prior to component approvals. This conformance is intended to ensure that the MHPA continues to function as a local habitat linkage during and following construction. Since this conformance requires measures that ensures minimization of adverse biological impacts (e.g., lighting, noise, trash, hazards) during construction and to verify habitat restoration benefits following construction and therefore impacts would be **potentially significant** absent mitigation. The function of the Program area as a stopover on the Pacific Flyway would be similarly impacted and is therefore considered **potentially significant** absent mitigation.

Indirect Impacts

As discussed, the Program is designed to offer beneficial effects to wildlife corridor, habitat linkage, and nursery site functions. Similarly, indirect effects (e.g., edge effects) are expected to be improved through proposed habitat restoration and improved infrastructure in areas of wildlife movement, subject to verification during subsequent environmental analysis, prior to component approvals. As discussed further under Issue 5 the Program is consistent with the MSCP SAP, including the MHPA LUAGs. As such, the Program would have **no indirect impact** to wildlife corridors or habitat linkages.

Wildlife corridors, movements, or the use of nursery sites may be affected by the indirect impacts discussed in Issues 1-3 including short-term indirect impacts during construction and restoration activities and by long-term impacts that could occur during operation and maintenance of the restoration areas. Compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2024c), and National Pollutant Discharge Elimination System regulations and implementation of measures EP-BIO-1, EP-WQ-1 and EP-LU-1 will avoid, reduce, and minimize adverse indirect impacts to wildlife movement corridors and habitat connectivity during construction activities and operation of the Program would be **less than significant.** Conformance is subject to verification during subsequent environmental analysis, prior to component approvals.

The Program proposes to conduct tidal channel dredging which is a bottom disturbing activity that has the potential to spread an invasive algae, genus *Caulerpa*, if the algae is present in the vicinity where dredging will occur. While not currently known to occur in Mission Bay, *Caulerpa* species have been identified in San Diego Bay. If *Caulerpa* is present in the Program area in the future, it could cause adverse impacts to native foundational species that create important habitats and provide ecological functions, ecosystem services, and support diverse species. *Caulerpa* can grow quickly and rapidly out-compete native species, including native eelgrass, and may be inedible to native marine herbivorous fish and invertebrates and thus potentially interfering with wildlife nursery sites. As such, impacts from the potential spread of *Caulerpa* during construction are considered **potentially significant** absent mitigation.

Issue 5: Conservation Planning

Would the project result in a conflict with the provisions of an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional, or state habitat conservation plan, either within the MSCP SAP area or in the surrounding region?

The Program would occur within the City of San Diego MSCP SAP area, an approved HCP and natural community conservation plan. No other HCP or natural community conservation plans overlap within the Program area. Most components are located outside the MSCP SAP MHPA, but several overlap with the MHPA, as discussed in Chapter 2. Some Program components that consist of habitat restoration or preserve expansion may qualify to be added to the MHPA; although no specific additions are proposed at this time. As discussed in detail in Section 4 of the BRTR, the Program does not conflict with the MSCP SAP area. Land uses proposed within the MHPA are limited to habitat restoration, passive recreation, and associated infrastructure (e.g., lighting, fencing), which are compatible land uses identified in the MSCP SAP. Restoration and recreation infrastructure (e.g., trails and signage) as well as utility infrastructure (e.g., bike paths, stormwater outfalls) have been designed in accordance with required MSCP SAP planning policies and design guidelines. The Program conforms with ASMDs for the Urban Area, Mission Bay Park, and covered species conditions, primarily by ensuring no-net-loss of covered species or habitats within the MHPA in the Program area and substantial functional uplift through habitat restoration of wetland and upland communities. Additionally, the Program is consistent with the goals and policies outlined in the Mission Bay NRMP. A detailed analysis of Program consistency with the MSCP SAP General Planning Policies and Design Guidelines, the MSCP SAP LUAGs, the MSCP SAP Framework Management Plan Management Goals and Objectives, the Mission Bay NRMP, and the ASMDs for plants and wildlife applicable to the Program area can be found in Section 4 of the BRTR (Appendix M).

Therefore, the Program would not conflict with the provisions of the MSCP SAP, and potential impacts would be **less than significant**. While the program overall and each component would enhance biological resources in conformance with the requirements of the MSCP SAP, because there would be instances where components temporarily impact MSCP SAP-designated resources and for which the duration between impact and restoration cannot be determined at this time, this temporary impact would be **significant**.

Issue 6: Multi-Habitat Planning Area Edge Effects

Would the project introduce land use within an area adjacent to the MHPA that would result in adverse edge effects?

As discussed previously, the Program has been designed to conform with the MSCP SAP LUAGs, which are intended to avoid and minimize adverse edge effects to the MHPA. The LUAGs include policies

regarding toxics, lighting, noise, barriers, grading/land development, invasive species, new residential development, and drainage from developments into the MHPA that when implemented would reduce edge effects to MHPA lands. Program components within and adjacent to the MHPA are limited to habitat restoration and passive recreation. Implementation of these components is expected to reduce adverse edge effects through restored and expanded habitats providing additional buffers and rehabilitated infrastructure reducing issues like erosion from unstable slopes, for example. A detailed discussion of the Program's consistency with the MSCP SAP LUAGs is provided in Section 4 of the BRTR (Appendix M). Therefore, impacts due to edge effects to the MHPA are **less than significant.**

Issue 7: Local Policies/Ordinances

Would the project conflict with any local policies or ordinances protecting biological resources?

The Program is located in the City of San Diego; therefore, is subject to the goals and policies in the City's General Plan (2024b). The City's General Plan elements applicable to biological resources include the Conservation and Recreation Element. As described in detail in Section 4.9, Land Use and Planning, the Program would be consistent with the City's General Plan goals and policies, including mitigation requirements. Therefore, impacts would be **less than significant.**

Issue 8: Invasive Species

Would the project result in an introduction of invasive species of plants into a natural open space area?

Direct Impacts

The Program would not result in an introduction of invasive plant species into natural open space areas. The Program consists of substantial restoration and expansion of native plant communities which will reduce the existing number of invasive plants in Mission Bay. No Program elements include planting of invasive plant species. Impacts are **less than significant**.

Indirect Impacts

The Program proposes to conduct tidal channel dredging which is a bottom disturbing activity that has the potential to spread an invasive algae, genus *Caulerpa*, if the algae is present in the vicinity where dredging will occur. While not currently known to occur in Mission Bay, *Caulerpa* species have been identified in San Diego Bay. If *Caulerpa* is present in the Program area in the future, it could cause adverse impacts to native foundational species that create important habitats and provide ecological functions, ecosystem services, and support diverse species. *Caulerpa* can grow quickly and rapidly out-compete native species, including native eelgrass, and may be inedible to native marine herbivorous

fish and invertebrates and thus potentially interfering with wildlife nursery sites. As such, impacts from the potential spread of *Caulerpa* during construction are considered **potentially significant** absent mitigation.

Additionally, the disruption of habitat and removal of vegetation as a result of grading to construct the Program components has the potential to disperse invasive plant species through the air and aquatic environments and create an opportunity for invasive plant species to establish within disturbed areas as Program components are constructed, such as within access and staging areas. Once established, invasive plant species have the potential to rapidly spread and may out-compete nearby native plant species for space and resources. However, through implementation of BMPs and by complying with standards for construction that will be implemented for each Program component through implementation of EP-BIO-3 (Landscaping and Revegetation) and EP-LU-1 (MSCP SAP Land Use Adjacency Guidelines), the potential of inadvertently spreading or introducing invasive plant species is low. Impacts would be **less than significant**.

4.2.5 MITIGATION FRAMEWORK

Mitigation measures are proposed below to reduce significant impacts identified in Section 5, to the extent feasible. Tables 4.2-37 and 4.2-38 provide a summary of mitigation measure applicability to each Program component. Actual mitigation requirements will be determined during subsequent approvals of each component based on specific final designs and updated survey data, pursuant to the Program Implementation Plan. Subsequent approval of each component may include a Site Development Permit, other permits, or award of a construction contract where no permit is required.

Table 4.2-37
Summary of Mitigation Measures and Program Component Applicability (Not Including MM-BIO-1B-G, Focused Biological Species Surveys, or MM-BIO-8, Avoidance of Listed Species Take)

Location	MM-BIO-1A	MM-BIO-2A	MM-BIO-2B	MM-BIO-3	MM-BIO-4	MM-BIO-5	MM-BIO-6	MM-BIO-7
Wetland and Water Quality Improvements								
North Fiesta Island	No	Yes	No	Yes	No	Yes	Yes	Yes
North Fiesta Island Stockpile Option 1	Yes	Yes	No	Yes	Yes	No	No	No
North Fiesta Island Stockpile Option 2	No	No	No	No	No	No	No	No
North Fiesta Island Stockpile Option 3	No	No	No	No	No	No	No	No

Table 4.2-37
Summary of Mitigation Measures and Program Component Applicability (Not Including MM-BIO-1B-G, Focused Biological Species Surveys, or MM-BIO-8, Avoidance of Listed Species Take)

Location	MM-BIO-1A	MM-BIO-2A	MM-BIO-2B	MM-BIO-3	MM-BIO-4	MM-BIO-5	MM-BIO-6	MM-BIO-7
Tecolote Creek and Fiesta Island Causeway	Yes	Yes	No	Yes	Yes	Yes	Yes	Yes
Cudahy Creek	No	Yes	No	Yes	No	Yes	Yes	Yes
Restoration of Shoreline								
Vacation Island Northwest	No	Yes	No	Yes	No	No	Yes	No
Vacation Island Northeast (i.e., Ski Beach)	No	Yes	No	Yes	No	Yes	Yes	Yes
Vacation Island Southwest	No	Yes	No	Yes	No	Yes	Yes	Yes
Ventura Cove Park	No	Yes	No	Yes	No	No	Yes	No
Crown Point	No	Yes	No	Yes	No	No	Yes	No
West Sail Bay	No	Yes	No	Yes	No	No	Yes	No
Bonita Cove	No	Yes	No	Yes	No	Yes	Yes	Yes
Bahia Point	No	Yes	No	Yes	No	No	Yes	No
Upland Habitat and Preserve Expansion								
Fiesta Island Site No. 1 South	Yes	No	Yes	Yes	Yes	No	No	No
Fiesta Island Site No. 2 North Central	Yes	No	Yes	Yes	Yes	No	No	No
Fiesta Island Site No. 3 Near Youth Camping	Yes	Yes	Yes	Yes	Yes	No	No	No
Fiesta Island Site No. 4 California Least Tern Preserve Area	No	Yes	No	Yes	No	Yes	Yes	Yes
Sea World Drive / San Diego River Site No. 5a - Cloverleaf Area	No	No	No	No	No	No	No	No
Sea World Drive/San Diego River Site No. 5b - Triangle Area	Yes	No	Yes	Yes	Yes	No	No	No
Sea World Drive/San Diego River Site No. 5c - South Shores East Area	Yes	No	Yes	Yes	Yes	No	No	No
Bicycle and Pedestrian Improvements								
Rose Creek Bike Path	Yes	Yes	No	Yes	Yes	No	No	No
Fiesta Island Causeway Path	No	Yes	No	Yes	No	No	No	No
Ocean Beach Bike Path	Yes	No	No	No	Yes	No	No	No

Table 4.2-37
Summary of Mitigation Measures and Program Component Applicability (Not Including MM-BIO-1B-G, Focused Biological Species Surveys, or MM-BIO-8, Avoidance of Listed Species Take)

Location	MM-BIO-1A	MM-BIO-2A	MM-BIO-2B	MM-BIO-3	MM-BIO-4	MM-BIO-5	MM-BIO-6	MM-BIO-7
Restoration of Seawall Bulkhead Mission Beach – Pacific Beach								
Improvements to Segments A and B	No	No	No	No	No	No	No	No
New Segment C	No	No	No	No	No	No	No	No

Table 4.2-38
Summary of Listed Wildlife Species Mitigation Measures and Program Component Applicability

Location	MM-BIO-1B/8A CAGN	MM-BIO-1C/8B LBV	MM-BIO-1D/8C CLT, WSP	MM-BIO-1E/8D LFRR, BSS	MM-BIO-1F/8E BUOW	MM-BIO-1G/8F CBB	MM-BIO-8G FPS	MM-BIO-8H Marine
Wetland and Water Quality Improvements								
North Fiesta Island	No	No	Yes	Yes	Yes	Yes	Yes	Yes
North Fiesta Island Stockpile Option 1	No	No	No	Yes	Yes	Yes	Yes	No
North Fiesta Island Stockpile Option 2	No	No	No	No	Yes	Yes	Yes	No
North Fiesta Island Stockpile Option 3	No	No	No	No	Yes	Yes	Yes	No
Tecolote Creek and Fiesta Island Causeway	No	No	No	Yes	No	No	Yes	Yes
Cudahy Creek	No	No	No	No	No	No	Yes	Yes
Restoration of Shoreline								
Vacation Island Northwest	No	No	Yes	No	No	No	Yes	Yes
Vacation Island Northeast (i.e., Ski Beach)	No	No	Yes	No	No	No	Yes	Yes

Table 4.2-38
Summary of Listed Wildlife Species Mitigation Measures and Program Component Applicability

Location	MM-BIO-1B/8A CAGN	MM-BIO-1C/8B LBV	MM-BIO-1D/8C CLT, WSP	MM-BIO-1E/8D LFRR, BSS	MM-BIO-1F/8E BUOW	MM-BIO-1G/8F CBB	MM-BIO-8G FPS	MM-BIO-8H Marine
Vacation Island Southwest	No	No	Yes	No	No	No	Yes	Yes
Ventura Cove Park	No	No	Yes	No	No	No	Yes	Yes
Crown Point	No	No	Yes	No	No	No	Yes	Yes
West Sail Bay	No	No	Yes	No	No	No	Yes	Yes
Bonita Cove	No	No	Yes	No	No	No	Yes	Yes
Bahia Point	No	No	Yes	No	No	No	Yes	Yes
Upland Habitat and Preserve Expansion								
Fiesta Island Site No. 1 South	Yes	No	No	No	Yes	Yes	Yes	No
Fiesta Island Site No. 2 North Central	No	No	No	No	Yes	Yes	Yes	No
Fiesta Island Site No. 3 Near Youth Camping	Yes	No	No	No	Yes	Yes	Yes	No
Fiesta Island Site No. 4 Least Tern Preserve	No	No	Yes	Yes	Yes	Yes	Yes	Yes
Sea World Drive / San Diego River Site No. 5a - Cloverleaf Area	No	No	No	No	Yes	Yes	Yes	No
Sea World Drive/San Diego River Site No. 5b - Triangle Area	Yes	No	No	No	Yes	Yes	Yes	No
Sea World Drive/San Diego River Site No. 5c - South Shores East Area	Yes	No	No	No	Yes	Yes	Yes	No
Bicycle and Pedestrian Improvements								
Rose Creek Bike Path	No	Yes	No	Yes	No	No	Yes	Yes
Fiesta Island Causeway Path	No	No	No	Yes	Yes	No	Yes	Yes
Ocean Beach Bike Path	No	No	No	No	Yes	No	No	Yes

Table 4.2-38
Summary of Listed Wildlife Species Mitigation Measures and Program Component Applicability

Location	MM-BIO-1B/8A CAGN	MM-BIO-1C/8B LBV	MM-BIO-1D/8C CLT, WSP	MM-BIO-1E/8D LFRR, BSS	MM-BIO-1F/8E BUOW	MM-BIO-1G/8F CBB	MM-BIO-8G FPS	MM-BIO-8H Marine
Restoration of Seawall Bulkhead Mission Beach – Pacific Beach								
Improvements to Segments A and B	No	No	No	No	No	No	No	No
New Segment C	No	No	No	No	No	No	No	No

MM-BIO-1 Focused Biological Species Surveys

Within 24 months prior to subsequent project level approval and as part of the project-specific environmental review pursuant to CEQA, focused surveys for future site-specific development shall be conducted, as applicable, in suitable habitat, in order to determine presence/absence of sensitive biological species within the proposed survey area. These surveys shall be in addition to suitable habitat/vegetation community mapping and jurisdictional aquatic resources delineation surveys conducted pursuant to EP-BIO-1. Focused surveys shall be conducted within suitable habitat according to the following protocols, or more current agency-approved protocols at the time of the surveys. Individual protocols may require a survey(s) of the proposed development footprint plus a buffer. A survey report shall be prepared and include a map and description of the location and extent of observed sensitive species that would be impacted within the areas of potential effect for each project site. If significant impacts to these species are unavoidable, the impact to the species shall be reduced to a less than significant level through implementation of MM-BIO-2 (habitat-based mitigation), MM-BIO-3 (avoidance and minimization during construction), MM-BIO-4 (sensitive plant mitigation), MM-BIO-5 (eelgrass mitigation), and/or MM-BIO-8 (avoidance of listed species take).

MM-BIO-1A Special-Status Plant Species

A qualified botanist shall survey suitable habitat proposed to be impacted to determine presence/absence of special-status plant species. Surveys shall be conducted in accordance with CDFW (CDFW 2018) and the U.S. Fish and Wildlife Service (USFWS 2011). CDFW (2018) provides botanical field surveyor qualifications. Multiple surveys may be required and timed according to blooming periods of target species and reference checks to ensure detectability.

MM-BIO-1B Coastal California Gnatcatcher (CAGN)

A biologist possessing a valid Endangered Species Act Section 10[a][1][a] Recovery Permit shall survey those suitable habitat areas within the MHPA that are proposed to be impacted (permanently or temporarily) to determine presence/absence of CAGN. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service (USFWS 1997).

MM-BIO-1C Least Bell's Vireo (LBV)

A qualified biologist shall survey suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of LBV. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service (USFWS 2001).

MM-BIO-1D California Least Tern and Western Snowy Plover (CLT/WSP)

A qualified biologist shall survey those suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of CLT and WSP. Surveys for this species shall be conducted pursuant to requirements established by the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife.

MM-BIO-1E Light-footed Ridgway's Rail and Belding's Savannah Sparrow (LFRR/BSS)

A biologist possessing a valid Endangered Species Act Section 10[a][1][a] Recovery Permit and state Scientific Collecting Permit and/or Memorandum of Understanding shall survey those suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of LFRR and/or BSS. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service, and for BSS by California Department of Fish and Wildlife.

MM-BIO-1F Western Burrowing Owl (BUOW)

A biologist possessing a valid state Scientific Collecting Permit and/or Memorandum of Understanding shall survey those suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of BUOW. Surveys for this species shall be conducted pursuant to the recommendations of CDFW (CDFG 2012).

MM-BIO-1G Crotch's Bumble Bee

A biologist possessing a valid state Scientific Collecting Permit and/or Memorandum of Understanding shall survey those **suitable** habitat areas that are proposed to be impacted (permanently or

temporarily) to determine presence/absence of Crotch's bumble bee. Surveys for this species shall be conducted pursuant to the recommendations of CDFW (CDFW 2023).

MM-BIO-2 Habitat-Based Mitigation. Habitat-based mitigation would be required for direct impacts to wetlands (see MM-BIO-2A) or sensitive uplands (see MM-BIO-2B).

MM-BIO-2A Compensatory Wetlands Mitigation

Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, any direct impacts to wetlands, including jurisdictional aquatic resources, would require mitigation to comply with City of San Diego, state and/or federal authorizations, in accordance with the City of San Diego's Biology Guidelines (or the most current adopted guidelines at the time of review). Significant impacts to sensitive wetlands could occur from Program activities, including habitat restoration, construction staging, access and stockpiling, and infrastructure improvements including storm drain outfalls, bike and pedestrian paths, and seawalls. Mitigation required as part of any federal (Clean Water Act Section 404) or state (California Fish and Game Code Sections 1601 and 1603, California Coastal Act) permit shall supersede and shall not be in addition to any mitigation identified in the California Environmental Quality Act (CEQA) document for those wetland areas covered by any federal or state permits, consistent with the City's Biology Guidelines. Mitigation acreage for other impacts to habitat (e.g., type conversion due to grading to restore lands to a higher value habitat type) will be evaluated through a Habitat Mitigation and Monitoring Plan (HMMP), subject to review and approval by applicable regulatory agencies (e.g., California Coastal Commission, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, U.S. Army Corps of Engineers, San Diego Regional Water Quality Control Board).

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TABLE 2A
WETLAND MITIGATION RATIOS
INCLUDING BIOLOGICALLY SUPERIOR DESIGN

HABITAT TYPE	MITIGATION RATIO
Coastal Wetlands:	
- Salt marsh	4:1
- Salt panne	4:1
Riparian Habitats:	
- Oak riparian forest	3:1
- Riparian forest or woodland	3:1
- Riparian scrub	2:1
- Riparian scrub in the Coastal Overlay Zone	3:1
Freshwater Marsh	2:1
Freshwater Marsh in the Coastal Overlay Zone	4:1
Natural Flood Channel	2:1
Disturbed Wetland	2:1
Vernal Pools	2:1 to 4:1*
Marine Habitats	2:1
Eelgrass Beds	2:1

Notes:
Any impacts to wetlands must be mitigated "in-kind" and achieve a "no-net loss" of wetland function and values except as provided for in Section 3B (Economic Viability Option).

* Mitigation for vernal pool impacts consistent with the VPHCP shall be 2:1 for listed fairy shrimp or when no listed plant species are present, 3:1 for San Diego button celery, and 4:1 when listed species with very limited distributions (e.g., *Spreading navarretia, San Diego mesa mint, California Orcutt grass, and Otay mesa mint*) are present. While ratio is applied to the basin area, the mitigation site must include appropriate watershed to support restored and/or enhanced basins.

Impacts shall be mitigated in one of the following two equally suitable options pursuant to the City's Biology Guidelines: (1) implementation of habitat creation, restoration, enhancement, and/or preservation through an approved Habitat Mitigation and Monitoring Plan (HMMP) or (2) acquisition of approved mitigation credits, including approved City of San Diego (City) Advanced Permittee Responsible Mitigation (APRM) sites. Impacts occurring within the Coastal Overlay Zone shall be mitigated within the Coastal Overlay Zone unless alternative mitigation is approved through California Coastal Commission action.

Option 1: Prior to subsequent approval of a Program component(s), as part of subsequent project-specific environmental review pursuant to CEQA, an HMMP shall be prepared and approved by the City's Environmental Designee (ED), in accordance with the City of

San Diego Municipal Code, Land Development Code—Biology Guidelines (SDBG). Mitigation shall conform with the SDBG, including definitions for creation (re-establishment), restoration (including rehabilitation), enhancement, and/or acquisition identified under environmentally sensitive lands (ESL), satisfaction of no net loss by including at least a 1:1 ratio of creation or restoration for all areas of permanent loss to wetlands, and the protection and notice and management elements.

When proposed mitigation involves habitat enhancement, restoration, or creation, the HMMP shall include the following information in addition to information required under Attachment B of the SDBG:

- Conceptual planting plan including planting zones, grading, and irrigation
- Seed mix/planting palette
- Planting specifications
- Monitoring program including success criteria
- Long-term maintenance and preservation plan

For mitigation that involves habitat acquisition, the HMMP shall include the following:

- Location of proposed acquisition
- Description of the biological resources to be acquired, including support for the conclusion that the acquired habitat mitigates for the specific maintenance impact
- Documentation that the mitigation area would be adequately preserved and maintained in perpetuity

Option 2: Prior to subsequent approval of a Program component(s), as part of subsequent project-specific environmental review pursuant to CEQA, allocation of mitigation site credits, approved by the ED, that shall include the following:

- A description of the location of the approved mitigation site and referenced on a map identifying the regional vicinity.
- Description of the mitigation credits to be acquired, including support for the conclusion that the acquired habitat mitigates for the specific impact. At a minimum, a description of the proposed habitat impacts, and the type (creation/restoration/enhancement) and quantity of mitigation credits requested.
- Documentation that the credits are associated with a mitigation bank or APRM site that has been approved by the appropriate Resource Agencies
- Documentation in the form of a current mitigation credit ledger

MM-BIO-2B Compensatory Uplands Habitat Mitigation

Prior to subsequent project level approval, as part of subsequent projects specific environmental review pursuant to CEQA, any direct impacts to sensitive upland vegetation would require mitigation to comply with City of San Diego with the City of San Diego's Biology Guidelines Table 3 (or the most current adopted guidelines at the time of review). Significant impacts to sensitive uplands (Tier I-III) could occur from Program activities, including habitat restoration, construction staging, access and stockpiling, and infrastructure improvements including storm drain outfalls, bike and pedestrian paths, and seawalls. Mitigation acreage for permanent loss of habitats (e.g., infrastructure improvements) shall adhere to mitigation ratios established under Table 3 of the City of San Diego Municipal Code, Land Development Code—Biology Guidelines. Mitigation required as part of any federal (Clean Water Act Section 404) or state (California Fish and Game Code Sections 1601 and 1603, California Coastal Act) permit shall supersede and shall not be in addition to any mitigation identified in the California Environmental Quality Act (CEQA) document for those upland areas covered by any federal or state permits. Mitigation acreage for other impacts to habitat (e.g., type conversion due to grading to restore lands to a higher value habitat type) will be evaluated through a Habitat Mitigation and Monitoring Plan (HMMP).

TABLE 3
UPLAND MITIGATION RATIOS[1]

TIER	HABITAT TYPE	MITIGATION RATIOS
TIER I[2] **(rare uplands)**	Southern Foredunes Torrey Pines Forest Coastal Bluff Scrub Maritime Succulent Scrub Maritime Chaparral Scrub Oak Chaparral Native Grassland Oak Woodlands	Location of Preservation Location of Impact: Inside — Inside 2:1, Outside 3:1; Outside — Inside 1:1, Outside 2:1
TIER II[3] **(uncommon uplands)**	Coastal Sage Scrub (CSS) CSS/Chaparral	Location of Preservation Location of Impact: Inside — Inside 1:1, Outside 2:1; Outside — Inside 1:1, Outside 1.5:1
TIER IIIA[3] **(common uplands)**	Mixed Chaparral Chamise Chaparral	Location of Preservation Location of Impact: Inside — Inside 1:1, Outside 1.5:1; Outside — Inside 0.5:1, Outside 1:1
TIER IIIB[3] **(common uplands)**	Non-Native Grasslands[4]	Location of Preservation Location of Impact: Inside — Inside 1:1, Outside 1.5:1; Outside — Inside 0.5:1, Outside 1:1
TIER IV **(other uplands)**	Disturbed Land Agriculture Eucalyptus Woodland Ornamental Plantings	Location of Preservation Location of Impact: Inside — Inside 0:1, Outside 0:1; Outside — Inside 0:1, Outside 0:1

NOTES:

1. No mitigation would be required for impacts within the base development area (25%) occurring inside the MHPA. Mitigation for any impacts from development in excess of the 25% base development area for community plan public facilities or for projects processed through the deviation process would be required at the indicated ratios.

2. For all Tier I impacts, the mitigation could (1) occur within the MHPA portion of Tier I (in Tier) or (2) occur outside of the MHPA within the affected habitat type (in-kind).

3. For impacts to Tier II, III A and III B habitats, the mitigation could (1) occur within the MHPA portion of Tiers I – III (out-of-kind) or (2) occur outside of the MHPA within the affected habitat type (in-kind).

4. Mitigation for impacts to occupied burrowing owl habitat (at the subarea plan specified ratio) must be through the conservation of occupied burrowing owl habitat or conservation of lands appropriate for restoration, management, and enhancement of burrowing owl nesting and foraging requirements.

Impacts shall be mitigated in one of the following four equally suitable options pursuant to the City's Biology Guidelines: (1) off-site acquisition; (2) on-site preservation; (3) habitat restoration; or (4) monetary compensation. Implementation of habitat creation, restoration, enhancement, and/or preservation through an approved Habitat Mitigation and Monitoring Plan (HMMP) may utilize methods 1 through 3 listed above. Acquisition of approved mitigation credits, including approved City of San Diego (City) APRM sites or payment into the Habitat Acquisition Fund, may utilize methods 1 or 4.

Option 1: Prior to subsequent project level approval, as part of subsequent projects specific environmental review pursuant to CEQA, an HMMP shall be prepared and approved by the City, in accordance with the City of San Diego Municipal Code, Land Development Code—Biology Guidelines (SDBG). Mitigation shall conform with the SDBG, including definitions for preservation and/or restoration of Tier I-III uplands and satisfaction of mitigation ratios for sensitive uplands based on location of permanent loss, mitigation habitat relative to the Multi Habitat Planning Area (see Table 3 of the SDBG), and the protection and notice and management elements.

When proposed mitigation involves habitat restoration, the HMMP shall include the following information in addition to information required under Attachment B of the SDBG:

- Conceptual planting plan including planting zones, grading, and irrigation
- Seed mix/planting palette
- Planting specifications
- Monitoring program including success criteria
- Long-term maintenance and preservation plan
- For mitigation that involves habitat preservation or acquisition, the HMMP shall include the following:
  - Location of proposed acquisition
  - Description of the biological resources to be acquired, including support for the conclusion that the acquired habitat mitigates for the specific maintenance impact
  - Documentation that the mitigation area would be adequately preserved and maintained in perpetuity

Option 2: Preference shall be given for the purchase of mitigation credits for impacts to Tier II or III upland habitats at the Marron Valley Cornerstone Mitigation Bank. All allocations of mitigation site credits at the Marron Valley Cornerstone Mitigation Bank or another suitable mitigation bank, approved by the City's ED, shall include the following:

- A description of the location of the approved mitigation site and referenced on a map identifying the regional vicinity.
- Description of the mitigation credits to be acquired, including support for the conclusion that the acquired habitat mitigates for the specific maintenance impact. At a minimum, a description of the proposed habitat impacts, and the type (creation/restoration/ enhancement) and quantity of mitigation credits requested.
- Documentation that the credits are associated with a mitigation bank or APRM site that has been approved by the appropriate Resource Agencies
- Documentation in the form of a current mitigation credit ledger

Mitigation monies may also be deposited in the City's Habitat Acquisition Fund as mitigation acreage credit, based on the current estimate of land costs and administration, as approved by the City's ED.

MM-BIO-3 Biological Resource Protection During Construction

The following measures will be included in the construction plans for each program component that is within or adjacent to sensitive wetlands or sensitive uplands (Tier I–III):

Prior to Construction

A. **Biologist Verification** – Prior to the start of Project construction activities, the Project Biologist shall submit a letter to the City of San Diego (City) Environmental Designee (ED) that a Qualified Biologist, as defined in the City of San Diego's 2018 Biological Guidelines, has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project.

B. **Biological Documents** – Prior to the issuance of the Notice to Proceed and/or first preconstruction meeting, The Qualified Biologist shall submit all required documentation to the ED verifying that any special mitigation reports, including, but not limited to, maps, plans, surveys, survey timelines, or buffers, are completed or scheduled per City Biology Guidelines, Multiple Species Conservation Program (MSCP) Subarea Plan (SAP), Environmentally Sensitive Lands (ESL) Ordinance, project permit conditions; California

Environmental Quality Act (CEQA); endangered species acts (ESAs); and/or other local, state, or federal requirements.

Prior to the start of construction within or immediately adjacent to the Multi-Habitat Planning Area (MHPA), the ED shall verify that all MHPA boundaries and limits of work have been delineated on all construction documents.

C. **BCME** – Prior to the issuance of the Notice to Proceed and/or first preconstruction meeting, The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME), which includes the biological documents in C above. In addition, the BCME shall include the limits of work, proposed monitoring schedule, restoration/revegetation plans, plant salvage/relocation requirements, avian or other wildlife surveys/survey schedules (including general avian nesting and U.S. Fish and Wildlife Service [USFWS] protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/ barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the ED. The BCME shall include a site plan, a written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by the ED and referenced in the construction documents. The BCME shall be approved by the ED prior to the start of construction.

D. **Avian Protection Requirements** – To avoid any direct impacts to any species identified as a listed, candidate, sensitive, or special-status species in the MSCP SAP, removal of habitat that supports active nests of native species in the proposed area of disturbance shall occur outside of the breeding season for these species (February 1 to September 15). If removal of habitat in the proposed area of disturbance must occur during the breeding season, the Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the results of the pre-construction survey to the ED for review and approval prior to initiating any construction activities. If nesting bird activities are detected, a letter report in conformance with the City's Biology Guidelines (e.g., appropriate follow-up surveys, monitoring schedules, construction and noise barriers/buffers) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's ED and Biologist shall verify and approve that all measures identified in the report are in place prior to and/or during construction.

E. **Resource Delineation** – Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats and verify compliance with any other project conditions as shown on the BCME to ensure crews remain in the approved work areas. These demarcations will not be required for locations with existing structures, such as chain-link fencing, along the limits of work or areas that are adjacent to non-sensitive habitat areas. In-water work areas shall be buoyed off to limit the extent of direct impacts to eelgrass. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora and fauna species, including nesting birds) during construction. Appropriate care shall be taken to minimize attraction of nest predators to the site.

F. **Cover Trenches.** The qualified monitoring biologist shall oversee the construction site so that cover and/or escape routes for wildlife from excavated areas shall be provided daily. All steep trenches, holes, and excavations during construction shall be covered at night with backfill, plywood, metal plates, or other means, and if plastic sheeting is used, the edges must be covered with soils such that small wildlife cannot access the excavated hole. Soil piles shall be covered at night to prevent wildlife from burrowing in. The edges of the sheeting shall be weighed down by sandbags. These areas may also be fenced to prevent wildlife from gaining access. Exposed trenches, holes, and excavations shall be inspected twice daily (i.e., each morning and before sealing the exposed area) by the qualified monitoring biologist to monitor for wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route. The qualified monitoring biologist shall verify that the contractor

G. **Pre-Construction Meeting/Education** – Prior to construction, a pre-construction meeting shall be held on site with the following in attendance: the City's Project Manager (PM; or equivalent personnel), an Engineering & Capital Projects (ECP) Environmental representative, the Project Contractor (PC) (if applicable), and the Qualified Monitoring Biologist (QMB). At this meeting, the QMB shall identify and discuss the mitigation measures that apply to project activities and the sensitive nature of the adjacent habitat with the crew and PC.

At the pre-construction meeting, the QMB shall submit to the City ED and PM a copy of the BCME that identifies areas to be protected, fenced, and monitored. This data shall include all planned locations and design of noise attenuation walls or other devices, if applicable.

Prior to commencement of utility undergrounding activities, the QMB shall also meet with the PC and the construction crew and conduct an on-site educational session regarding the need to avoid impacts outside of the approved work area and to protect sensitive flora and fauna

that may occur at the project location (e.g., explain the avian and wetland buffers and the flag system for removal of invasive species or retention of sensitive plants and clarify acceptable access routes/methods and staging areas).

During Construction

H. **Monitoring & Reporting** – All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on "Exhibit A" and/or the BCME. The Qualified Biologist shall monitor construction activities as needed to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the pre-construction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR shall be emailed to the ED on the first day of monitoring, the first week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.

I. **Subsequent Resource Identification** – The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna on site (e.g., flag plant specimens for avoidance during access). If active nests or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species-specific local, state, or federal regulations have been determined and applied by the Qualified Biologist.

Post Construction

J. **Final Monitoring Report -** If no deviations from the approved construction plan occur during work, no additional documentation is required. If deviations from the approved construction plan do occur, such as unanticipated impacts to sensitive vegetation communities or unanticipated discharge of pollutants, a Final Monitoring Report shall be prepared within 30 days following the completion of mitigation monitoring efforts detailing construction and monitoring that occurred and any remedial or compensatory measures taken.

K. **Unintended Impact Mitigation -** In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City Biology Guidelines, ESL and MSCP SAP, State CEQA, and other applicable local, state, and federal laws. The Qualified Biologist shall submit a final BCME/report to the satisfaction of the ED within 30 days of construction completion.

MM-BIO-4 Species-Specific Sensitive Plant Mitigation

Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, any direct impacts to the following special-status plant species would require mitigation in the form of an approved Conceptual Restoration Plan that would be implemented if any of the following species are identified within the proposed construction area: coast woolly-heads, decumbent goldenbush, estuary seablite, Nuttall's lotus, aphanisma, Coulter's saltbush, south coast saltscale, golden-spined cereum, cliff spurge, Orcutt's pincushion, or Brand's phacelia.

The approved Conceptual Restoration Plan can be combined with the project Habitat Mitigation and Monitoring Plan and shall be prepared in accordance with Attachment B of the City's Biology Guidelines and implemented in accordance with the City's Biology Guidelines. The plan shall include:

- Provisions to salvage impacted plants for restoration following construction (i.e., transplantation), if feasible.
- Soil shall be salvaged and re-used within on-site or off-site restoration areas, where appropriate, to capture seed bank and/or transfer soil conditions.
- Seeds from impacted plants would be collected for grow-out and use in on-site or off-site restoration following construction, if feasible.
- Conceptual planting plan, including grading and temporary irrigation if necessary to create appropriate habitat conditions to support the species.
- Planting specifications (e.g., seed source, soil suitability, container size).
- Monitoring program including success criteria (e.g., a minimum number of sensitive plant individuals, a minimum percent cover of native species, a maximum percent cover of non-native species).
- Long-term maintenance and preservation plan (e.g., sensitive plant monitoring, fencing and signage, adaptive management actions, site security from trespass or vandalism).

MM-BIO-5 Eelgrass Mitigation

Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, focused eelgrass surveys shall be conducted within suitable habitat and in accordance with the California Eelgrass Mitigation Policy and Implementing Guidance (NOAA 2014). Where it is determined that eelgrass will be impacted by fill activities, an Eelgrass Mitigation and Monitoring Plan (Mitigation Plan) shall be prepared for review and approval by the National Oceanic and Atmospheric Administration's NMFS and the California Department of Fish and Wildlife (CDFW). The Mitigation Plan shall describe the approach for compensatory mitigation for the loss of eelgrass

habitat. Such mitigation shall be implemented in accordance with the NMFS California Eelgrass Mitigation Policy, including site selection; initial and long-term habitat area replacement ratios; methods for and timing of transplantation activities; and monitoring, performance, and reporting requirements. In addition, mitigation shall comply with City of San Diego's Biology Guidelines Table 2A (or the most current adopted guidelines at the time of review).

Preference shall be given to in-kind replacement of the eelgrass habitat. At a minimum, the no-net-loss creation mitigation (1:1) for eelgrass beds habitat shall be required to occur within Mission Bay itself per the Mission Bay Park Natural Resource Management Plan to the greatest extent feasible. Should in-kind mitigation within Mission Bay not be feasible, consideration shall be given to in-kind mitigation first in areas in close proximity to Mission Bay, then in locations within the Southern California region. If in-kind mitigation is not feasible, mitigation banks or in-lieu fee conservation programs shall be given preference over out-of-kind mitigation**.** All mitigation shall conform with the wetland restoration provisions of the City's Biology Guidelines.

MM-BIO-6 Grunion Monitoring and Avoidance Plan

As part of the subsequent project-specific environmental review pursuant to CEQA it shall be determined if project activities are necessary below the high tide line during the grunion spawning season (March 1 through August 31 of any year), the project site and a 100-foot buffer shall be surveyed for spawning grunion during high tide of a full or new moon for 3 nights, beginning with the nearest grunion run prior to commencement of sand placement activities. Monitoring shall be conducted by a qualified biologist and the California Department of Fish and Wildlife (CDFW) published dates for grunion runs should be utilized. Project activities below the high tide line shall not occur within the 4 days of a full or new moon event (see CDFW grunion run calendar). Grunion monitoring shall be conducted by a qualified biologist for 30 minutes prior to, and 2 hours following, the predicted start of each daily spawning event. Sufficient qualified biologists shall be employed to ensure that the entire proposed sand placement site is monitored during the predicted grunion run. Monitoring is not necessary in areas where there is no sand, such as areas supporting 100% cobble or marshlands with no sand exposed during high tide.

The magnitude and extent of a spawning event shall be defined in 300-foot segments of beach using the Walker Scale. Every individual fish (males and females) shall be counted each night (3 nights total), with the greatest numbers being utilized to determine the Walker Scale value (e.g., 0, 1, 2, 3, 4, or 5) of each 300-foot segment within the proposed work area. Project activities shall be modified according to the following plan:

If a grunion run consisting of 0–10 individual fish per 300-foot segment (Walker Scale 0) is reported within 2 weeks prior to, or during, project work, the Contractor does not need to take any avoidance

action for grunion eggs. No mature grunion may be intentionally buried or harmed as a result of project activities.

Within 2 weeks prior to proposed work, if a grunion run consisting of 10 or more individual fish per 300-foot segment (Walker Scale 1, 2, 3, 4, or 5) is reported, the Contractor shall avoid work on the respective beach segment(s) and truck route and additionally, shall avoid a 100-foot buffer on either side of the segment(s) and route for a minimum of 2 weeks, to ensure that no grunion eggs are buried or disturbed. These areas shall be memorialized through multiple GPS coordinates and marked with irrigation flags for a minimum of 2 weeks or when the next scheduled grunion run will be monitored. The Contractor shall adapt the project schedule to avoid operations on such beach segments and their associated buffers. No mature grunion may be intentionally harmed as a result of project activities.

If project activities have already commenced, and a grunion run consisting of 100 to 500 individual fish in one or more 300-foot segments (Walker Scale 2) in the work area is reported, the Contractor shall avoid impacts to grunion eggs to the greatest extent feasible and then shall minimize impacts to grunion eggs through such measures as alteration of the truck route, sediment discharge points, spreading areas, and placement locations.

If project activities have already commenced, and a grunion run consisting of 500 or more individual fish per segment (Walker Scale 3, 4, or 5) is reported, the Contractor shall avoid work on the respective beach segment(s) and truck route and additionally, shall avoid a 100-foot buffer on either side of the segment(s) and route for a minimum of 2 weeks, to ensure that no grunion eggs are buried or disturbed. These areas shall be memorialized through multiple GPS coordinates, and marked with irrigation flags for a minimum of 2 weeks when the next scheduled grunion run will be monitored. The Contractor shall adapt the project schedule to avoid operations on such beach segments and their associated buffers. No mature grunion may be intentionally harmed as a result of project activities.

MM-BIO-7 Caulerpa Management

Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, the City shall retain a certified *Caulerpa* surveyor as per NOAA Fisheries Certified Caulerpa Surveyors List to identify the potential existence of invasive *Caulerpa* spp. within the program component areas that have potential to support invasive *Caulerpa* spp., as identified during subsequent review and approvals, through surveys conducted in accordance with the Caulerpa Control Protocol: https://media.fisheries.noaa.gov/2021-12/caulerpacontrol-protocol-v5.pdf (October 2021) prior to construction in those Program component areas. Any sightings of *Caulerpa* spp. shall

be reported within 24 hours to CDFW (Caulerpa@wildlife.ca.gov) and the National Oceanic and Atmospheric Administration (NOAA) Fisheries at (562) 980-4037 and nmfs.wcr.caulerpa@noaa.gov.

MM-BIO-8 Avoidance of Listed Species Take

Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, an analysis of listed wildlife species that have a moderate or high potential to occur within or adjacent to individual components must be conducted. The analysis shall be based on life history and distribution of each species and presence of suitable habitat within or adjacent to the project and survey results collected through implementation of MM-BIO-1, to determine the applicability of measures below that shall be implemented.

MM-BIO-8A: Coastal California Gnatcatcher (CAGN)

Prior to any project pre-construction meeting associated with the Program, the Environmental Designee (ED) shall verify that Multi-Habitat Planning Area (MHPA) as well as any appropriate requirements regarding coastal California gnatcatcher, as specified below, are shown on the project's biological monitoring exhibit(s).

No construction activities shall occur within or adjacent to suitable habitat during the breeding seasons of coastal CAGN (March 1 to August 15) until the following requirements have been met to the satisfaction of the ED:

1. A Qualified Biologist (possessing a valid Endangered Species Act Section 10[a][1][a] Recovery Permit) shall survey those suitable habitat areas within the MHPA that would be subject to construction noise levels exceeding 60 A-weighted decibels (dBA) hourly average for the presence of CAGN. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service (USFWS) within the breeding season prior to the commencement of any construction. If CAGN is present, then the following conditions must be met:
    a. From March 1 through August 15, no clearing, grubbing, or grading of occupied habitat shall be permitted within the MHPA. Areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; and
    b. From March 1 through August 15 no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied habitat in the MHPA. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring

noise level experience with listed animal species) and approved by the ED at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; or

c. At least 2 weeks prior to the commencement of construction activities, under the direction of a Qualified Acoustician, attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed 60 dBA hourly average at the edge of habitat occupied by CAGN and located in the MHPA. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area in the MHPA to ensure that levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (August 16). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the ED, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

2. If CAGN are not detected during the protocol survey, the permitted biologist shall submit substantial evidence to the ED and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary between March 1 through August 15 and adherence to the following is required:

    a. If this evidence indicates that the potential is high for CAGN, to be present based on historical records or site conditions, then Condition 1(a) through 1(c) shall be adhered to as specified above.

    b. If this evidence concludes that no impacts to the applicable species are anticipated, no additional mitigation measures would be necessary.

MM-BIO-8B Least Bell's Vireo (LBV)

Prior to any project pre-construction meeting associated with the Program, Environmental Designee (ED) verify that appropriate requirements regarding LBV, as specified below, are shown on the project's biological monitoring exhibit(s).

No construction activities shall occur within or adjacent to suitable habitat during the breeding seasons of LBV (March 15 to September 15) until the following requirements have been met to the satisfaction of the ED:

1. A Qualified Biologist (possessing a valid Endangered Species Act Section 10[a][1][a] Recovery Permit) shall survey those habitat areas that would be subject to construction noise levels exceeding 60 A-weighted decibels (dBA) hourly average for the presence of LBV. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service (USFWS) within the breeding season prior to the commencement of any construction. If LBV is present, then the following conditions must be met:
    a. From March 15 through September 15 no clearing, grubbing, or grading of occupied habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; and
    b. From March 15 through September 15 no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied habitat. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the ED at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; or
    c. At least 2 weeks prior to the commencement of construction activities, under the direction of a Qualified Acoustician, attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed 60 dBA hourly average at the edge of habitat occupied by LBV. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified

Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the ED, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

2. If LBV are not detected during the protocol survey, the permitted biologist shall submit substantial evidence to the ED and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary between March 15 through September 15 and adherence to the following is required:

    a. If this evidence indicates that the potential is high for LBV to be present based on historical records or site conditions, then Condition 1(a) through 1(c) shall be adhered to as specified above.

    b. If this evidence concludes that no impacts to the applicable species are anticipated, no additional mitigation measures would be necessary.

MM-BIO-8C: California Least Tern (CLT)/Western Snowy Plover (WSP)

In order to prevent impacts to CLT and WSP, no clearing, grubbing or grading, or active wetland creation/restoration shall take place within or adjacent to the MHPA, CLT preserves as identified in the current Mission Bay Park Natural Resources Management Plan at the time of construction, or coastal salt marsh habitats during the City's general avian breeding season of February 1 to September 15.

Additionally, the following requirements from the Mission Bay Park Natural Resource Management Plan (City of San Diego 1990) and Mission Bay Park Master Plan Update (City of San Diego 2002) for the CLT shall be met:

1. In-water construction or dredging shall not be permitted in Mission Bay from April 1 through September 15, unless otherwise approved in writing by the City of San Diego, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service. Any exception would have to meet the following criteria to preserve least tern nesting and foraging: use of silt curtains or similar devices around in-water construction activity, use of noise reduction or low noise

equipment, and use of timing and location restrictions on activity to avoid interfering with breeding sites or major least tern foraging areas.

2. Direct impacts to permanently designated least tern nesting sites shall not be permitted.
3. The 150-foot buffer zone for each least tern nesting site shall be free of structures with heights over 6 feet, including fencing, to avoid providing raptors perches from which to prey on CLT chicks.
4. Any existing noise attenuation berms to prevent any significant noise from reaching the Multi-Habitat Planning Area and CLT preserve shall remain in accordance with the Mission Bay Park Natural Resource Management Plan and Mission Bay Park Master Plan.
5. If construction activities take place during the CLT breeding season, significant impacts may occur to least tern in the Multi-Habitat Planning Area. To avoid significant noise impacts to breeding least terns, construction within 500 feet of least tern preserves shall take place outside the least tern breeding season, which ranges from April 1 to September 15.

Additionally, the following requirements for the CLT shall be met:

1. Beginning April 1 and ending September 15, a CLT biologist shall monitor daily for the arrival of CLTs into Mission Bay, and immediately notify the USFWS upon their arrival. Notification to the USFWS shall occur via email on a daily basis as to the presence or absence of least terns in Mission Bay. The CLT biologist shall be present throughout the period of in-water construction and will note the present of CLTs in Mission Bay and the work area.
2. A biological monitoring with CLT experience shall be present on all days when in-water work is conducted after least terns arrive in Mission Bay. The biological monitor shall be present throughout the period of in-water construction and shall note the presence of CLTs in Mission Bay and the work area, and any project-generated surface turbidity. Surface turbidity is defined as an obvious discoloration of the top 10 feet of the water column visible to the human eye. Project-generated surface turbidity shall not exceed 500 feet in length or width, or persist long than 1 hour.
3. The biological monitoring shall provide daily field reports to the ED and USFWS within 24 hours of each monitoring date. The daily field reports shall include photographs showing the best management practices surrounding the work area taken during in-water work, and any incidences of plume escape or expansion outside of the silt curtain. The biological monitoring shall also submit a final summary report of monitoring to the ED and USFWS within 30 days of completion of in-water work.

In addition, if work is proposed where CLT or WSP has a moderate or high potential to nest, a USFWS and CDFW-approved biologist will perform the following duties prior to the start of construction of those program component areas:

1. The USFWS-CDFW biologist shall survey those suitable habitat areas that would be subject to construction noise levels exceeding 60 dBA hourly average for the presence of CLT and/or WSP. As required by species, surveys shall be conducted pursuant to any approved protocol survey guidelines established by USFWS, CDFW or other authorized agency within the breeding season prior to the commencement of any construction. If CLT and/or WSP are determined to be present, then the following conditions must be met:

    a. From March 1 to September 15 for WSP and April 1 to September 15 for CLT, no clearing, grubbing, or grading of occupied habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist. No construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied habitat. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the Environmental Designee (ED) at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; or

    b. At least 2 weeks prior to the commencement of construction activities, under the direction of a Qualified Acoustician, attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed 60 dBA hourly average at the edge of habitat occupied by CLT and/or WSP. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the

ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the ED, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

2. If CLT and/or WSP are not detected during the required survey(s), the permitted biologist shall submit substantial evidence to the ED and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary during the specific breeding seasons for these species, and adherence to the following is required:

    a. If this evidence indicates that the potential is high for CLT and/or WSP to be present based on historical records or site conditions, then Condition 1(a) through 1(c) shall be adhered to as specified above.

    b. If this evidence concludes that no impacts to this species are anticipated, no additional mitigation measures would be necessary.

MM-BIO-8D: Light-footed Ridgway's Rail and Belding's Savannah Sparrow (LFRR/BSS)

if work is proposed where light-footed Ridgway's rail (LFRR) or Belding's savannah sparrow (BSS) has a moderate or high potential to nest, a USFWS (for LFRR only) and CDFW (for LFRR and BSS) approved biologist will perform the following duties prior to the start of construction of those Program component areas:

1. The approved biologist shall survey those suitable habitat areas that would be subject to construction noise levels exceeding 60 dBA hourly average for the presence of LFRR and/or BSS. As required by species, surveys shall be conducted pursuant to any approved protocol survey guidelines established by USFWS, CDFW or other authorized agency within the breeding season prior to the commencement of any construction. If LFRR and/or BSS are determined to be present, then the following conditions must be met:

    a. From March 1 to September 15 for LFRR and February 1 to August 1 for BSS, no clearing, grubbing, or grading of occupied habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; and

    b. From March 1 to September 15 for LFRR and February 1 to August 1 for BSS, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied habitat. An analysis showing that noise generated by construction activities

would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the Environmental Designee (ED) at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; or

c. At least 2 weeks prior to the commencement of construction activities, under the direction of a Qualified Acoustician, attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed 60 dBA hourly average at the edge of habitat occupied by LFRR and/or BSS. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16 for LFRR and August 2 for BSS). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the ED, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

2. If LFRR and/or BSS are not detected during the required survey(s), the permitted biologist shall submit substantial evidence to the ED and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary during the specific breeding seasons for these species, and adherence to the following is required:

    a. If this evidence indicates that the potential is high for LFRR and/or BSS to be present based on historical records or site conditions, then Condition 1(a) through 1(c) shall be adhered to as specified above.

    b. If this evidence concludes that no impacts to this species are anticipated, no additional mitigation measures would be necessary.

MM-BIO-8E: Western Burrowing Owl (BUOW)

Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, it shall be determined If work is proposed at a project location where BUOW have been identified during subsequent review to have a moderate or high potential to occur, the following species-specific mitigation measure is required.

Prior to issuance of any construction permits, the Environmental Designee (ED) shall verify that the following project requirements regarding BUOW are shown on the construction plans and/or included in the contract specifications:

Prior to Permit or Notice to Proceed Issuance:

1. As program component areas have been determined to have BUOW occupation potential, the Applicant Department or Permit Holder shall submit evidence to the Environmental Designee (ED) and MSCP SAP staff, to the satisfaction of the City, verifying that a Biologist possessing qualifications pursuant to the California Department of Fish and Game (CDFG) 2012 Staff Report on BUOW Mitigation (hereafter referred as the CDFG 2012 Staff Report) has been retained to implement a BUOW construction impact avoidance program.
2. The qualified BUOW biologist (or their designated biological representative) shall attend the pre-construction meeting to inform construction personnel about the City's BUOW requirements and subsequent survey schedule.

Prior to Start of Construction:

1. The Applicant Department or Permit Holder and Qualified Biologist must ensure that initial pre-construction/take avoidance surveys of the component construction "site" are completed between 14 and 30 days before initial construction activities, including brushing, clearing, grubbing, or grading of the site, regardless of the time of the year. "Site" means the component construction site and the area within a radius of 450 feet of the component construction site. A report detailing the results of the surveys shall be submitted and approved by the Wildlife Agencies (i.e., USFWS and the California Department of Fish and Wildlife [CDFW]) and/or City MSCP SAP staff prior to construction or BUOW eviction(s) and shall include maps of the component site and BUOW locations on aerial photos.
2. The pre-construction survey shall follow the methods described in the CDFG 2012 Staff Report Appendix D.
3. 24 hours prior to commencement of ground-disturbing activities, the Qualified Biologist shall verify results of pre-construction/take avoidance surveys via review of the Survey Report (see

report requirements in CDFG 2012, Staff Report – Appendix D 3) that is to be provided to the City and Wildlife Agencies. Written verification via the Survey Report shall be provided to the City's ECP ED and MSCP SAP sections, and to the satisfaction of these sections. If results of the pre-construction surveys have changed and BUOW are present in areas not previously identified, immediate notification to the City and Wildlife Agencies shall be provided prior to ground-disturbing activities.

During Construction:

1. Best management practices shall be employed, as BUOWs are known to use open pipes, culverts, excavated holes, and other burrow-like structures at construction sites. Legally permitted active construction projects that are occupied by BUOW and have followed all protocol in this mitigation section, or sites within 450 feet of occupied BUOW areas, shall undertake measures to discourage BUOWs from recolonizing previously occupied areas or colonizing new portions of the site. Such measures include, but are not limited to, ensuring that the ends of all pipes and culverts are covered when they are not being worked on and covering rubble piles, dirt piles, ditches, and berms.
2. Ongoing BUOW detection – If BUOWs or active burrows are not detected during the pre-construction surveys, Section "A" below shall be followed. IF BUOWS OR BURROWS ARE DETECTED DURING THE PRE-CONSTRUCTION SURVEYS, SECTION "B" SHALL BE FOLLOWED. NEITHER THE MSCP SUBAREA PLAN NOR THIS MITIGATION SECTION ALLOWS FOR ANY BUOWS TO BE INJURED OR KILLED OUTSIDE **OR** WITHIN THE MHPA; IN ADDITION, IMPACTS TO BUOWS WITHIN THE MHPA MUST BE AVOIDED.

   A. Post-Survey Follow-Up if BUOWs and/or Signs of Active Natural or Artificial Burrows Are Not Detected During the Initial Pre-Construction Survey – Monitoring the site for new burrows is required using the protocol in CDFG 2012 Staff Report Appendix D for the period following the initial pre-construction survey, until construction is scheduled to be complete and is complete. *(NOTE: Using a projected completion date [that is amended if needed] will allow development of a monitoring schedule that adheres to the required number of surveys in the detection protocol.)*

      i) If no active burrows are found but BUOWs are observed to occasionally (1–3 sightings) use the site for roosting or foraging, they shall be allowed to do so with no changes in the construction or construction schedule.

      ii) If no active burrows are found but BUOWs are observed, during follow-up monitoring or repeatedly (4 or more sightings), using the site for roosting or foraging, the ED shall be notified, and any portion of the site where owls have

been sighted and that has not been graded or otherwise disturbed shall be avoided until further notice.

iii) If a BUOW begins using a burrow on the site at any time after the initial pre-construction survey, procedures described in Section "b" must be followed.

iv) Any actions other than these require the approval of the City and the Wildlife Agencies.

B. Post-Survey Follow Up if BUOWs and/or Active Natural or Artificial Burrows Are Detected During the Initial Pre-Construction Survey – Monitoring the site for new burrows is required using the protocol in CDFG 2012 Staff Report Appendix D for the period following the initial pre-construction survey, until construction is scheduled to be complete and is complete. (*NOTE: Using a projected completion date [that is amended if needed] will allow development of a monitoring schedule that adheres to the required number of surveys in the detection protocol.)* This section (B) applies only to sites (including biologically defined territory) wholly outside of the MHPA; ALL DIRECT AND INDIRECT IMPACTS TO BUOWS WITHIN THE MHPA SHALL BE AVOIDED.

i) If one or more BUOWs are using any burrows (including pipes, culverts, debris piles, etc.) on or within 300 feet of the proposed construction area, the ED and MSCP SAP staff shall be immediately contacted. The City's ED and MSCP SAP staff shall contact the Wildlife Agencies regarding eviction/collapsing burrows and enlist the appropriate City biologist for ongoing coordination with the Wildlife Agencies and the qualified consulting BUOW biologist. No construction shall occur within 300 feet of an active burrow without written concurrence from the Wildlife Agencies. This distance may increase or decrease, depending on the burrow's location in relation to the site's topography, and other physical and biological characteristics.

a) Outside the Breeding Season – If the BUOW is using a burrow on site outside the breeding season (i.e., September 1 to January 31), the BUOW may be evicted after the qualified BUOW biologist has determined via fiber optic camera or other appropriate device, that no eggs, young, or adults are in the burrow. Eviction requires preparation of an Exclusion Plan prepared in accordance with CDFG 2012 Staff Report Appendix E (or most recent guide available) for review and submittal to the Wildlife Agencies. Written concurrence from the Wildlife Agencies is required prior to Exclusion Plan implementation.

b) During Breeding Season – If a BUOW is using a burrow on site during the breeding season (February 1 to August 31), construction shall not occur within 300 feet of the burrow until the young have fledged and are no longer dependent on the

burrow, at which time the BUOWs can be evicted. Eviction requires preparation of an Exclusion Plan prepared in accordance with CDFG 2012 Staff Report, Appendix E (or most recent guidance available) for review and submittal to Wildlife Agencies and City of San Diego (ECP ED and MSCP SAP). Written concurrence from the Wildlife Agencies prior to Exclusion Plan implementation.

C. Survey Reporting During Construction – Details of construction surveys and evictions (if applicable) conducted shall be immediately (within 5 working days or sooner) reported to the ECP ED, MSCP SAP staff, and the Wildlife Agencies and must be provided in writing (as by email) and acknowledged to have been received by the required Wildlife Agencies and ECP staff member(s).

Post Construction:

1. Details of all the surveys and actions undertaken on site with respect to BUOWs (e.g., occupation, eviction, locations) shall be reported to the ECP ED and the Wildlife Agencies within 21 days post-construction. This report must include summaries of all previous reports for the site and maps of the site and BUOW locations on aerial photos.

MM-BIO-8F: Crotch's Bumble Bee

Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA,, it shall be determined if work is proposed at a Program component location where Crotch's bumble bee have been identified during subsequent review to have a moderate or high potential to occur, the following species-specific mitigation measure is required to minimize the potential for take of this state candidate endangered species. Should this species no longer be a state candidate for listing or state listed as threatened or endangered at the time of the pre-construction meeting or protocol surveys are completed and determine the species is absent from the Program component site, then this mitigation measures shall not be required.

1. Prior to the issuance of a Notice to Proceed (NTP) for any construction, the City's Environmental Designee (ED) shall review and approve construction documents (plans, specification, details, etc.) to ensure the applicable mitigation monitoring and reporting program (MMRP) requirements are incorporated into the design.

    a. To avoid impacts on Crotch's bumble bee, removal of habitat in the proposed area of disturbance must occur outside of the Colony Active Period between April 1 and August 31. If the removal of habitat in the proposed area of disturbance must occur during the Colony Active Period, a Qualified Biologist shall conduct a pre-activity survey no more than 3 days prior to the initiation of construction activities to

determine the presence or absence of Crotch's bumble bee within the proposed area of disturbance.

b. Surveys must be conducted by a Qualified Biologist meeting the qualifications discussed in the CDFW guidance (i.e., Survey Considerations for CESA Candidate Bumble Bee Species, dated June 6, 2023).

c. The pre-activity survey shall consist of photographic surveys following CDFW guidance (i.e., Survey Considerations for CESA Candidate Bumble Bee Species, dated June 6, 2023). In coordination with CDFW, the Qualified Biologist may be required to send all photo vouchers to a CDFW-approved taxonomist to confirm the identifications of the bumble bees encountered during surveys. The surveys shall consist of passive methods unless a Memorandum of Understanding is obtained from CDFW. If additional activities (e.g., capture or handling) are deemed necessary to identify bumble bees of an unknown species that may be Crotch's bumble bee, then the Qualified Biologist shall obtain the required authorization via a Memorandum of Understanding or Scientific Collecting Permit pursuant to the CDFW 2023 Survey Considerations for CESA Candidate Bumble Bee Species. Survey methods that involve lethal take of species are not acceptable. Survey results will be considered valid until the start of the next colony active period.

d. If pre-activity surveys identify Crotch's bumble bee individuals on site, the Qualified Biologist shall notify and consult with CDFW to establish, monitor, and maintain no-work buffers around the associated floral resources or nest, as appropriate. The size and configuration of the no-work buffer shall be based on the best professional judgment of the Qualified Biologist in consultation with CDFW. Construction activities shall not occur within the no-work buffers until the bees appear no longer active (i.e., associated floral resources appear desiccated and no bees are seen flying for three consecutive days indicating dispersal from the area).

e. If Crotch's bumble bee are identified during species-specific surveys, the City shall pursue an Incidental Take Permit from CDFW. Take of any endangered, threatened, or candidate species that results from the project is prohibited, except as authorized by state law (California Fish and Game Code Sections 86, 2062, 2067, 2068, 2080, 2085; 14 CCR 786.9) under the California Endangered Species Act (CESA). Mitigation for direct impacts to Crotch's bumble bee will be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the project, or as otherwise determined through the Incidental Take Permit process.

f. Survey data shall be submitted by the Qualified Biologist to the California Natural Diversity Database (CNDDB) in accordance with the Memorandum of Understanding with CDFW, or Scientific Collecting Permit requirements, as applicable.

MM-BIO-8G: CDFW Fully Protected Species

Take of CDFW fully protected species including white-tailed kite, light-footed Ridgway's rail, and California least tern may not occur except with take permit authorization from CDFW, and only under specific circumstances. Light-footed Ridgway's rail and California least tern are also listed as endangered by USFWS and would require federal take authorization if take is unavoidable.

If work is proposed at a component location where fully protected species have been identified during subsequent review to have a moderate or high potential, focused wildlife surveys would be required.

1. Prior to the issuance of any NTP, or pre-construction meeting, the ECP ED shall verify that the following project requirements regarding the fully protected species are shown on the construction plans where such construction occurs within suitable habitat for these species:

   A. Impacts to fully protected species shall be fully avoided. For construction sites that support suitable habitat for fully protected species, a qualified biologist shall remain on site during all vegetation clearing and perform periodic site inspections (1–2 times/week) during grading and vegetation removal activities. Should a fully protected species nest be detected, a buffer of a minimum of 500 feet shall be established, and no activity shall occur within the buffer zone until the biologist determines and CDFW confirms that all chicks have fledged and are no longer reliant on the nest site.

MM-BIO-8H: Marine Mammals and Green Sea Turtles

Prior to subsequent project-level approval, as part of subsequent project-specific environmental review pursuant to CEQA, a hydroacoustic study would be required to determine if components that require in-water pile driving have the potential to generate sound exposure levels exceeding the thresholds described in Table 4.2-39.

Table 4.2-39
Summary of Potentially Significant In-Water Sound Pressure Level Impacts

	Impact Threshold for Marine Fish (206 dB peak and 187 dB accumulated SEL)	Impact Threshold for Marine Mammals (160 dB_{rms} for impact; 120 dB_{rms} for vibratory)	Impact Threshold for Green Sea Turtles (166 dB_{rms})
Assumed Component Noise Levels (>5 meters of water)	Potentially Significant Hydroacoustic Impacts		
76–188 dB_{peak}	No	N/A	N/A
146–166 dB_{SEL}	Maybe[1]	N/A	N/A
166–176 dB_{rms}	N/A	Yes	Yes

Source: M&A 2017.
Notes: dB = decibel; SEL = sound exposure level; rms = root mean square; N/A = not applicable.
[1] Accumulated SEL is derived from the number of pile strikes ($SEL_{cumulative}$ = SEL + 10*log [# strikes]) as such, the starting SEL would dictate the number of pile strikes possible prior to exceeding the threshold of 187dB $SEL_{cumulative}$.

Should pile driving be found to result in sound exposure levels that would cause indirect hydroacoustic impacts on marine species through exceedance of approved thresholds in Table 4.2-39, the following measures shall be followed, or similar measures as may be required by the National Marine Fisheries Service (NMFS):

A. Employ protected species observers (PSO). PSOs must be qualified, NMFS-approved PSOs.

B. Monitoring must take place from 30 minutes prior to initiation of pile driving activity (i.e., pre-start clearance monitoring) through 30 minutes post-completion of pile driving activity.

C. Pre-start clearance monitoring must be conducted during periods of visibility sufficient for the lead PSO to determine that the shutdown zones (as determined by hydroacoustic analysis) are clear of marine mammals and green sea turtles. Pile driving may commence following 30 minutes of observation when the determination is made that the shutdown zones are clear of marine mammals.

D. If a marine mammals or green sea turtles are observed entering or within the shutdown zones, pile driving activity must be delayed or halted.

E. If pile driving is delayed or halted due to the presence of a marine mammal or green sea turtle, the activity may not commence or resume until either the animal has voluntarily

exited and been visually confirmed beyond the shutdown zone or 15 minutes have passed without re-detection of the animal.

F. Use soft start techniques when impact pile driving. Soft start requires contractors to provide an initial set of three strikes at reduced energy, followed by a 30-second waiting period, then two subsequent reduced energy strike sets. A soft start must be implemented at the start of each day's impact pile driving and at any time following cessation of impact pile driving for a period of 30 minutes or longer.

G. Noise attenuation: a bubble curtain must be used during impact pile driving. The bubble curtain must be operated as necessary to achieve optimal performance. At a minimum, the following performance standards shall be met:

   i. The bubble curtain must distribute air bubbles around 100 percent of the piling circumference for the full depth of the water column.

   ii. The lowest bubble ring must be in contact with the substrate for the full circumference of the ring, and the weights attached to the bottom ring shall ensure 100 percent substrate contact. No parts of the ring or other objects shall prevent full substrate contact.

   iii. Air flow to the bubblers must be balanced around the circumference of the pile.

      a. Construction staff must avoid direct physical interaction with marine mammals or green sea turtle during construction activity. If a marine mammal or green sea turtle comes within 10 meters of such activity, operations must cease and vessels must reduce speed to the minimum level required to maintain steerage and safe working conditions, as necessary to avoid direct physical interaction.

4.2.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Issue 1: Sensitive Species

Implementation of EP-BIO-1, EP-LU-1, MM-BIO-1, MM-BIO-2a, MM-BIO-2b, MM-BIO-3, and MM-BIO-4 would ensure that special-status plant species mapping and impact assessments are current, prior to implementation, and that significant direct impacts to MSCP SAP-covered and non-covered special-status plant species are reduced through design avoidance and minimization, construction monitoring and reporting, and restoration of suitable habitat and, where required, specific populations of special-status plant species. Because the timing of restoration implementation and program component phasing is undetermined, direct impacts to special-status plant species are **significant and unavoidable.**

Implementation of EP-BIO-1, EP-BIO-2. EP-WQ-1, EP-LU-1, MM-BIO-1a-g, MM-BIO-2a, MM-BIO-2b, MM-BIO-3, and MM-BIO-8a-h would ensure that mapping and impact assessments of direct and

indirect impacts to listed wildlife species (CAGN, CLT, WSP, BUOW, LBV, green sea turtle, and Crotch's bumble bee) and protected marine mammals are current, prior to implementation, and that significant direct impacts from 1) habitat impacts are reduced through design avoidance and minimization, including MSCP SAP and NRMP conformance; 2) breeding season impacts and/or direct injury or harm to wildlife are reduced through construction monitoring and reporting, including specific survey requirements such as focused surveys and documentation of the results from the qualified biologist; 3) adverse edge conditions and other direct and indirect impacts to habitat during construction would be reduced through biological monitoring and reporting and construction BMPs; and 4) unavoidable direct impacts to suitable habitat are mitigated through restoration of suitable habitat. Based on these reductions, direct and indirect impacts to listed wildlife species and protected marine mammals during construction (i.e., direct harm to individuals) would be reduced to **less than significant.** Because the timing of restoration implementation and program component phasing is undetermined, direct impacts to listed wildlife species from potential temporal loss of suitable habitat are **significant and unavoidable.**

Implementation of EP-BIO-1, EP-BIO-2. EP-WQ-1, EP-LU-1, MM-BIO-1, MM-BIO-2a, MM-BIO-2b, MM-BIO-3, and MM-BIO-8 would ensure that habitat mapping and impact assessments of direct impacts to non-listed special-status wildlife species (including MSCP SAP-covered and non-covered species, breeding and non-breeding avian species, invertebrate species, and reptiles) are current, prior to implementation, and that significant direct impacts from 1) habitat impacts are reduced through design avoidance and minimization, including MSCP SAP and NRMP conformance; 2) breeding season impacts are reduced through construction monitoring and reporting; 3) adverse edge conditions and other direct and indirect impacts to habitat during construction would be reduced through biological monitoring and reporting and construction BMPs; and 4) unavoidable direct impacts to suitable habitat are mitigated through restoration of suitable habitat. Based on these reductions, direct impacts to non-listed wildlife species during construction (i.e., direct harm to individuals) would be reduced to **less than significant.** Because the timing of restoration implementation and program component phasing is undetermined, direct impacts to non-listed wildlife species from potential temporal loss of suitable habitat are **significant and unavoidable.**

Issue 2: Sensitive Habitats

Implementation of EP-BIO-1, EP-LU-1, MM-BIO-2a, MM-BIO-2b, and MM-BIO-3 would ensure that mapping and impact assessments of special-status vegetation communities are current, prior to implementation, and that significant direct impacts to special-status vegetation communities are reduced through design avoidance and minimization, construction monitoring and reporting, and restoration of native vegetation communities/habitats. Because the timing of restoration implementation and program component phasing is undetermined, direct impacts to special-status vegetation communities are **significant and unavoidable.**

Issue 3: Wetlands

Implementation of EP-BIO-1, EP-LU-1, MM-BIO-2a, MM-BIO-3, and MM-BIO-5 would ensure that mapping and impact assessments of jurisdictional aquatic resources are current, prior to implementation, and that significant direct impacts to jurisdictional aquatic resources are reduced through design avoidance and minimization, construction monitoring and reporting, and restoration of native vegetation communities/habitats. Because the timing of restoration implementation and program component phasing is undetermined, direct impacts to jurisdictional aquatic resources are **significant and unavoidable.**

Issue 4: Wildlife Movement and Nursery Sites

Implementation of EP-BIO-1, EP-LU-1, MM-BIO-2a, MM-BIO-2b, MM-BIO-3, MM-BIO-6, and MM-BIO-7 would ensure that significant direct impacts to wildlife movement and nursery sites (grunion spawning areas) are reduced through design avoidance and minimization, construction monitoring and reporting, including measures to prevent the spread of invasive *Caulerpa*, and restoration of native vegetation communities/habitats. Based on these reductions, direct impacts to wildlife movement and nursery sites during construction would be reduced to **less than significant.** Because the timing of restoration implementation and program component phasing is undetermined, direct impacts to wildlife movement and nursery sites from potential temporal loss of suitable habitat are **significant and unavoidable.**

Issue 5: Conservation Planning

Implementation of EP-BIO-1, EP-LU-1, MM-BIO-2a, MM-BIO-2b, MM-BIO-3, and MM-BIO-8 would ensure that mapping and impact assessments of MSCP SAP-covered species and habitats are current, prior to implementation, and that significant direct impacts to MSCP SAP are reduced through design avoidance and minimization, compliance with the MSCP SAP and NRMP, construction monitoring and reporting, and restoration of native vegetation communities/habitats. Based on these measures, components would only be implemented following review for MSCP SAP and NRMP conformance which would avoid conflicts with the MSCP SAP. However, because the timing of restoration implementation and program component phasing is undetermined, direct impacts from the potential temporal loss of covered habitats in the MSCP SAP are **significant and unavoidable.**

Issue 6: Multi-Habitat Planning Area Edge Effects

The Program would not result in significant impacts under this issue area.

Issue 7: Local Policies/Ordinances

The Program would not result in significant impacts under this issue area.

Issue 8: Invasive Species

Implementation of EP-BIO-1, EP-LU-1, MM-BIO-3, and MM-BIO-7 would ensure that Program components do not result in the introduction of invasive species of plants into natural open space areas and would reduce this impact to **less than significant.**

SOURCE: SANGIS 2023

DUDEK

0 900 1,800 Feet

FIGURE 4.2-1

Mission Bay Park Improvements Program Overview and Elements Locations

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SOURCE: SANGIS 2023, 2025; CNDDB 2025

DUDEK

0 900 1,800 Feet

FIGURE 4.2-2

CNDDB Results

Mission Bay Park Improvements Program EIR

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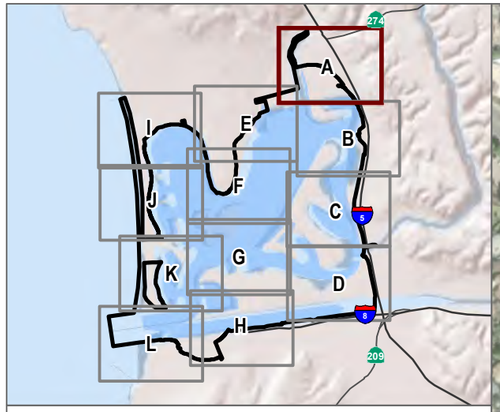

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Bicycle and Pedestrian Improvements

MHPA

Special-Status Plant Survey Area

Special-status Plants

Coulter's goldfields

San Diego marsh-elder

Estuary seablite

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-3A

Special-Status Plant Species

Mission Bay Park Improvements Program EIR

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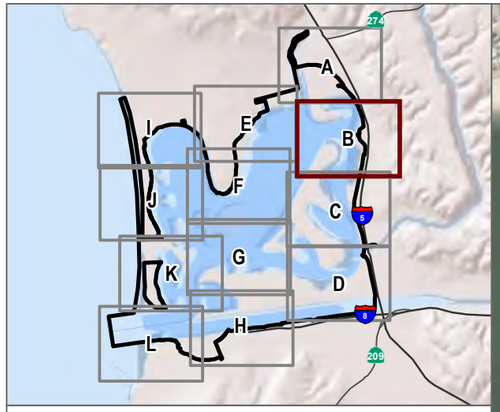

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Wetland and Water Quality Improvements

Upland Habitat and Preserve Expansion

MHPA

Special-Status Plant Survey Area

Special-status Plants

Nuttall's lotus

Coast woolly-heads

Estuary seablite

Fiesta Island No. 4 - California Least Tern Preserve

North Fiesta Island

Fiesta Island No. 2 - North Central

North Fiesta Island Stockpile Option 1

Cudahy Creek Wetland

MORENA

CLAIREMONT

MISSION BAY

5

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-3B

Special-Status Plant Species

Mission Bay Park Improvements Program EIR

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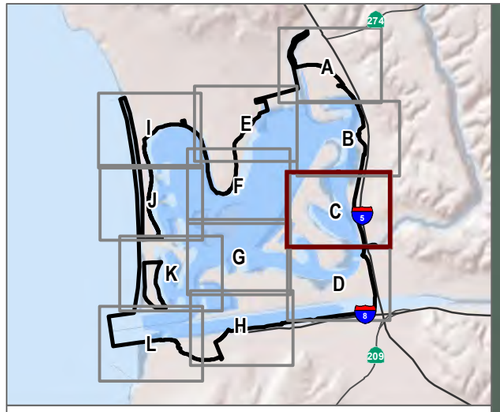

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Wetland and Water Quality Improvements

Upland Habitat and Preserve Expansion

MHPA

Special-Status Plant Survey Area

Special-status Plants

Nuttall's lotus

Coast woolly-heads

Decumbent goldenbush

Estuary seablite

North Fiesta Island Stockpile Option 1

Fiesta Island No. 2 - North Central

Fiesta Island No. 3 - Near Youth Camping

North Fiesta Island Stockpile Option 3

Fiesta Island No. 1 - South

North Fiesta Island Stockpile Option 2

Tecolote Creek and Fiesta Island Causeway

MISSION BAY

MORENA

TECOLOTE

5

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-3C

Special-Status Plant Species

Mission Bay Park Improvements Program EIR

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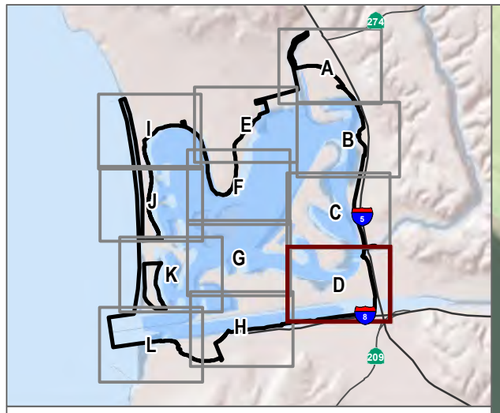

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Wetland and Water Quality Improvements

Upland Habitat and Preserve Expansion

Bicycle and Pedestrian Improvements

MHPA

Special-Status Plant Survey Area

Special-status Plants

Nuttall's lotus

Coast woolly-heads

Estuary seablite

North Fiesta Island Stockpile Option 2

Tecolote Creek and Fiesta Island Causeway

Fiesta Island No. 1 - South

Fiesta Island Causeway Path

SeaWorld Drive/San Diego River Site No. 5c - South Shores East Area

SeaWorld Drive/San Diego River Site No. 5b - Triangle Restoration Area

San Diego River

San Diego River

MISSION BAY

SEA WORLD

PACIFIC

TECOLOTE

MORENA

FRIARS

HANCOCK

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-3D

Special-Status Plant Species

Mission Bay Park Improvements Program EIR

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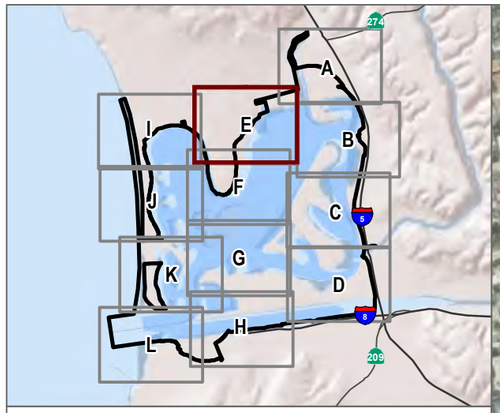

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

MHPA

Special-Status Plant Survey Area

Special-status Plants

Nuttall's lotus

Palmer's frankenia

San Diego barrel cactus

Estuary seablite

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-3E

Special-Status Plant Species

Mission Bay Park Improvements Program EIR

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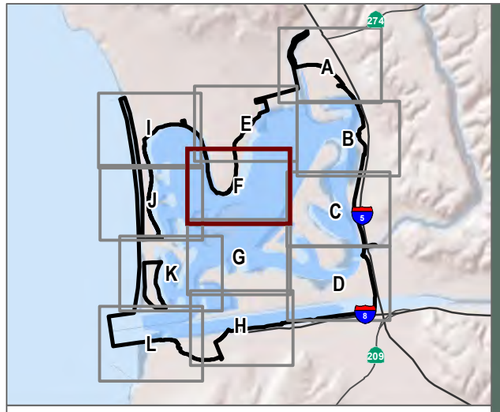

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Wetland and Water Quality Improvements

Restoration of Shoreline

MHPA

Special-Status Plant Survey Area

Special-status Plants

Nuttall's lotus

Coast woolly-heads

Estuary seablite

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-3F

Special-Status Plant Species

Mission Bay Park Improvements Program EIR

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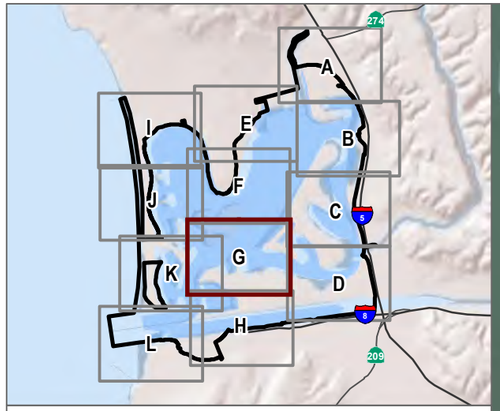

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Wetland and Water Quality Improvements

Restoration of Shoreline

MHPA

Special-Status Plant Survey Area

Special-status Plants

Nuttall's lotus

Coast woolly-heads

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-3G

Special-Status Plant Species

Mission Bay Park Improvements Program EIR

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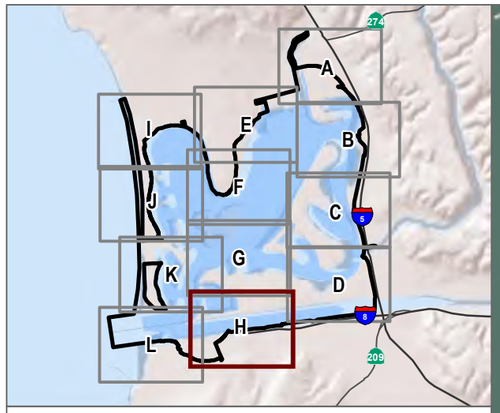

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Upland Habitat and Preserve Expansion

Bicycle and Pedestrian Improvements

MHPA

Special-Status Plant Survey Area

Special-status Plants

Nuttall's lotus

Estuary seablite

SeaWorld Drive/San Diego River Site No. 5a - Cloverleaf Area

Ocean Beach Bike Path

San Diego River

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-3H

Special-Status Plant Species

Mission Bay Park Improvements Program EIR

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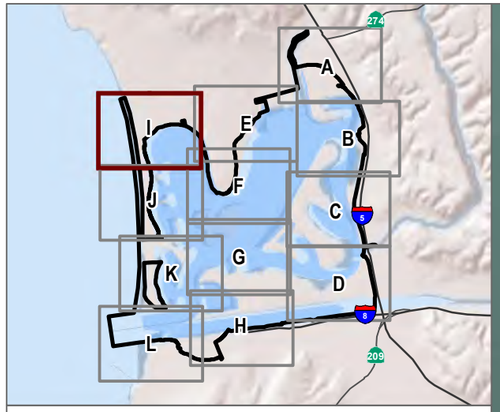

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Restoration of the Seawall Bulkhead

Restoration of Shoreline

Special-Status Plant Survey Area

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-3I

Special-Status Plant Species

Mission Bay Park Improvements Program EIR

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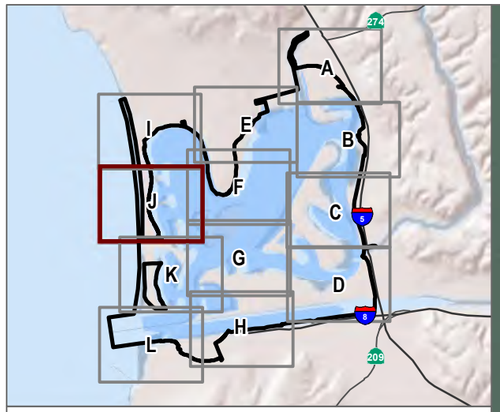

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Restoration of the Seawall Bulkhead

Restoration of Shoreline

Special-Status Plant Survey Area

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-3J

Special-Status Plant Species

Mission Bay Park Improvements Program EIR

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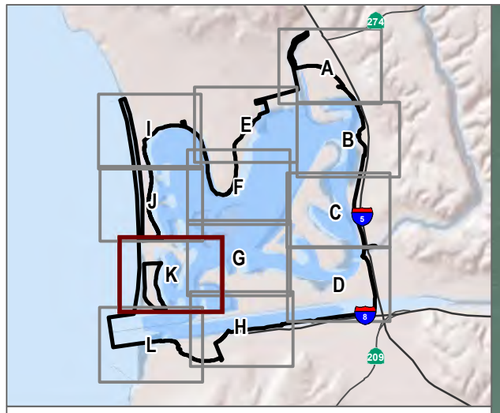

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Restoration of the Seawall Bulkhead

Restoration of Shoreline

MHPA

Special-Status Plant Survey Area

Special-status Plants

Nuttall's lotus

Coast woolly-heads

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-3K

Special-Status Plant Species

Mission Bay Park Improvements Program EIR

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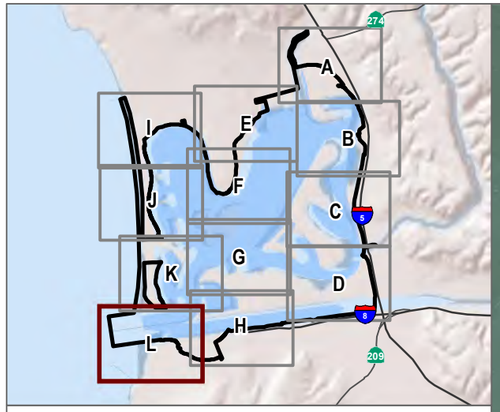

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Bicycle and Pedestrian Improvements

MHPA

Special-Status Plant Survey Area

Special-status Plants

Nuttall's lotus

beach goldenaster

Coast woolly-heads

Decumbent goldenbush

Estuary seablite

Salt marsh bird's-beak

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-3L

Special-Status Plant Species

Mission Bay Park Improvements Program EIR

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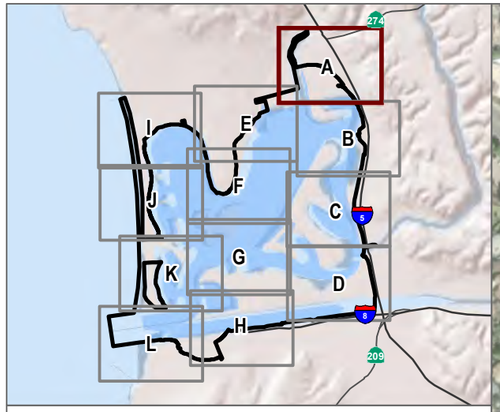

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Bicycle and Pedestrian Improvements

Balk Special-status Wildlife

- Osprey
- White-faced ibis

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-4A

Sensitive Wildlife Species Observations

Mission Bay Park Improvements Program EIR

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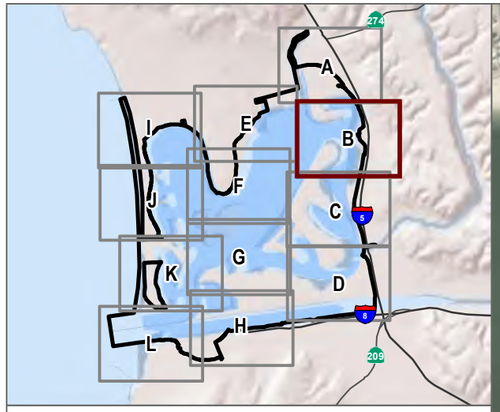

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Wetland and Water Quality Improvements

Upland Habitat and Preserve Expansion

Balk Special-status Wildlife

- California least tern
- Northern harrier
- Redhead

Jackson Special-status Wildlife

- California least tern

Fiesta Island No. 4 - California Least Tern Preserve

North Fiesta Island

Fiesta Island No. 2 - North Central

North Fiesta Island Stockpile Option 1

Cudahy Creek Wetland

MORENA

CLAIREMONT

MISSION BAY

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-4B

Sensitive Wildlife Species Observations

Mission Bay Park Improvements Program EIR

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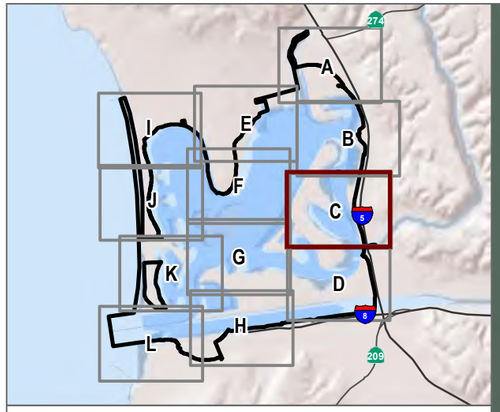

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Wetland and Water Quality Improvements

Upland Habitat and Preserve Expansion

Balk Special-status Wildlife

Belding's savannah sparrow

California least tern

Western burrowing owl

City of San Diego Special-status Wildlife

Western burrowing owl

North Fiesta Island Stockpile Option 1

Fiesta Island No. 2 - North Central

Fiesta Island No. 3 - Near Youth Camping

North Fiesta Island Stockpile Option 3

Fiesta Island No. 1 - South

North Fiesta Island Stockpile Option 2

Tecolote Creek and Fiesta Island Causeway

MISSION BAY

MORENA

TECOLOTE

5

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-4C

Sensitive Wildlife Species Observations

Mission Bay Park Improvements Program EIR

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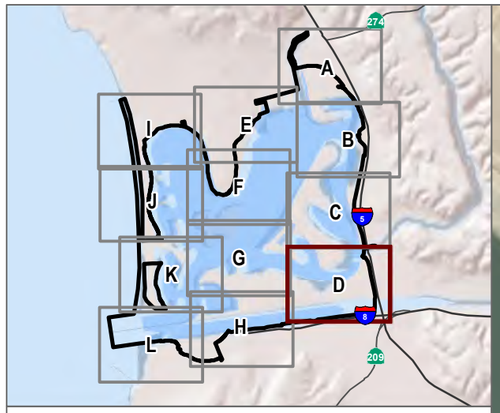

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Wetland and Water Quality Improvements

Upland Habitat and Preserve Expansion

Bicycle and Pedestrian Improvements

Balk Special-status Wildlife

- Belding's savannah sparrow
- Double-crested cormorant
- California horned lark
- White-tailed kite

City of San Diego Special-status Wildlife

- Belding's savannah sparrow
- Western burrowing owl

North Fiesta Island Stockpile Option 2

Tecolote Creek and Fiesta Island Causeway

Fiesta Island No. 1 - South

Fiesta Island Causeway Path

SeaWorld Drive/San Diego River Site No. 5c - South Shores East Area

SeaWorld Drive/San Diego River Site No. 5b - Triangle Restoration Area

San Diego River

San Diego River

MISSION BAY

MISSION BAY

SEA WORLD

SEA WORLD

SEA WORLD

SEA WORLD

PACIFIC

PACIFIC

PACIFIC

PACIFIC

PACIFIC

PACIFIC

PACIFIC

PACIFIC

FRIARS

FRIARS

FRIARS

FRIARS

TECOLOTE

TECOLOTE

MORENA

MORENA

HANCOCK

5

8

209

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-4D

Sensitive Wildlife Species Observations

Mission Bay Park Improvements Program EIR

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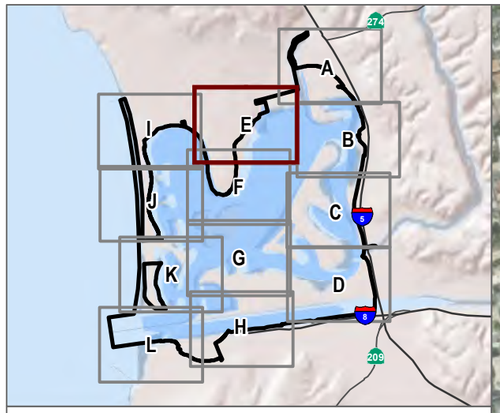

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Balk Special-status Wildlife

- Belding's savannah sparrow
- California gull
- Brant
- Elegant tern
- Long-billed curlew
- Western snowy plover

City of San Diego Special-status Wildlife

- Belding's savannah sparrow

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-4E

Sensitive Wildlife Species Observations

Mission Bay Park Improvements Program EIR

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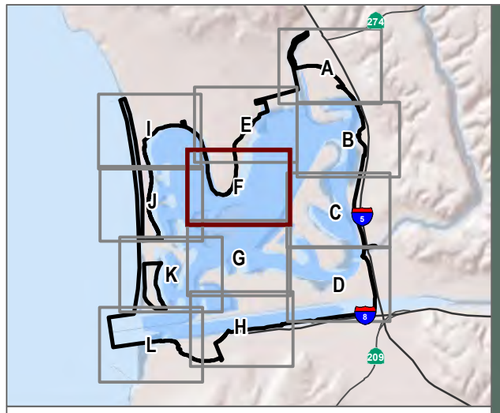

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Wetland and Water Quality Improvements

Restoration of Shoreline

Balk Special-status Wildlife

California least tern

Jackson Special-status Wildlife

California least tern

City of San Diego Special-status Wildlife

Snowy Plover

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-4F

Sensitive Wildlife Species Observations

Mission Bay Park Improvements Program EIR

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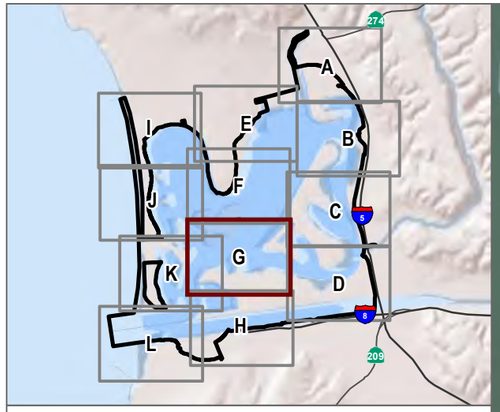

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Wetland and Water Quality Improvements

Restoration of Shoreline

Balk Special-status Wildlife

- Black skimmer
- California brown pelican
- White-tailed kite

Jackson Special-status Wildlife

- California least tern

City of San Diego Special-status Wildlife

- Belding's savannah sparrow
- Western burrowing owl
- California least tern

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-4G

Sensitive Wildlife Species Observations

Mission Bay Park Improvements Program EIR

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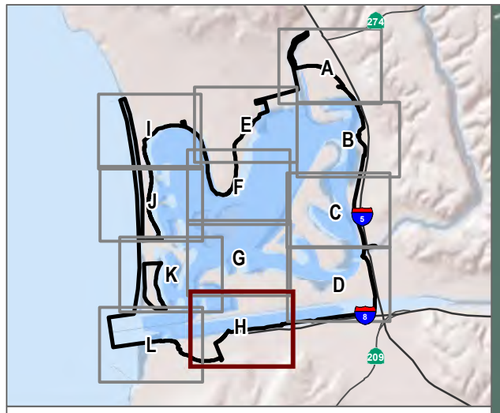

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Upland Habitat and Preserve Expansion

Bicycle and Pedestrian Improvements

Balk Special-status Wildlife

- American white pelican
- California least tern
- Cooper's hawk
- Osprey
- Reddish egret

City of San Diego Special-status Wildlife

- Belding's savannah sparrow
- Western burrowing owl
- California least tern
- Light-footed Rail
- Snowy Plover

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-4H

Sensitive Wildlife Species Observations

Mission Bay Park Improvements Program EIR

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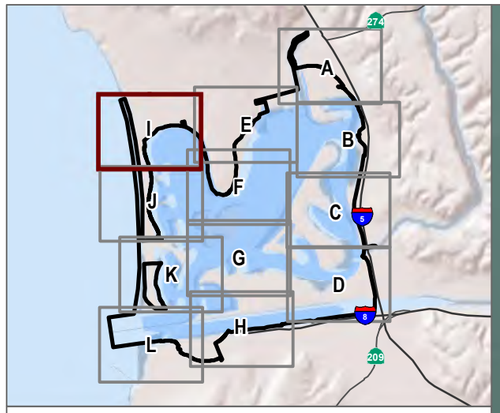

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Restoration of the Seawall Bulkhead

Restoration of Shoreline

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-4I

Sensitive Wildlife Species Observations

Mission Bay Park Improvements Program EIR

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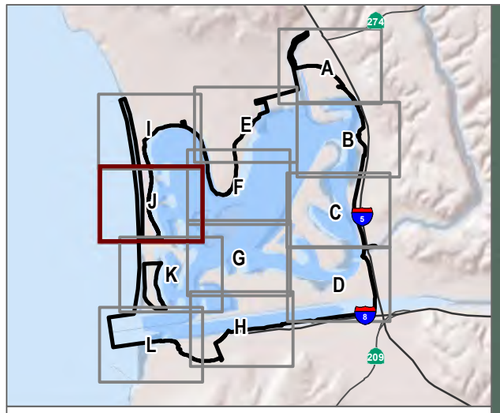

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Restoration of the Seawall Bulkhead

Restoration of Shoreline

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-4J

Sensitive Wildlife Species Observations

Mission Bay Park Improvements Program EIR

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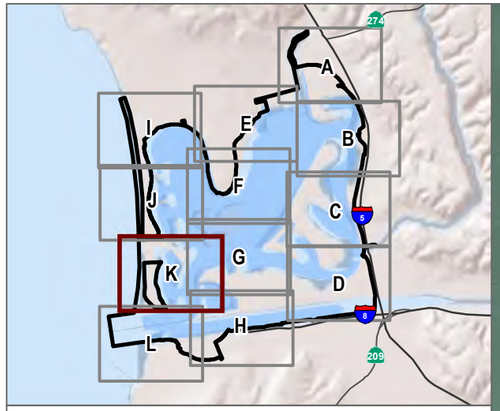

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Restoration of the Seawall Bulkhead

Restoration of Shoreline

Balk Special-status Wildlife

- California least tern
- California brown pelican
- Long-billed curlew
- Western snowy plover
- White-tailed kite

Jackson Special-status Wildlife

- California least tern

City of San Diego Special-status Wildlife

- Belding's savannah sparrow
- Western burrowing owl
- California least tern
- Snowy Plover

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-4K

Sensitive Wildlife Species Observations

Mission Bay Park Improvements Program EIR

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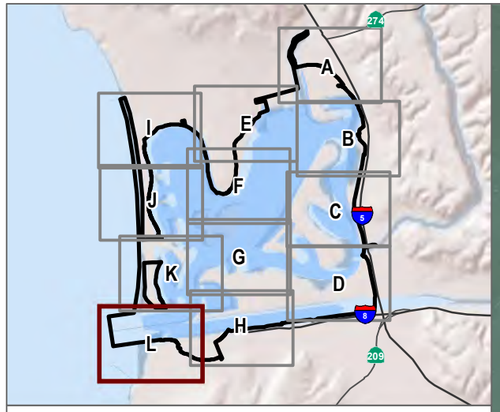

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Bicycle and Pedestrian Improvements

Balk Special-status Wildlife

- American white pelican
- American peregrine falcon
- Belding's savannah sparrow
- California gull
- California least tern
- Cooper's hawk
- Double-crested cormorant
- Elegant tern
- California horned lark
- Osprey
- Western snowy plover

City of San Diego Special-status Wildlife

- Belding's savannah sparrow
- Western burrowing owl
- California least tern
- Light-footed Rail
- Snowy Plover

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-4L

Sensitive Wildlife Species Observations

Mission Bay Park Improvements Program EIR

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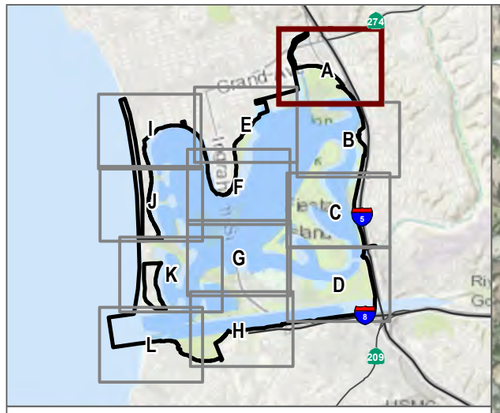


- Bicycle and Pedestrian Improvements
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Eelgrass
- Vegetation Communities/Land Covers

Bog and Marsh

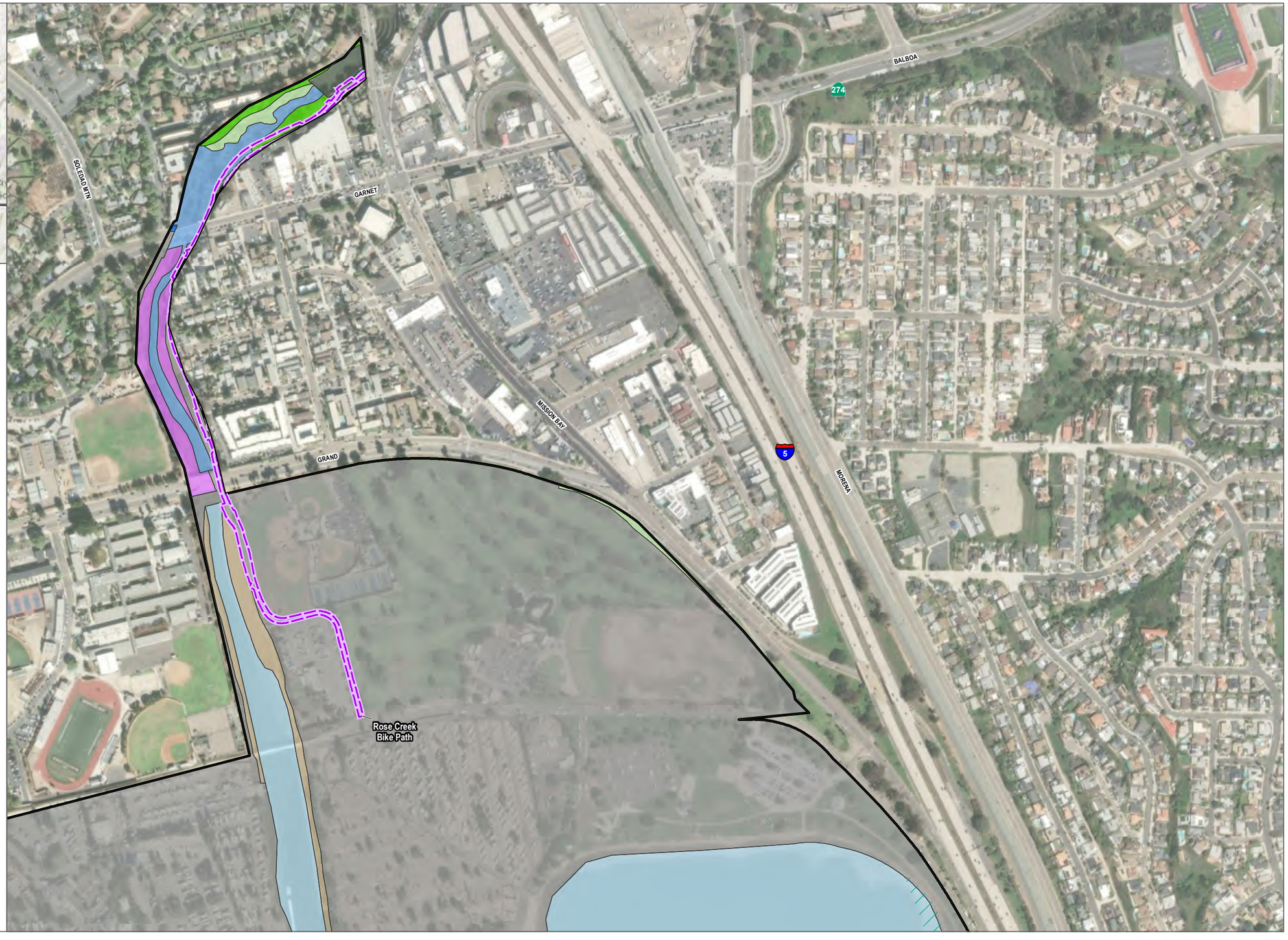
- Coastal and Valley Freshwater Marsh
- Disturbed Coastal and Valley Freshwater Marsh
- Southern Coastal Salt Marsh

Disturbed or Developed

- Urban/Developed
- Disturbed Wetland (Arundo)

Riparian and Bottomland Habitat

- Disturbed Southern Willow Scrub
- Non-Native Riparian
- Open Water
- Saltpan/Mudflats



SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-5A

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program

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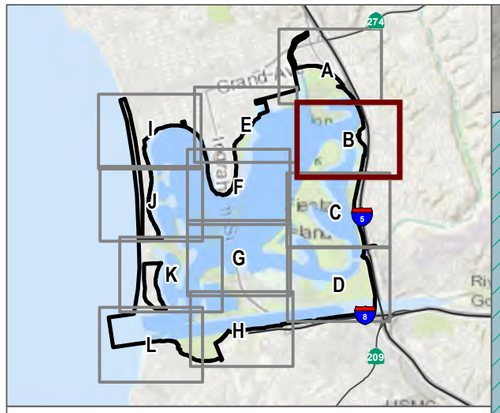

- Wetland and Water Quality Improvements
- Upland Habitat and Preserve Expansion
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Eelgrass
- Vegetation Communities/Land Covers

Bog and Marsh

- Disturbed Southern Coastal Salt Marsh

Disturbed or Developed

- Urban/Developed
- Disturbed Habitat

Dunes

- Southern Foredunes

Riparian and Bottomland Habitat

- Beach
- Open Water
- Saltpan/Mudflats
- Shallow Bay
- Unvegetated Habitat

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-5B

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program

INTENTIONALLY LEFT BLANK

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-5C

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program

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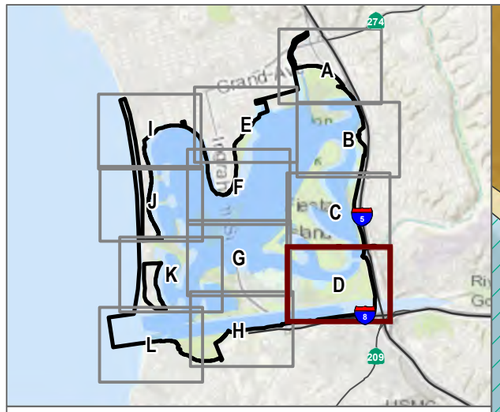

- Wetland and Water Quality Improvements
- Upland Habitat and Preserve Expansion
- Bicycle and Pedestrian Improvements
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Eelgrass
- Vegetation Communities/Land Covers

Bog and Marsh
- Coastal Brackish Marsh
- Southern Coastal Salt Marsh

Disturbed or Developed
- Urban/Developed
- Disturbed Habitat

Riparian and Bottomland Habitat
- Beach
- Intertidal Estuary
- Non-Native Riparian
- Open Water
- Shallow Bay

Scrub and Chaparral
- Diegan Coastal Sage Scrub
- Disturbed Diegan Coastal Sage Scrub

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-5D

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program

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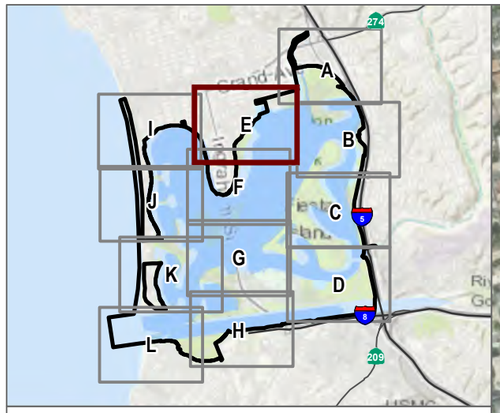

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Eelgrass

Vegetation Communities/Land Covers

Bog and Marsh

Southern Coastal Salt Marsh

Disturbed or Developed

Urban/Developed

Disturbed Habitat

Dunes

Southern Foredunes

Riparian and Bottomland Habitat

Beach

Open Water

Saltpan/Mudflats

Tidal Channel

Scrub and Chaparral

Diegan Coastal Sage Scrub

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-5E

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program

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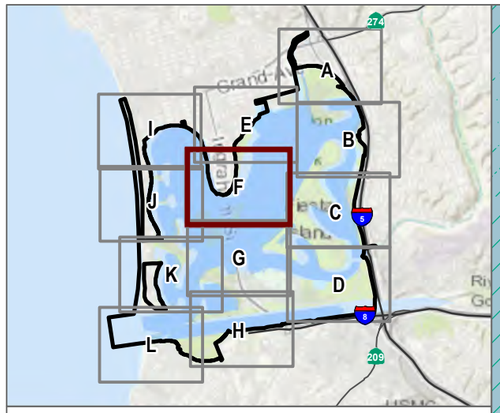

- Wetland and Water Quality Improvements
- Restoration of Shoreline
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Eelgrass
- Vegetation Communities/Land Covers

Disturbed or Developed

- Urban/Developed
- Disturbed Habitat

Riparian and Bottomland Habitat

- Beach
- Open Water
- Saltpan/Mudflats

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-5F

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program

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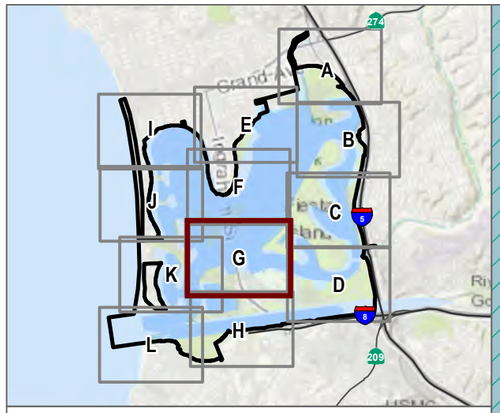


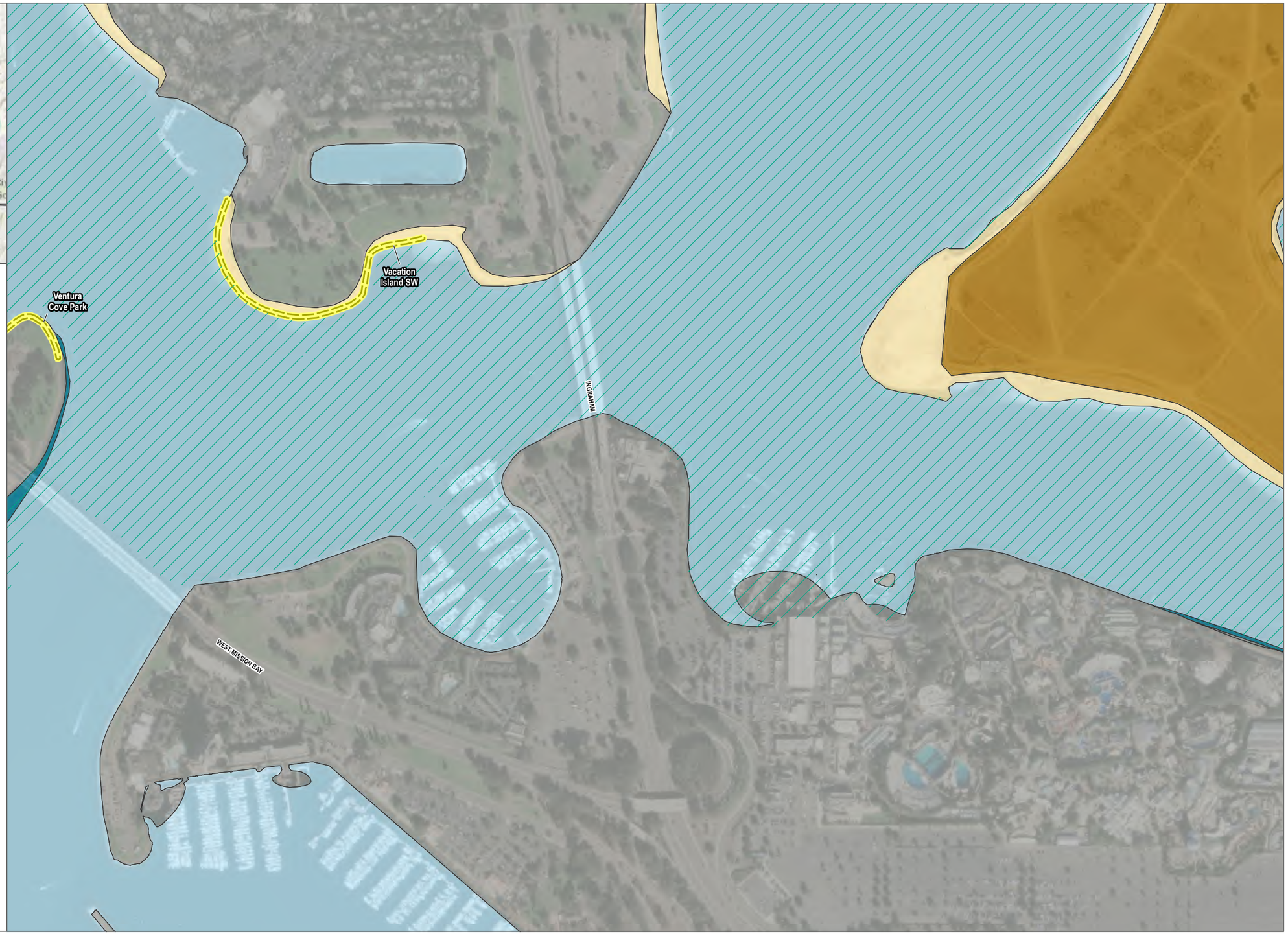
- Wetland and Water Quality Improvements
- Restoration of Shoreline
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Eelgrass
- Vegetation Communities/Land Covers

Disturbed or Developed

- Urban/Developed
- Disturbed Habitat

Riparian and Bottomland Habitat

- Beach
- Open Water
- Shallow Bay



SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-5G

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program

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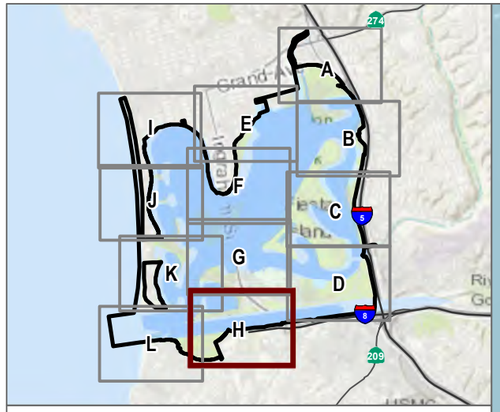


- Upland Habitat and Preserve Expansion
- Bicycle and Pedestrian Improvements
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Eelgrass
- Vegetation Communities/Land Covers

Bog and Marsh

- Southern Coastal Salt Marsh

Disturbed or Developed

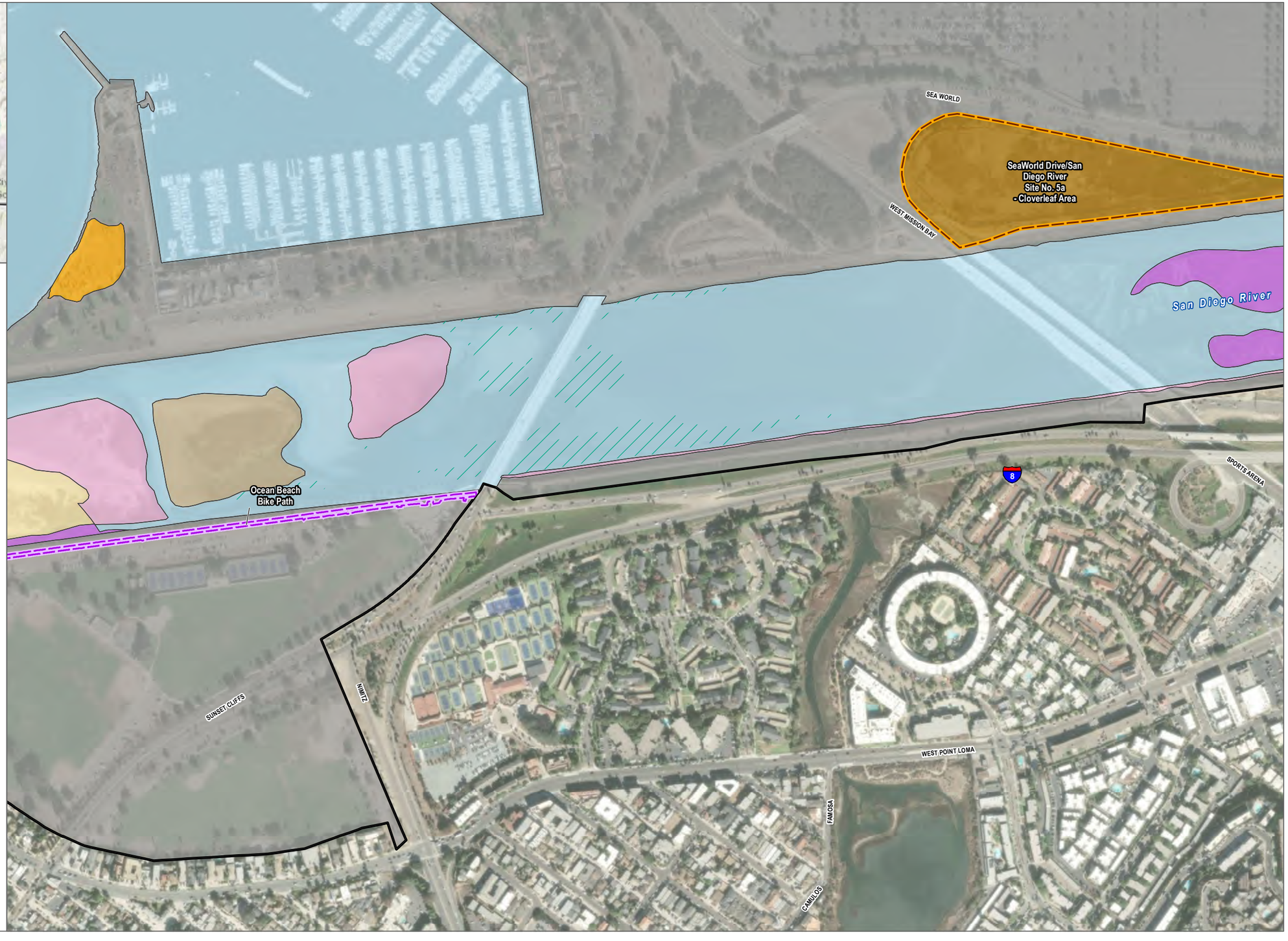
- Urban/Developed
- Disturbed Habitat

Riparian and Bottomland Habitat

- Beach
- Intertidal Estuary
- Open Water
- Saltpan/Mudflats

Scrub and Chaparral

- Diegan Coastal Sage Scrub



SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-5H

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program

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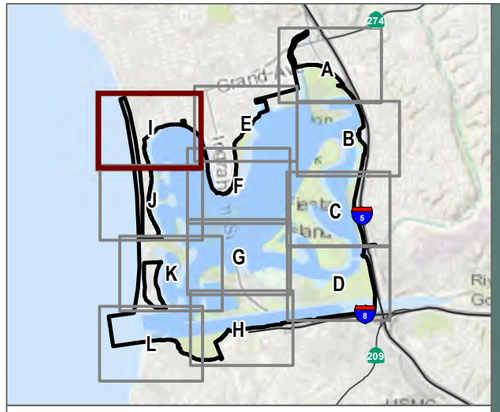

- Restoration of the Seawall Bulkhead
- Restoration of Shoreline
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Eelgrass
- Vegetation Communities/Land Covers

Disturbed or Developed

- Urban/Developed

Riparian and Bottomland Habitat

- Beach
- Open Water

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-5I

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program

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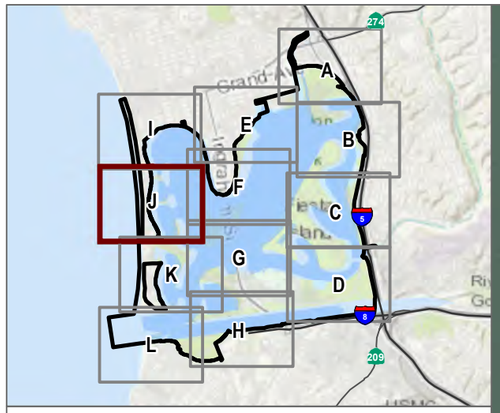

- Restoration of the Seawall Bulkhead
- Restoration of Shoreline
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Eelgrass
- Vegetation Communities/Land Covers

Disturbed or Developed

- Urban/Developed

Riparian and Bottomland Habitat

- Beach
- Open Water

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-5J

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program

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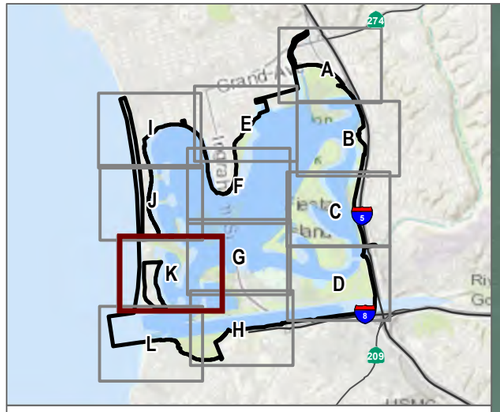

- Restoration of the Seawall Bulkhead
- Restoration of Shoreline
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Eelgrass
- Vegetation Communities/Land Covers

Disturbed or Developed

- Urban/Developed

Riparian and Bottomland Habitat

- Beach
- Open Water
- Shallow Bay

Scrub and Chaparral

- Diegan Coastal Sage Scrub

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-5K

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program

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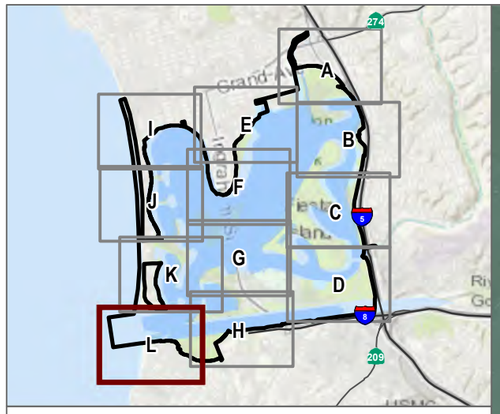


- Bicycle and Pedestrian Improvements
- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Vegetation Communities/Land Covers

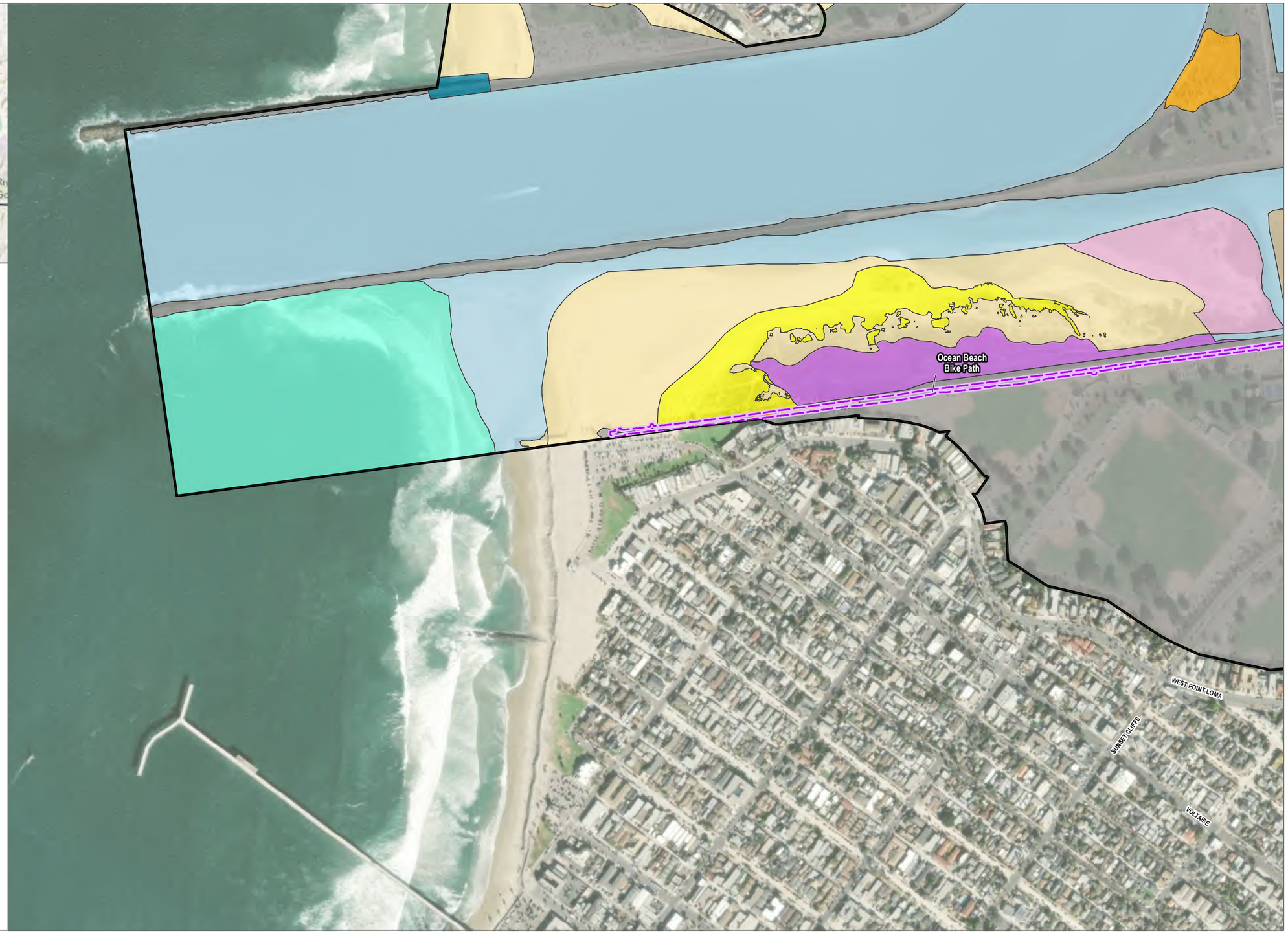
Bog and Marsh
- Southern Coastal Salt Marsh

Disturbed or Developed
- Urban/Developed

Dunes
- Southern Foredunes

Riparian and Bottomland Habitat
- Beach
- Intertidal Estuary
- Open Water
- Saltpan/Mudflats
- Shallow Bay
- Subtidal

Scrub and Chaparral
- Diegan Coastal Sage Scrub



SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

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FIGURE 4.2-5L

Vegetation Communities/Eelgrass

Mission Bay Park Improvements Program

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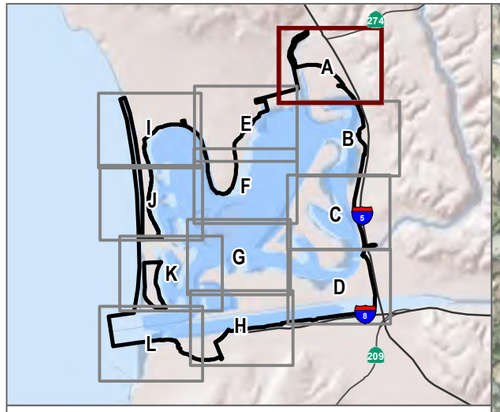

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Bicycle and Pedestrian Improvements

Jurisdictional Delineation

- USACE/RWQCB/CDFW/CCC/City
- USACE/RWQCB/CDFW/City
- USACE/RWQCB/CCC/City
- CDFW/CCC/City
- CDFW/City

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

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FIGURE 4.2-6A

Potential Jurisdictional Waters of the U.S. and State

Mission Bay Park Improvements Program EIR

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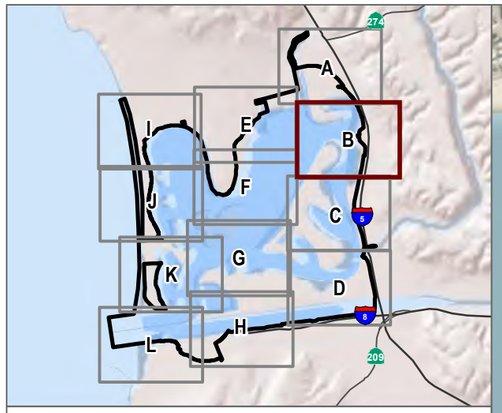

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Wetland and Water Quality Improvements

Upland Habitat and Preserve Expansion

Jurisdictional Delineation

USACE/RWQCB/CDFW/CCC/City

USACE/RWQCB/CCC/City

RWQCB/CCC/City

Fiesta Island No. 4 - California Least Tern Preserve

North Fiesta Island

Fiesta Island No. 2 - North Central

North Fiesta Island Stockpile Option 1

Cudahy Creek Wetland

MORENA

CLAIREMONT

MISSION BAY

5

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-6B

Potential Jurisdictional Waters of the U.S. and State

Mission Bay Park Improvements Program EIR

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SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-6C

Potential Jurisdictional Waters of the U.S. and State

Mission Bay Park Improvements Program EIR

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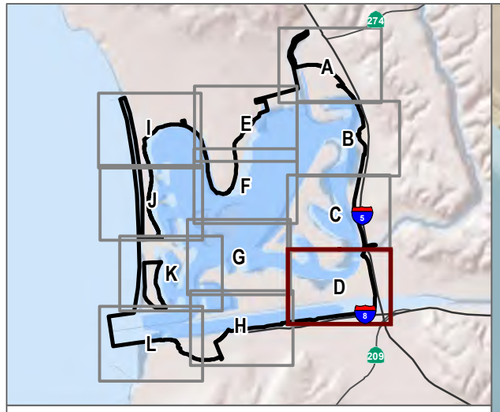

- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Wetland and Water Quality Improvements
- Upland Habitat and Preserve Expansion
- Bicycle and Pedestrian Improvements

Jurisdictional Delineation

- USACE/RWQCB/CDFW/CCC/City
- USACE/RWQCB/CCC/City
- CDFW/CCC/City

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-6D

Potential Jurisdictional Waters of the U.S. and State

Mission Bay Park Improvements Program EIR

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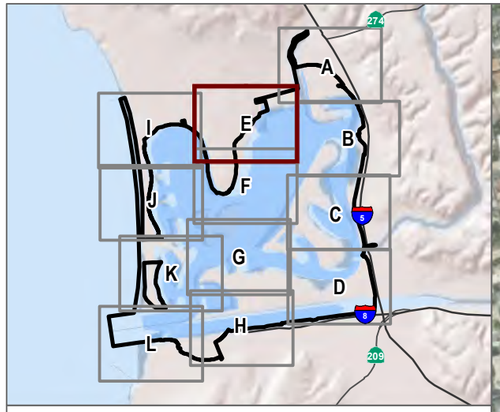

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Jurisdictional Delineation

USACE/RWQCB/CCC/City

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-6E

Potential Jurisdictional Waters of the U.S. and State

Mission Bay Park Improvements Program EIR

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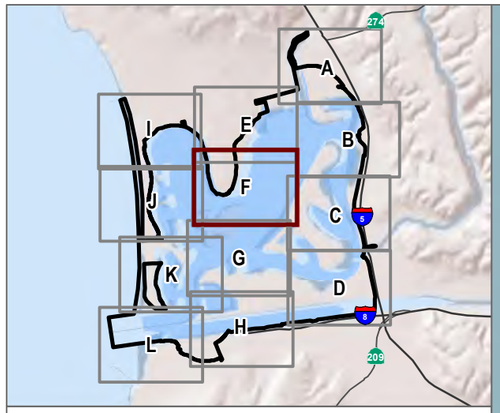

- Mission Bay Park Improvement Zone/Biological Study Area (BSA)
- Wetland and Water Quality Improvements
- Upland Habitat and Preserve Expansion
- Restoration of Shoreline

Jurisdictional Delineation

- USACE/RWQCB/CCC/City

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-6F

Potential Jurisdictional Waters of the U.S. and State

Mission Bay Park Improvements Program EIR

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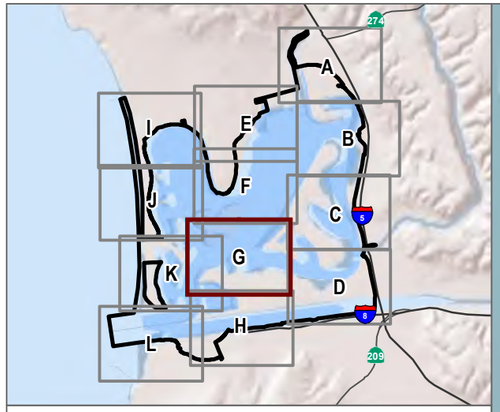

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Wetland and Water Quality Improvements

Restoration of Shoreline

Jurisdictional Delineation

USACE/RWQCB/CCC/City

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-6G

Potential Jurisdictional Waters of the U.S. and State

Mission Bay Park Improvements Program EIR

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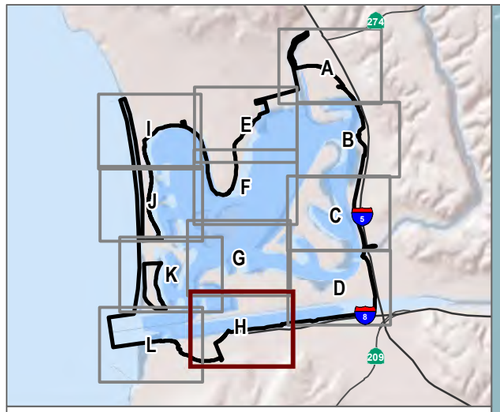

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Upland Habitat and Preserve Expansion

Bicycle and Pedestrian Improvements

Jurisdictional Delineation

USACE/RWQCB/CDFW/CCC/City

USACE/RWQCB/CCC/City

CDFW/CCC/City

SeaWorld Drive/San Diego River Site No. 5a - Cloverleaf Area

San Diego River

Ocean Beach Bike Path

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-6H

Potential Jurisdictional Waters of the U.S. and State

Mission Bay Park Improvements Program EIR

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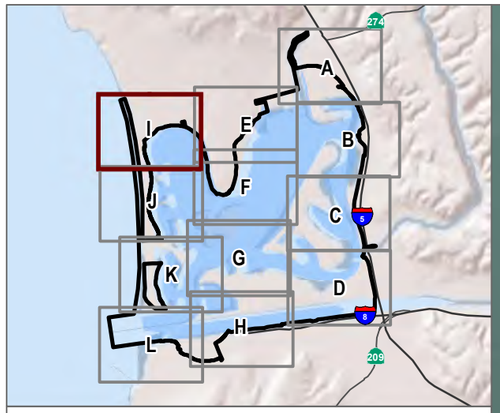

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Restoration of the Seawall Bulkhead

Restoration of Shoreline

Jurisdictional Delineation

USACE/RWQCB/CCC/City

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-6I

Potential Jurisdictional Waters of the U.S. and State

Mission Bay Park Improvements Program EIR

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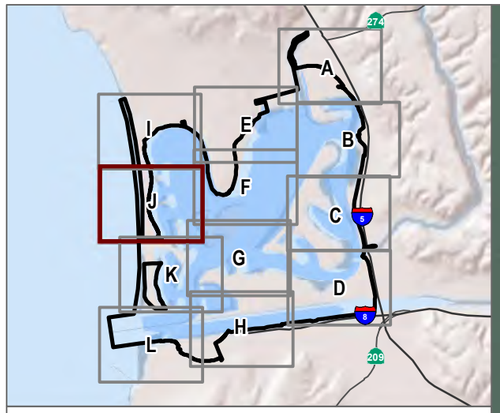

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Restoration of the Seawall Bulkhead

Restoration of Shoreline

Jurisdictional Delineation

USACE/RWQCB/CCC/City

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-6J

Potential Jurisdictional Waters of the U.S. and State

Mission Bay Park Improvements Program EIR

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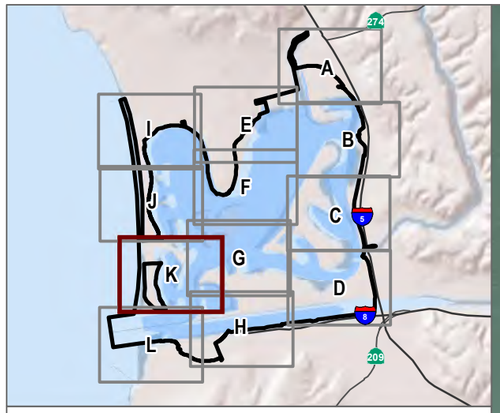

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Restoration of the Seawall Bulkhead

Restoration of Shoreline

Jurisdictional Delineation

USACE/RWQCB/CCC/City

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-6K

Potential Jurisdictional Waters of the U.S. and State

Mission Bay Park Improvements Program EIR

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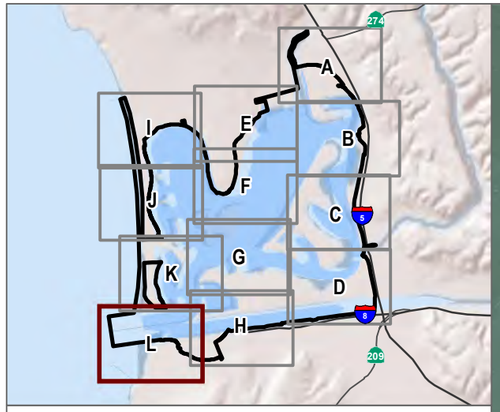

Mission Bay Park Improvement Zone/Biological Study Area (BSA)

Bicycle and Pedestrian Improvements

Jurisdictional Delineation

USACE/RWQCB/CCC/City

SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 250 500 Feet

FIGURE 4.2-6L

Potential Jurisdictional Waters of the U.S. and State

Mission Bay Park Improvements Program EIR

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4.3 ENERGY

This section describes the existing energy conditions of the Program site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Mission Bay Park Improvements Program (Program), if applicable.

The following discussion is based on the information from the Air Quality Technical Report prepared by Dudek and included as Appendix L of this Environmental Impact Report.

4.3.1 EXISTING CONDITIONS

Project Location

The Program location consists of the Mission Bay Park Improvement Zone (Improvement Zone), as defined in City Charter Section 55.2. Regionally, the Improvement Zone is located in the westernmost portion of central City of San Diego. The Program is located at the coastline in the City of San Diego bounded by the communities of Pacific Beach to the north, Ocean Beach to the south, Mission Beach to the west, and Interstate (I) 5 to the east. The Improvement Zone encompasses the 4,235-acre Mission Bay Park, along with additional areas in all directions. Within the Improvement Zone are various identified sites for known discrete projects (or "elements") within the Program to be analyzed under this Environmental Impact Report.

Electricity

According to the U.S. Energy Information Administration, California used approximately 239,480 gigawatt hours of electricity in 2023 (EIA 2025a). Electricity usage in California for different land uses varies substantially by the types of uses in a building, type of construction materials used in a building, and the efficiency of all electricity-consuming devices within a building. Due to the state's energy efficiency building standards and efficiency and conservation programs, California consumes more electricity than all other states except Texas, yet it uses less per capita than any other state but Hawaii (EIA 2025a).

San Diego Gas and Electric Company (SDG&E) provides electric services to 3.6 million customers through 1.4 million electric meters located in a 4,100-square-mile service area that includes San Diego County (County) and southern Orange County (SDG&E 2025).

According to the 2023 SDG&E Power Content Label, eligible renewable energy accounts for 41.4% of SDG&E's overall energy resources, with biomass and biowaste at 0.7%, eligible hydroelectric at 0.1%, solar at 22.6%, and wind at 18.0% (SDG&E 2024). Large hydroelectric accounts for 0.2% and natural

gas accounts for 58.4% of SDG&E's energy resources. Within the County, annual electricity use in 2022 was approximately 20,243 gigawatt hours per year (CEC 2025a).

Natural Gas

According to the Energy Information Administration, California used approximately 2,087,461 million cubic feet of natural gas in 2023 (EIA 2025b). The majority of California's natural gas customers are residential and small commercial customers (core customers). These customers account for approximately 35% of the natural gas delivered by California utilities (CPUC 2025). Large consumers, such as electric generators and industrial customers (noncore customers), account for approximately 65% of the natural gas delivered by California utilities (CPUC 2025).

SDG&E provides the county with natural gas service. SDG&E distributes energy services to 3.7 million people through 905,000 natural gas meters in San Diego and southern Orange counties. Within the county, annual natural gas use was approximately 522 million therms in 2022 (CEC 2025b).

Petroleum

According to the Energy Information Administration, California used approximately 648 million barrels of petroleum in 2023, with the majority (555 million barrels) used for the transportation sector (EIA 2025c). There are 42 U.S. gallons in a barrel, so this equates to a total daily use of approximately 15 million barrels of petroleum among all sectors and 13 million gallons for the transportation sector. Petroleum usage in the state includes petroleum products such as motor gasoline, distillate fuel, liquefied petroleum gases, and jet fuel. At the federal and state levels, various policies, rules, and regulations have been enacted to improve vehicle fuel efficiency, promote the development and use of alternative fuels, reduce transportation-source air pollutants and greenhouse gas (GHG) emissions, and reduce vehicle miles traveled. Section 4.3.2 discusses in more detail both federal and state regulations that would help increase fuel efficiency of motor vehicles and reduce GHG emissions. Market forces have driven the price of petroleum products steadily upward over time, and technological advances have made use of other energy resources or alternative transportation modes increasingly feasible.

4.3.2 RELEVANT PLANS, POLICIES, AND ORDINANCES

Federal

Energy Independence and Security Act of 2007

On December 19, 2007, the Energy Independence and Security Act of 2007 (EISA) was signed into law. In addition to setting increased Corporate Average Fuel Economy standards for motor vehicles, this

federal legislation requires ever-increasing levels of renewable fuels (the Renewable Fuel Standard [RFS]) to replace petroleum (EPA 2024a). The U.S. Environmental Protection Agency is responsible for developing and implementing regulations to ensure that transportation fuel sold in the United States contains a minimum volume of renewable fuel.

The RFS program was created under the Energy Policy Act of 2005 and established the first renewable fuel volume mandate in the United States. As required under the act, the original RFS program (RFS1) required 7.5 billion gallons of renewable fuel to be blended into gasoline by 2012. Under the EISA, the RFS program was expanded in several keyways that lay the foundation for achieving significant reductions in GHG emissions from the use of renewable fuels, reducing imported petroleum, and encouraging the development and expansion of the renewable fuels sector in the United States. The updated program (RFS2) includes the following:

- EISA expanded the RFS program to include diesel, in addition to gasoline.
- EISA increased the volume of renewable fuel required to be blended into transportation fuel from 9 billion gallons in 2008 to 36 billion gallons by 2022.
- EISA established new categories of renewable fuel and set separate volume requirements for each one.
- EISA required the U.S. Environmental Protection Agency to apply lifecycle GHG performance threshold standards to ensure that each category of renewable fuel emits fewer GHGs than the petroleum fuel it replaces.

Additional provisions of the EISA address energy savings in government and public institutions, research for alternative energy, additional research in carbon capture, international energy programs, and the creation of green (environmentally beneficial) jobs.

Local

SDG&E Individual Integrated Resource Plan

SDG&E's Conforming Portfolio identifies a need for approximately 700 gigawatt hours of incremental renewable power in addition to the assumed increases in energy efficiency and behind-the-meter solar, to meet the 2030 planning target (approximately 4% of the total energy in the portfolio) (SDG&E 2020). SDG&E's Conforming Portfolio demonstrates that the utility has reduced its GHG emissions in the early years of the planning period, reflecting its current position in relation to its Renewable Portfolio Standard (RPS) targets—in 2018, approximately 45% of its energy mix came from delivering renewable resources (compared to an RPS requirement of 29%), it has aggressively adopted energy storage, and does not utilize coal resources. SDG&E is fully compliant with RPS and long-term contracting requirements. SDG&E continues its efforts to meet resource-specific renewable

procurement mandates, as required, but does not expect to procure additional resources for RPS compliance purposes until after 2030. SDG&E is forecasted to reach 49% renewable energy in 2021, 98% of which would be from long-term contracts (SDG&E 2020).

San Diego Association of Governments

Regional Transportation/Sustainable Communities Strategy

The passage of SB 375 requires Metropolitan Planning Organizations to prepare a Sustainable Communities Strategy in their Regional Transportation Plan. SANDAG serves as the Metropolitan Planning Organization for the San Diego region and is responsible for developing and adopting a Sustainable Communities Strategy that integrates transportation, land use, and housing to meet GHG reduction targets set by the California Air Resources Board. The most recent, San Diego Forward: The 2021 Regional Plan, was adopted in 2021 and provides guidance on meeting or exceed GHG targets through implementation of five key transportation strategies. Through these strategies, the 2021 Regional Plan is projected to reduce per capita GHG emissions from cars and light-duty trucks to 20% below 2005 levels by 2035, exceeding the region's state-mandated target of 19% (SANDAG 2021a).

City of San Diego

General Plan

The following policies contained in the Conservation Element of the City's General Plan (City of San Diego 2024b) are applicable to the Program's energy use (refer to Section 5.1, Land Use, for a consistency analysis related to goals and policies applicable to the Program):

CE-A.5: Employ sustainable or "green" building techniques for the construction and operation of buildings.

Climate Action Plan

The City adopted a Climate Action Plan (CAP) in 2015 and updated it in 2022. The 2022 CAP establishes a communitywide goal of net zero GHG emissions by 2035, committing the City to an accelerated trajectory for GHG reductions. The CAP outlines strategies and measures to reduce the City's contribution to GHG emissions and align with statewide emission targets (i.e., those outlined for 2030 in SB 32). The CAP includes six strategies to facilitate GHG emission reduction from activities within the city. The measures addressed GHG emissions from the built environment, energy use, and transportation, among others (City of San Diego 2022b). The CAP identified the following six strategies to achieve the goals and targets set forth below:

- Decarbonization of the Built Environment
- Access to Clean and Renewable Energy

- Mobility and Land Use
- Circular Economy and Clean Communities
- Resilient Infrastructure and Health Ecosystems
- Emerging Climate Actions

Zero Emissions Municipal Buildings & Operations Policy

In December 2024, the San Diego City Council adopted an update to Council Policy No. 900-03, the Zero Emissions Municipal Buildings & Operations Policy, which establishes an implementing framework to ensure the City leads by example in decarbonizing the municipal building sector and transitioning to a zero-emissions fleet by 2035. The Zero Emissions Municipal Buildings & Operations Policy applies to all municipal facilities and parking lots and is included in all new leases of City-owned property.

With the adoption of the Zero Emissions Municipal Buildings & Operations Policy, new construction projects will be required to be all-electric, 10% more efficient than the state code, and designed to include a solar or other renewable energy system plus a battery energy storage system large enough to cover the facility's electricity load. All new construction projects shall be designed and operated with exclusively electric systems or appliances for space conditioning, water heating, cooking, and lighting, and without using any fossil fuel energy source for non-emergency electricity generation or any other non-emergency functions. All fleet parking spaces in associated parking lots must be EV Ready (i.e. wiring to the spaces), and staff and public spaces must meet CALGreen Tier 1 requirements for EV charging infrastructure.

4.3.3 SIGNIFICANCE DETERMINATION THRESHOLDS

Thresholds used to evaluate potential impacts related to energy are based on the California Environmental Quality Act (CEQA) Guidelines Appendix G and the City's CEQA Significance Determination Thresholds (2022a). The following issue questions are addressed in this section:

1. Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation.
2. Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

4.3.4 IMPACTS ANALYSIS

Issue 1: Would the project result in potentially significant environmental impact due to wasteful, inefficient, or unnecessary consumption of energy resources, during project construction or operation?

Construction Use

Electricity

Electricity is not expected to be consumed in large quantity during Program construction, as construction equipment and vehicles are typically not electric, but rather diesel- or gas-powered. Temporary electric power for as-necessary lighting and electronic equipment, such as computers inside temporary construction trailers, would be provided by SDG&E. The electricity used for such activities would be temporary and would have a negligible contribution to the Program's overall energy consumption.

Natural Gas

Natural gas is not anticipated to be required during Program construction. Fuels used for construction would primarily consist of diesel and gasoline, which are discussed below under the "petroleum" subsection. Any minor amounts of natural gas that may be consumed as a result of Program construction would have a negligible contribution to the proposed Program's overall energy consumption.

Petroleum

Petroleum would be consumed throughout construction of the Program. Fuel consumed by construction equipment would be the primary energy resource expended over the course of construction, and vehicle miles traveled associated with the transportation of construction materials and construction worker commutes would also result in petroleum consumption. Heavy-duty construction equipment associated with construction activities and on-road trucks are assumed to use diesel fuel. In addition, tugboats and support vessels associated with construction activities would consume diesel fuel. It is assumed that construction workers would travel to and from the Program site in gasoline-powered vehicles.

Fuel consumption from construction (off-road equipment, haul trucks, vendor trucks, worker vehicles) was estimated by converting the total emissions from each construction phase to gallons using conversion factors for carbon dioxide (CO_2) to gallons of gasoline or diesel. The conversion factor for gasoline is 8.78 kilograms per metric ton of CO_2 per gallon, and the conversion factor for diesel is

10.21 kilograms per metric ton of CO_2 per gallon (The Climate Registry 2025). Fuel consumption for marine vessels (i.e., tugboats, auxiliary generators, and support vessels) was calculated using the applicable higher heating value (137,000 British thermal units per gallon) and brake-specific fuel consumption value (7,420 British thermal units per brake horsepower-hour) for the diesel engines (SBCAPCD 2002). The estimated diesel fuel usage from construction equipment, haul trucks, vendor trucks, and marine vessels as well as estimated gasoline fuel usage from worker vehicles, is shown in Table 4.3-1.

Table 4.3-1.
Construction Petroleum Demand Summary

Off-Road Equipment (Diesel)	Haul Trucks (Diesel)	Vendor Trucks (Diesel)	Marine Vessels (Diesel)	Worker Vehicles (Gasoline)
Gallons				
455,894	292,280	22,629	67,932	20,970

Source: Appendix L.

In summary, construction of all Program elements is anticipated to consume approximately 859,705 gallons of petroleum in total. Notably, the Program would be subject to the California Air Resources Board's In-Use Off-Road Diesel Vehicle Regulation that applies to certain off-road diesel engines, vehicles, or equipment greater than 25 horsepower. The regulation (1) imposes limits on idling, requires a written idling policy, and requires a disclosure when selling vehicles; (2) requires all vehicles to be reported to the California Air Resources Board (using the Diesel Off-Road Online Reporting System) and labeled; (3) restricts the adding of older vehicles into fleets starting on January 1, 2014; and (4) requires fleets to reduce their emissions by retiring, replacing, or repowering older engines or installing Verified Diesel Emission Control Strategies (i.e., exhaust retrofits). The fleet must either show that its fleet average index was less than or equal to the calculated fleet average target rate, or that the fleet has met the Best Achievable Control Technology requirements. Program construction would represent a "single-event" petroleum demand and would not require on-going or permanent commitment of petroleum resources for this purpose. Overall, Program construction would not involve activities or uses that require equipment that would be less energy-efficient than at comparable construction sites in the region or state.

Operation

Maintenance activities for the Program would be minimal and would be similar to those that occur under existing conditions. Because the Program would not result in any new long-term operational activities, there would be no increase in electricity, natural gas, or petroleum consumption during operations and maintenance compared to existing conditions.

Renewable Energy Potential

Given the location of the Improvement Zone and the nature of the Program, there are anticipated considerable site constraints at a parcel level including potential limited land availability, protected habitats and preserves, incompatibility with on-site and surrounding land uses for large scale power generation facilities, and no known water or geothermal resources to harness, that would eliminate the potential for biomass, geothermal, solar, wind, and hydroelectric renewable energy to be installed within the Improvement Zone. Furthermore, the objectives of the Program include wetland expansion, water quality improvements, restoration of shoreline, the expansion of threatened species preserves, and the Program would not construct any buildings or increase operational energy needs. Therefore, the Improvement Zone would not be suitable for renewable energy production. Impacts due to wasteful, inefficient, or unnecessary consumption of energy resources during construction would be **less than significant**.

Issue 2: Would the project conflict with or obstruct a state or local plan for renewable energy or energy efficiency?

The Program proposes park improvements and does not involve the construction of a building. Therefore, the Program would not be subject to the California Building Energy Efficiency Standards (24 CCR, Part 6) or California Green Building Standards (CALGreen; 24 CCR, Part 11). On this basis, the Program would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency.

Various existing local plans would reduce energy use in the region, including the Program, such as the City of San Diego CAP, the City of San Diego Zero Emissions Municipal Buildings & Operations Policy, SANDAG'S Regional Transportation Plan/Sustainable Communities Strategy, and the California Air Resources Board Scoping Plan. The goals related to renewable energy or energy efficiency in these plans are focused on operation rather than temporary construction. Because the Program proposes park improvements that would not increase energy consumption during operation, the Program would not conflict with or impede the goals of these plans. Furthermore, approval of the Program itself would not change these regulations and would not provide any goals, policies, or programs that would conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Impacts would be **less than significant**.

4.3.5 MITIGATION FRAMEWORK

No mitigation would be required.

4.3.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Issue 1: Consumption of Energy Resources

The Program would have a **less-than-significant** impact.

Issue 2: Renewable Energy and Energy Efficiency Plan

The Program would have a **less-than-significant** impact.

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4.4 GEOLOGY AND SOILS

This section of the Environmental Impact Report (EIR) addresses potential impacts related to geology and soil conditions that could result from implementation of the proposed Mission Bay Park Improvements Program (Program). Information in this section is based in part, on the Desktop Geotechnical and Geologic Hazard Evaluation – Mission Bay Park Improvements Projects (Geotechnical Report), prepared by the Bodhi Group in June 2025, which is included as Appendix P of this EIR.

4.4.1 EXISTING CONDITIONS

Please also refer to Chapter 2, Environmental Setting, of this EIR for a discussion of existing general physical conditions.

4.4.1.1 Geologic Setting

San Diego is located within the western (coastal) portion of the Peninsular Ranges Geomorphic Province of California. The Peninsular Ranges encompass an area that roughly extends from the Transverse Ranges and the Los Angeles Basin, south to the Mexican border, and beyond another approximately 800 miles to the tip of Baja California. The geomorphic province varies in width from approximately 30 to 100 miles, most of which is characterized by northwest-trending mountain ranges separated by subparallel fault zones. In general, the Peninsular Ranges are underlain by Jurassic-age metavolcanic and metasedimentary rocks and by Cretaceous-age igneous rocks of the southern California batholith. Geologic cover over the basement rocks in the westernmost portion of the province in San Diego County generally consists of Upper Cretaceous-, Tertiary-, and Quaternary-age sedimentary rocks (Appendix P).

4.4.1.2 Local Geology

The geologic units exposed in the Mission Bay Park Improvement Zone (Improvement Zone) consist of artificial fill (dredged hydraulic fill), young beach deposits, and Old paralic deposits. Although not exposed in the Improvement Zone, it is believed that the artificial fill is underlain locally by young alluvium, and young estuarine deposits. The young deposits are likely underlain by Old paralic deposits. Older Pliocene and Eocene sedimentary rocks unconformably underlie the Old paralic deposits. Artificial fill, beach deposits, and young alluvium/estuarine deposits may be subject to consolidation under additional fill or structural loads. Descriptions of the general characteristics of these units are described below and in Appendix P.

A. **Af—Artificial fill (late Holocene)**

The Improvement Zone is underlain by a variable thickness of artificial fill consisting of dredged, hydraulically place materials sourced from Mission Bay. Based on old topographic maps, the fill

likely ranges from 5-feet thick along the shore line to about 20-feet thick in the northern portions of the Improvement Zone. The fill likely consists of loose to medium dense sand. Portions of the fill may have been compacted during construction of existing streets and building pads, although there is no readily available documentation of compaction. The artificial fill may be subject to settlement under building or additional fill loads.

B. **Qya—Young alluvial deposits (Holocene and Late Pleistocene)**

Young alluvial and estuarine deposits (Holocene and late Pleistocene). The young alluvial and estuary (estuarine) deposits are not exposed at the ground surface in the Improvement Zone. Young alluvial and estuarine deposits likely underlie the artificial fill and are characterized as poorly consolidated, sand, silt and clay layers. The alluvium is loose to soft and saturated. The young alluvial and estuarine deposits are subject to settlement under building or additional fill loads and are liquefiable.

C. **Qmb—Young marine beach sediments (Holocene)**

The beach deposits are located west of the Oceanfront Walk seawall bulkhead and consist of unconsolidated, clean, fine to medium grained sand. The thickness of the sediments is dependent on seasonal variations in swell direction and intensity. Large storm surf has eroded the beach down to the underlying Old paralic deposits (Unit 6) and exposed the bulkhead foundations during El Niño episodes. Beach sediments are compressible and erodible.

D. **Qop6—Old paralic deposits, Unit 6 (middle to early Pleistocene)**

The Old paralic deposits are exposed in the Crown Point area and are believed to underlie the young alluvial, beach, and estuarine deposits. The Unit 6 deposits consist of poorly sorted, moderately permeable, well consolidated, reddish brown, interfingered strandline, beach, estuarine, and colluvial deposits composed of siltstone, sandstone, and conglomerate. These paralic deposits are well consolidated and might be sufficient to support deep foundations for light structural loads.

4.4.1.3 Geologic Hazards

A. **Geologic Hazard Categories**

The City of San Diego Seismic Safety Study (City of San Diego 2008) Geologic Hazards and Faults maps document the known and suspected geologic hazards and faults in the region. The maps show potential hazards and rates them by relative risk, on a scale from nominal to high. Figure 4.4-1, Summary of Geohazards, shows the location of hazards within the Improvement Zone as defined by the City maps. The Improvement Zone is designated Geologic Hazard Category 31; "high potential for liquefaction due to high groundwater…and hydraulic fills". As shown in

Figure 4.4-1, the northeastern most portion of the Improvement Zone is partially underlain by potentially active and active buried faults.[1]

B. **Regional Faults**

The San Diego region sits along the boundary between the North American and Pacific tectonic plates and experiences the effects of seismic activity occurring where the plates interact. The boundary is characterized by a wide zone of predominantly northwest-striking, right-slip faults that span the Imperial Valley and Peninsular Range to the offshore California Continental Borderland Province (from the California continental slope to the coast). Within the San Diego region, this zone extends from the San Clemente fault zone located approximately 60 miles west of San Diego to the San Andreas fault zone approximately 70 miles east of San Diego. The most prominent Holocene-active faults in the region, based on geodetic and seismic data, are the San Andreas, San Jacinto, and Imperial faults (Figure 4.4-2, Regional Faults). These faults take up most of the plate motion along the tectonic plate boundary. However, other regional Holocene-active faults are also capable of being the source of damaging earthquakes, and these include the Elsinore, Newport–Inglewood–Rose Canyon, and the offshore Coronado Banks; San Diego Trough; and San Clemente fault zones. The Improvement Zone is subject to potential ground shaking caused by activity along faults located near the Improvement Zone.

Table 4.4-1, Fault Characteristics for Holocene-Active Faults in the Region, summarizes the local and regional fault characteristics for the Holocene-active faults that could affect the Improvement Zone. Holocene-active faults are those faults which have shown evidence of displacement in the last 11,700 years. Pre-Holocene faults are those that have had displacement during Quaternary time, but Holocene activity is indeterminate. Pre-Holocene faults generally have a lower probability for future activity than Holocene-active faults.

Table 4.4-1
Fault Characteristics for Holocene-Active Faults in the Region

Fault Name	Approximate Distance to the Improvement Zone (miles)	Slip Rate (mm/yr)	Fault Length (miles)	Estimated Magnitude (maximum moment magnitude [Mw])
Newport–Inglewood–Rose Canyon Fault Zone	0.20	1.5	130	7.2
Coronado Bank Fault Zone (offshore)	14	3.0	115	7.6

[1] Potentially active faults refers to an older classification of faults that do not meet the definition of an "active fault" where an "active fault" is used to define a fault with indications of displacement that has occurred within the last 11,700 years (CGS 2018). These faults are also known as Holocene-active faults. Faults that have no evidence of movement within the last 11,700 years are known as Pre-Holocene faults.

Table 4.4-1
Fault Characteristics for Holocene-Active Faults in the Region

Fault Name	Approximate Distance to the Improvement Zone (miles)	Slip Rate (mm/yr)	Fault Length (miles)	Estimated Magnitude (maximum moment magnitude [Mw])
San Diego Trough Fault Zone (offshore)	20	1.5	106	7.5
San Miguel–Vallecitos Fault Zone (Northern Baja California)	30	0.2	100	6.9
Elsinore Fault Zone	41	5.0	190	7.0
San Clemente Fault Zone (offshore)	23	—	129	7.7
San Jacinto Fault Zone	63	4.0	152	6.8
Southern San Andreas Fault Zone	90	25	140	7.2

Source: Appendix P.

The nearest Holocene-active fault to the Improvement Zone is the Rose Canyon fault zone located approximately 1,000 feet east of the centroid of the Improvement Zone, but relatively close to the eastern boundary. A buried active trace of the fault zone has been mapped to underlie North Mission Bay Drive in the northeast corner of the Improvement Zone. The Rose Canyon fault zone is the southernmost portion of the Newport–Inglewood fault zone that extends from Long Beach to the north to the Descanso fault, offshore of Baja California. A magnitude 6.3 earthquake occurred on the Newport–Inglewood fault in 1933 and caused serious damage in the Los Angeles area. Fault trenching on the Rose Canyon fault has shown that the fault has ruptured the ground surface several times in the last 10,000 years (Appendix P).

C. Landslides

Landslides, slope failures, and mudflows of earth materials generally occur where slopes are steep and/or the earth materials are weak. Earthquake-induced landslides may also occur due to seismic ground shaking. The topography of the Improvement Zone is generally relatively flat and not likely to be susceptible to landslides or slope instability unless new slopes are created during development.

D. Ground Failure/Shaking

Ground failure or surface fault rupture is the displacement of ground surface that occurs along a fault line during an earthquake event. Based on criteria established by the California Geological

Survey, faults are classified as either Holocene-active, pre-Holocene, or age-undetermined. Faults are considered active when they have shown evidence of movement within the past 11,700 years (i.e., Holocene epoch). Pre-Holocene faults are those that have shown evidence of movement more than 11,700 years ago and generally before 1.6 million years (Quaternary age). Faults whose age of most recent movement is not known or is unconstrained by dating methods or by limitations in stratigraphic resolution are considered age-undetermined and inactive (CGS 2018).

The Alquist-Priolo Earthquake Fault Zoning Act (formerly known as the Alquist-Priolo Special Studies Zones Act) established state policy to identify Holocene-active faults and determine a boundary zone on either side of a known fault trace, called the Alquist-Priolo Earthquake Fault Zone. The delineated width of an Alquist-Priolo Earthquake Fault is based on the location, precision, complexity, or regional significance of the fault and can be between 200 and 500 feet in width on either side of the fault trace. If a site lies within a designated Alquist-Priolo Earthquake Fault Zone, a geologic fault rupture investigation must be performed to demonstrate that a proposed building site is not threatened by surface displacement from the fault, before development permits may be issued (CGS 2018).

No Alquist-Priolo Earthquake Fault Zones traverse the Improvement Zone (CGS 2025). However, the Rose Canyon fault zone is located just east of the Improvement Zone's eastern boundary. As shown in Figure 4.4-1, Summary of Geohazards, the associated Alquist-Priolo Earthquake Fault Zone is located east of North Mission Bay Drive. While fault rupture is not necessarily limited to the confines of a mapped Alquist-Priolo Earthquake Fault Zone, it is considered unlikely to occur outside of these mapped areas.

Nonetheless, the Improvement Zone is located in a seismically active region of Southern California where there are numerous Holocene-active faults that are capable of producing substantive seismic events (i.e., earthquakes). The level of ground shaking at a given location depends on many factors, including the size and type of earthquake, distance from the earthquake, and subsurface geologic conditions. The type of construction also affects how particular structures and improvements perform during ground shaking. A common measure of ground motion is the peak ground acceleration (PGA). It is not a measure of total energy of an earthquake, such as the Richter and moment magnitude scales, but rather of how hard the ground shakes in a given geographic area (CGS 2002). PGA is expressed as the percentage of the acceleration due to gravity, or ground motion (G), which is approximately 980 centimeters per second squared. The seismic parameters determined for the Improvement Zone resulted in an estimated PGA value of 0.570g which would have a 10% probability of exceedance in 50 years (Appendix P). For comparison purposes, the 1994 Northridge earthquake had recorded PGA values that exceeded 1.0g at several sites with the largest value of 1.8g and resulted in substantial damages and loss of life (USGS 2025). A PGA of 0.5 is relatively high and can result in damage to structures however buildings can

avoid substantive damage depending on the duration of shaking and building foundation characteristics (Appendix P).

E. Lateral Spreading

Lateral spreading occurs when conditions occur where liquefiable materials can move as a block towards an exposed slope or near a free-face and there is a sufficiently continuous liquefiable layer on which the overlying soils can move laterally. While slopes in the Improvement Zone are very gentle, there is sufficient gradient along the shoreline to create conditions for lateral spreading where during liquefaction, the ground surfaces moves laterally (Appendix P). The potential for lateral spreading can also increase in areas where fills placed for improvement create an artificial gradient. Ground settlement or seismically induced settlement, the lowering of the ground surface, may also occur during seismic shaking of an area where liquefaction of loose granular soils results in a rearrangement or compaction of those loose soils.

F. Subsidence

Subsidence is the permanent collapse of the pore space within a soil or rock and downward settling of the earth's surface relative to its surrounding area. Subsidence can result from hydrocompaction or peat loss. Hydrocompaction is a condition resulting from the extraction of water, oil, or geothermal resources, and the addition of water to the land surface, and peat loss is the degradation, erosion, or removal of peat soils, which are formed from partially decomposed organic matter in waterlogged conditions. The compaction of subsurface sediment caused by the withdrawal or addition of fluids can cause subsidence. Land subsidence can disrupt surface drainage; reduce aquifer storage; cause earth fissures; damage buildings and structures; and damage wells, roads, and utility infrastructure.

Groundwater extraction is minimal in the Improvement Zone and the geologic materials area are generally relatively well consolidated such that subsidence is not considered a hazard in the Improvement Zone. However, settlement of unconsolidated soil (fill or alluvial/estuarine sediments) may occur locally where new loads (e.g., new structures or additional placement of fill materials) are imposed on previously uncompacted fill or unconsolidated alluvium (Appendix P).

G. Liquefaction

Ground displacement including liquefaction are among some of the seismic hazards that can be present in seismically active areas. Liquefaction involves a sudden loss in strength of saturated, cohesionless soils that are subject to ground shaking during an earthquake and results in temporary transformation of the soil to behave more like a fluid mass. The densification results in increased pore water pressures if the soils are not sufficiently permeable to dissipate these pressures during, and immediately following, an earthquake. When the pore water pressure is equal to or exceeds the overburden pressure, liquefaction of the affected soil layer occurs. For liquefaction to occur, three conditions are required: (1) ground shaking of sufficient magnitude

and duration; (2) a groundwater level at or above the level of susceptible soils during the ground shaking; and (3) soils that are susceptible to liquefaction. According to the Geotechnical Report, the entire Improvement Zone is underlain by materials that are potentially susceptible to liquefaction (Appendix P).

H. **Expansive or Corrosive Soils**

Expansive soils are soils that experience volumetric changes (i.e., expanding and shrinking) during cyclic changes in wetting and drying periods. Over time, this continuous change in soil volume can cause foundations to move unevenly and crack. According to the Geotechnical Report, the soils in the Improvement Zone are generally relatively granular and not expected to exhibit expansive properties. However, due to the shallow and brackish groundwater conditions, corrosion of below ground surface improvements, especially metal, would likely be susceptible to this hazard (Appendix P).

4.4.1.4 Groundwater, Drainage and Flooding

Groundwater conditions in the Improvement Zone are dominated by the adjacency to Mission Bay. The groundwater in this area is saline to brackish and generally encountered at sea level. The Geotechnical Report notes that groundwater depths within the Improvement Zone will vary with the tides. The Improvement Zone is situated on a mixed recreation and residential land use area. Current drainage is into streets, storm drains, and gutters that flow into Mission Bay. Additionally, grassy park land sheet flows into the Bay. Rose Creek flows in a rip-rap lined dredged channel into the Bay. The Improvement Zone is within Zone-X of the San Diego County Flood Insurance Rate Map and has a 1% chance of flood with average depths of less than 1 foot (Appendix P).

4.4.2 REGULATORY SETTING

Federal

There are no relevant Federal plans, policies, or ordinances that apply to the Program.

State

Earthquake Fault Zoning Act (Alquist-Priolo Act)

The State of California Alquist-Priolo Earthquake Fault Zoning Act (1972) was established to mitigate the hazard of surface faulting to structures for human occupancy. Pursuant to the Act, the State Geologist has established regulatory zones (known as Earthquake Fault Zones) around surface traces of active faults. These have been mapped for affected cities, including San Diego. Application for a development permit for any project within a delineated earthquake fault zone shall be accompanied

by a geologic report, prepared by a geologist registered in the State of California, that is directed to the problem of potential surface fault displacement through a project site.

California Seismic Hazards Mapping Act

The California Seismic Hazards Mapping Act (Public Resources Code [PRC]; Division 2, Chapter 7.8, Section 2690 et seq.) provides a statewide seismic hazard mapping and technical advisory program to assist local governments in protecting public health and safety relative to seismic hazards. The Act provides direction and funding for the State Geologist to compile seismic hazard maps and to make those maps available to local governments. The Act, along with related standards in the Seismic Hazards Mapping Regulations (14 CCR Division 2, Chapter 8, Article 10, Section 3270 et seq.), also directs local governments to require the completion and review of appropriate geotechnical studies prior to approving development projects. These requirements are implemented on a local level through means such as general plan directives and regulatory ordinances.

California Code of Regulations

The California Building Code (CCR Title 24, Part 2) encompasses a number of requirements related to geologic issues for construction of buildings, roads, and pathways, and also includes measures related to grading and earthwork activities. Specifically, these include general provisions (Chapter 1), structural design, including soil and seismic loading (Chapters 16/16A), structural tests and special inspections, including seismic resistance (Chapters 17/17A), soils and foundations (Chapters 18/18A), concrete (Chapters 19/19A), masonry (Chapters 21/21A), wood, including consideration of seismic design categories (Chapter 23), construction safeguards (Chapter 33), and grading, including excavation, fill, drainage, and erosion control criteria (Appendix P). The California Building Code encompasses standards from other applicable sources, including the International Building Code, and the American Society for Testing and Materials International, with appropriate amendments and modifications to reflect site-specific conditions and requirements in California. Program elements including bicycle and pedestrian pathways as well as the bulkhead improvements and any grading activities would be subject to applicable California Building Code requirements.

Local

City of San Diego Seismic Safety Study

The San Diego Seismic Safety Study includes geologic hazards and fault maps of the City. Areas of the City are identified by geologic hazard category, which reflects the geologic hazard type and related risks. These are generalized maps, and site-specific geologic/geotechnical investigations may be necessary for proposed development or construction. Land Development Code Section 145.1803 describes when a geotechnical investigation is required for building permits, and City of San Diego

Development Services Information Bulletin 515 describes the minimum submittal requirements for geotechnical and geological reports that may be required for development permits, subdivision approvals, or grading permits.

City of San Diego Land Development Code

The City's Land Development Code sets forth the regulations that apply to the development of land in the City, and comprises Chapters 11 through 15 of the San Diego Municipal Code (SDMC). The Land Development Code describes situations where grading permits are needed, which include the following;

- Grading within a 100-year floodplain or which changes the existing drainage pattern
- For grading, geotechnical investigations, well drilling, or agricultural activity on environmentally sensitive lands or on properties with historical resources
- For any activity that disturbs soil or vegetation in Environmentally Sensitive Lands
- If grading is being performed as a condition of a development permit or for restoring damage caused by illegal grading
- If the grading is within privately owned open space easements or City-owned open space
- For modification of slope on a canyon or excavation of a hillside
- For grading of any nonenvironmentally sensitive land of 1 acre or more
- For fill with more than 5% broken concrete, asphalt, masonry or construction debris, or with any single piece larger than 12 inches in any direction

City of San Diego Building Regulations

The City's Building Regulations (SDMC Chapter 14, Article 5) are intended to regulate the construction of applicable facilities and encompass (and formally adopt) associated elements of the California Building Code. Specifically, the City's Building Regulations include guidelines regulating the "construction, alteration, replacement, repair, maintenance, moving, removal, demolition, occupancy, and use of any privately owned building or structure or any appurtenances connected or attached to such buildings or structures within this jurisdiction, except work located primarily in a public way, public utility towers and poles, mechanical equipment not specifically regulated in the Building Code, and hydraulic flood control structures" (SDMC Section 145.0102[a]).

General Plan Public Facilities, Services, and Safety Element

The Public Facilities, Services, and Safety Element of the General Plan (City of San Diego 2024b) identifies a number of applicable policies related to seismic, geologic, and structural considerations. Specifically, Policies PF-Q.1 and PF-Q.2 include measures regarding conformance with State laws related to seismic and geologic hazards, conducting/reviewing geotechnical investigations, and maintaining structural integrity with respect to geologic hazards.

4.4.3 SIGNIFICANCE DETERMINATION

Thresholds used to evaluate potential impacts related to geology and soils are based on the California Environmental Quality Act (CEQA) Guidelines Appendix G and the City's CEQA Significance Determination Thresholds (2022a). The following issue questions are addressed in this section:

1. Would the project expose people or structures to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards;
2. Would the project result in a substantial increase in wind or water erosion of soils, either on or off the site; or
3. Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

4.4.4 IMPACTS ANALYSIS

Issue 1: Would the project expose people or structures to geologic hazards such as earthquakes, landslides, mudslides, ground failure, or similar hazards?

Fault Rupture and Seismic Ground Shaking

The proposed improvements consist of shoreline restoration, soil stabilization (i.e., erosion control features), habitat and wetland restoration and creation, restoration of the existing seawall, and improvement of bicycle and pedestrian facilities. These types of improvements, once constructed are generally immune to most geologic hazards because they are not sensitive to settlement or seismic hazards. The improvements that are sensitive to geologic hazards are those with hard elements (concrete, steel, pipelines) that might be damaged or fail due to settlement or seismic effects. The geologic hazards that may affect elements in the Improvement Zone include seismicity and ground motion; ground rupture; liquefaction; seismically induced settlement; and flooding due to long-term sea level rise and tsunamis and seiches.

The Improvement Zone is subject to potential ground shaking caused by activity along faults located nearby. Ground shaking during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and the type of geologic material underlying the area. The composition of underlying soils, even those relatively distant from faults, can intensify ground shaking. Areas that are underlain by bedrock tend to experience less ground shaking than those underlain by unconsolidated sediments such as artificial fill or unconsolidated alluvial fill (Appendix P).

As noted, the Improvement Zone is subject to ground shaking hazards caused by earthquakes on regional active faults. Based on a Probabilistic Seismic Hazards Ground Motion Interpolator provided by the California Department of Conservation, the Improvement Zone is located in a zone where the horizontal PGA having a 10% probability of exceedance in 50 years is 0.570g (where g represents the acceleration of gravity) (Appendix P).

The Improvement Zone could be subject to ground shaking in the event of an earthquake along any of the active faults in the region that are listed in Table 4.4-1 or other faults in the Southern California/Northern Baja California region. The nearest active fault capable of causing ground rupture and strong seismic shaking is the Rose Canyon fault zone located approximately 1,000 feet east of the centroid of the Improvement Zone (Appendix P).

Proposed elements including the construction of culverts, bridges, and bulkheads within the Improvement Zone would be required to conform to applicable regulations and industry and code standards related to geologic hazards and seismic resistant design, including pertinent elements of the Seismic Hazards Mapping Act, Alquist-Priolo Earthquake Fault Zoning Act, and related City standards. The proposed Program does not include structural elements that would be occupied. As such, compliance with existing regulations and standards would reduce impacts related to fault rupture and seismic ground shaking, and a **less-than-significant** impact would occur.

Wetland and Water Quality Improvements Element

As part of this element, components would include improvements to existing and new wetland habitat. Non-native uplands would be transformed into salt marsh, open channels, and transitional wetland. Site excavation would mainly occur above the mean tide level, but would not create or exacerbate geologic hazards such as fault rupture and seismic ground shaking, or similar hazards because all earthwork would be conducted in accordance with applicable regulations and under the oversight of a licensed geotechnical engineer. In addition, there would be no construction of any habitable structures in this element. Therefore, impacts related to fault rupture and seismic ground shaking would be **less than significant**.

Restoration of Shoreline Element

The components in this element include shoreline stabilization, habitat enhancement, and improvement of public access. As with above, all work would be done in accordance with building code requirements and oversight from a licensed geotechnical engineer. Impacts would related to fault rupture and seismic ground shaking be **less than significant**.

Upland Habitat and Preserve Expansion Element

Components in this element include revegetation of existing sand berms and modification of dune habitat to create continuous habitat. Habitat modifications would not include any habitable structures and with adherence to building code requirements and oversight by a licensed geotechnical engineer, impacts of this element to fault rupture and seismic ground shaking would be **less than significant.**

Bicycle and Pedestrian Improvements Element

Bicycle and pedestrian improvements would include improvements to pathways and construction of new pathways for additional connection of existing facilities. All improvements would be constructed consistent with building code requirements which would minimize any future damage from geologic hazards. Therefore, impacts from fault rupture and seismic ground shaking would be **less than significant.**

Restoration of Seawall Bulkhead Element

Restoration of the seawall bulkhead would include replacement in-kind of the existing seawall bulkhead and access improvements. All bulkhead and access improvements would be designed and constructed in accordance with building code requirements such that potential damage from geologic hazards would be minimized. Therefore, impacts related to fault rupture and seismic ground shaking would be **less than significant.**

Liquefaction and Seismically Induced Settlement

Liquefaction is a phenomenon whereby unconsolidated and/or near-saturated soils lose cohesion as a result of severe vibratory motion. The relatively rapid loss of soil shear strength during strong earthquake shaking results in temporary, fluidlike behavior of the soil. Soil liquefaction causes ground failure that can damage roads, pipelines, underground cables, and buildings with shallow foundations. Research and historical data indicate that loose granular soils and non-plastic silts that are saturated by a relatively shallow groundwater table are susceptible to liquefaction. The entirety of the Improvement Zone is underlain by liquefiable soil. As such, the Improvement Zone is defined as having a high potential for liquefaction.

Among the potential hazards related to liquefaction are seismically induced settlement and lateral spreads. Seismically induced settlement is caused by the reduction of shear strength due to loss of grain-to-grain contact during liquefaction and may result in dynamic settlement on the order of several inches to several feet. Other factors such as earthquake magnitude, distance from the earthquake epicenter, thickness of the liquefiable layers, and the fines content and particle sizes of the liquefiable layers will also affect the amount of settlement. While slopes in the Improvement Zone are very gentle, there is sufficient gradient along the shoreline to create conditions for lateral spreading where during liquefaction, the ground surfaces moves laterally. The potential for lateral spreads can increase in areas where fills placed for improvement create an artificial gradient.

Proposed elements within the Improvement Zone may be subject to potentially significant impacts related to liquefaction and associated settlement. Elements would be required to conform to applicable regulations and industry and code standards related to liquefaction and associated hazards, including related City standards. Implementation of appropriate measures in conformance with applicable regulatory/industry standards would be mandated through required efforts including completion of appropriate component-specific geotechnical investigations required under related City standards and codes. Engineering design can be accomplished by ground improvement or foundation design. Implementation of appropriate measures would reduce potential impacts related to seismic liquefaction and associated settlement to an acceptable level of risk, and a **less-than-significant** impact would occur.

Wetland and Water Quality Improvements Element

As part of this element, components would include improvements to existing and new wetland habitat. Non-native uplands would be transformed into salt marsh, open channels, and transitional wetland. These improvements would not create or exacerbate liquefaction or seismically induced settlement hazards and there would be no construction of any habitable structures in this element. Therefore, impacts related to liquefaction or seismically induced settlement hazards would be **less than significant**.

Restoration of Shoreline Element

The components in this element include shoreline stabilization, habitat enhancement, and improvement of public access. As with above, all work would be done in accordance with building code requirements and oversight from a licensed geotechnical engineer that would include ensuring design elements consider and design for any potential liquefaction or seismically induced settlement. Therefore, impacts related to liquefaction or seismically induced settlement hazards would be **less than significant**.

Upland Habitat and Preserve Expansion Element

Components in this element include revegetation of existing sand berms and modification of dune habitat to create continuous habitat. Habitat modifications would not include any habitable structures and with adherence to building code requirements and oversight by a licensed geotechnical engineer, impacts of this element liquefaction or seismically induced settlement would be **less than significant.**

Bicycle and Pedestrian Improvements Element

Bicycle and pedestrian improvements would include improvements to pathways and construction of new pathways for additional connection of existing facilities. All improvements would be constructed consistent with building code requirements which would minimize any future damage from liquefaction or seismically induced settlement. Therefore, impacts from geologic hazards would be **less than significant.**

Restoration of Seawall Bulkhead Element

Restoration of the seawall bulkhead would include replacement in-kind of the existing seawall bulkhead and access improvements. All bulkhead and access improvements would be designed and constructed in accordance with building code requirements such that potential damage from liquefaction or seismically induced settlement would be minimized. Therefore, impacts related to liquefaction or seismically induced settlement would be **less than significant.**

Landslides and Slope Instability

In general, landslides and other slope failures may occur in hillside areas due to a number of factors, including seismic ground shaking or substantial rainfall. Structures, engineered slopes, roadways, utilities, and people located on or below unstable areas could be subject to severe damage or injury. Landslide, debris flows, and surficial material failures affect the area where the material originates, as well as downslope areas where the landslide debris accumulates.

The Improvement Zone is relatively flat. Landslide prone geologic formations and tall, steep slopes are not present within the Improvement Zone. The Program does not propose the creation of new, steep slopes that could introduce hazards related to landslides or slope instability. As such, impacts related to landslides and slope instability would be **less than significant**.

Wetland and Water Quality Improvements Element

As part of this element, components would include improvements to existing and new wetland habitat. Non-native uplands would be transformed into salt marsh, open channels, and transitional wetland. These improvements would include earthwork activities that alter at least temporarily site

topography but all earthwork would be done with the oversight of a licensed geotechnical engineer and there would be no construction of any habitable structures in this element. Therefore, impacts related to landslides and slope instability would be **less than significant**.

Restoration of Shoreline Element

The components in this element include shoreline stabilization, habitat enhancement, and improvement of public access. As with above, all work would be done in accordance with building code requirements and oversight from a licensed geotechnical engineer that would include ensuring design elements consider and design for any potential liquefaction or seismically induced settlement. Therefore, impacts related to landslides and slope instability would be **less than significant**.

Upland Habitat and Preserve Expansion Element

Components in this element include revegetation of existing sand berms and modification of dune habitat to create continuous habitat. Habitat modifications would not include any habitable structures and with adherence to building code requirements and oversight by a licensed geotechnical engineer, impacts of this element related to landslides and slope instability would be **less than significant.**

Bicycle and Pedestrian Improvements Element

Bicycle and pedestrian improvements would include improvements to pathways and construction of new pathways for additional connection of existing facilities. All improvements would be constructed consistent with building code requirements which would minimize any future damage landslides and slope instability. Therefore, impacts related to landslides and slope instability would be **less than significant.**

Restoration of Seawall Bulkhead Element

Restoration of the seawall bulkhead would include replacement in-kind of the existing seawall bulkhead and access improvements. All bulkhead and access improvements would be designed and constructed in accordance with building code requirements such that potential damage from liquefaction or seismically induced settlement would be minimized. Therefore, impacts related to landslides and slope instability would be **less than significant.**

Tsunamis, Seiches, and Dam Failures

A tsunami is a sea wave generated by a submarine earthquake, landslide, or volcanic action. Submarine earthquakes are common along the edge of the Pacific Ocean, thus exposing all Pacific coastal areas to the potential hazard of tsunamis. The State of California Tsunami Inundation Maps, La Jolla Quadrangle (CalEMA et al. 2009) shows the coastal portion of the Improvement Zone below

elevation 10 to be within the inundation zone. The 10-foot elevation does not consider sea level rise. Seiches are seismically induced waves within enclosed bodies of water such as Mission Bay. A seiche could be created by a large magnitude earthquake occurring on the Rose Canyon fault zone. However, the seiche inundation would likely be less than the inundation caused by a tsunami. Flooding of passive park, wetland and habitat improvements would not be considered significant as flooding events should not result in substantive damage or injury to proposed improvements or increase existing risk to the public. For other proposed improvements, sea level rise and tsunami inundation levels have been considered during the design process of the proposed Program components. The proposed bulkhead restoration along Oceanfront Walk would be designed to protect the walkway from future flooding or inundation events.

An earthquake-induced dam failure can result in a severe flood event. If catastrophic dam failure occurs, a large quantity of water is suddenly released with a great potential to cause human casualties, economic loss, lifeline disruption, and environmental damage. Based on review of the 2023 San Diego County Multi-Jurisdictional Hazard Mitigation Plan Dam Failure map, the Improvement Zone is outside dam inundation zones (County of San Diego 2023a). However, according to mapping compiled by the California Department of Water Resources, Mission Bay is shown as being included as part of the inundation area with failure of the Murray, No. 8-12 dam (DWR 2025a). Although, the upland areas of the Improvement Zone are not within the inundation area. In addition, with ongoing oversight and maintenance required by the California Division of Safety of Dams, the likelihood of catastrophic failure is relatively low and none of the proposed elements would increase the risk of inundation. Thus, impacts associated with inundation due to dam failures would be **less than significant**.

Wetland and Water Quality Improvements Element

As part of this element, components would include improvements to existing and new wetland habitat. Non-native uplands would be transformed into salt marsh, open channels, and transitional wetland. These improvements would not create or exacerbate inundation hazards related to tsunami, seiche, and dam inundation hazards and there would be no construction of any habitable structures in this element. Therefore, impacts related to tsunami, seiche, and dam inundation hazards would be **less than significant**.

Restoration of Shoreline Element

The components in this element include shoreline stabilization, habitat enhancement, and improvement of public access. As with above, all work would be done in accordance with building code requirements and oversight from a licensed geotechnical engineer that would include ensuring design elements consider and design for any tsunami, seiche, and dam inundation hazards.

Therefore, impacts related to tsunami, seiche, and dam inundation hazards would be **less than significant**.

Upland Habitat and Preserve Expansion Element

Components in this element include revegetation of existing sand berms and modification of dune habitat to create continuous habitat. Habitat modifications would not include any habitable structures and with adherence to building code requirements and oversight by a licensed geotechnical engineer, impacts of this element related to tsunami, seiche, and dam inundation hazards would be **less than significant.**

Bicycle and Pedestrian Improvements Element

Bicycle and pedestrian improvements would include improvements to pathways and construction of new pathways for additional connection of existing facilities. All improvements would be constructed consistent with building code requirements which would minimize any future damage tsunami, seiche, and dam inundation hazards. Therefore, impacts related to tsunami, seiche, and dam inundation hazards would be **less than significant.**

Restoration of Seawall Bulkhead Element

Restoration of the seawall bulkhead would include replacement in-kind of the existing seawall bulkhead and access improvements. All bulkhead and access improvements would be designed and constructed in accordance with building code requirements such that potential damage from tsunami, seiche, and dam inundation hazards would be minimized. Therefore, impacts would be **less than significant.**

Issue 2: Would the project result in a substantial increase in wind or water erosion of soils, either on or off the site?

Most of the Improvement Zone is located on manmade dredged fill where gradients are very low. As a result, the potential for erosion is very low. Nonetheless, elements within the Improvement Zone would involve grading activities that remove existing pavement and ground cover, thereby exposing soils to potential runoff and erosion during construction if protective measures are not taken. Compliance with City grading requirements would ensure that future construction operations would avoid significant soil erosion impacts. SDMC Section 142.0146 requires grading work to incorporate erosion and siltation control measures in accordance with Chapter 14, Article 2, Division 4 (Landscape Regulations) and the standards established in the Land Development Manual. The regulations prohibit sediment and pollutants from leaving the work site and require the implementation of erosion, sedimentation, and water pollution control measures. Controls shall include measures

outlined in Chapter 14, Article 2, Division 2 (Stormwater Runoff Control and Drainage Regulations) that address the development's potential erosion and sedimentation impacts.

Additionally, during construction activities, all elements that involve ground disturbances within the Improvement Zone would be subject to the requirements of the National Pollutant Discharge Elimination System Construction General Permit, or CGP (all projects with a collective land disturbance greater than 1 acre). The CGP requires the implementation of a Stormwater Pollution Prevention Program and associated best management practices, including appropriate measures to address erosion and sedimentation. An element component that results in new development or redevelopment that creates and/or replaces 5,000 square feet or more of impervious surfaces collectively over the site may be a "Priority Development Project" subject to additional requirements, including the preparation of a Stormwater Quality Management Plan (SWQMP).

Pursuant to the Implementation Framework, future components would be subject to EP WQ-1, which requires submittal of a DS-560 form to determine construction site and permanent BMP requirements. In addition, component design would be consistent with the latest editions of the City of San Diego Drainage Design Manual and Stormwater Standards Manual. Compliance with the National Pollutant Discharge Elimination System Construction General Permit and City of San Diego standards and code that stipulate protection against temporary and permanent erosion, the impact of erosion and loss of topsoil would be **less than significant**.

Once constructed, the proposed improvements would include impervious surfaces, landscaping and drainage control features that would protect soils and topsoil from the effects of wind and water erosion. As a result, during operation the potential for erosion and loss of topsoils would be **less than significant.**

Wetland and Water Quality Improvements Element

As part of this element, components would include improvements to existing and new wetland habitat. Non-native uplands would be transformed into salt marsh, open channels, and transitional wetland. These improvements would be designed and developed to minimize the effects of wind and water erosion. Therefore, impacts related to erosion and loss of topsoil would be **less than significant**.

Restoration of Shoreline Element

The components in this element include shoreline stabilization, habitat enhancement, and improvement of public access. As with above, all work would be done in accordance with building code requirements and oversight from a licensed geotechnical engineer that would include ensuring

design elements consider and design for stabilization of soils. Therefore, impacts related to erosion and loss of topsoil would be **less than significant**.

Upland Habitat and Preserve Expansion Element

Components in this element include revegetation of existing sand berms and modification of dune habitat to create continuous habitat. All Habitat and Preserve Expansion Element components would include appropriate vegetation and erosion control measures to ensure that impacts of this element would be **less than significant.**

Bicycle and Pedestrian Improvements Element

Bicycle and pedestrian improvements would include improvements to pathways and construction of new pathways for additional connection of existing facilities. All improvements would be constructed consistent with building code and drainage control requirements which would minimize any potential for erosion or loss of topsoil. Therefore, impacts would be **less than significant.**

Restoration of Seawall Bulkhead Element

Restoration of the seawall bulkhead would include replacement in-kind of the existing seawall bulkhead and access improvements. All bulkhead and access improvements would be designed and constructed in accordance with building code and drainage control requirements such that potential erosion and loss of topsoil would be minimized. Therefore, impacts would be **less than significant.**

Issue 3: Would the project be located on a geologic unit or soil that is unstable or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Landslides and Slope Instability

Landslides and potential slope instability are discussed under Issue 1, above. The Improvement Zone is relatively flat and the Program does not propose the creation of new steep slopes that could be unstable. As such, impacts related to landslides and slope instability would be **less than significant**.

Liquefaction and Lateral Spreading

Potential liquefaction impacts are discussed under Issue 1, above. Lateral spreading occurs on slopes in areas characterized by liquefaction-prone soil. Liquefiable soil occurs in the majority of the Improvement Zone. Development of the proposed elements would be required to conform to applicable regulations and industry and code standards related to liquefaction and associated

hazards, including preparation of a component-specific geotechnical investigation. Impacts would be **less than significant**.

Subsidence and Collapse

Subsidence typically occurs when extraction of fluids (water or oil) causes the rock to consolidate. Water extraction is minimal in the Improvement Zone and the geologic materials are well consolidated. For this reason, subsidence is not a hazard in the Improvement Zone (Appendix P). However, potential impacts related to settlement prone soils could occur when additions or new fills place new loads on settlement prone soil (fill or alluvial/estuarine sediments). Geotechnical investigations for the design of settlement-resistant structures associated with elements within the Improvement Zone would be conducted in accordance with City's Guidelines for Geotechnical Reports (City of San Diego 2018a). Typical remediation measures include ground improvements and/or foundation design. Potential impacts associated with subsidence and collapse would be reduced through implementation of measures included in site-specific geotechnical investigations associated with future development.

Expansive Soils

Expansion of the soil may result in unacceptable settlement or heave of structures or concrete slabs supported on grade. Changes in soil moisture content can result from precipitation, landscape irrigation, utility leakage, roof drainage, perched groundwater, drought, or other factors. Soils with a relatively high fines content (clays, predominantly) are generally considered expansive or potentially expansive. The soil in the Improvement Zone is granular and is not assumed to be expansive. Because the groundwater under the Improvement Zone is derived from Mission Bay, the soils would be salty or brackish (Appendix P). As such, impacts involving expansive soils would be **less than significant**.

Groundwater

Excavations within the Improvement Zone may encounter groundwater conditions that will be addressed during construction through the use of standard construction techniques (i.e., temporary shoring, casing, use of drilling muds for excavations and drains or waterproofing for below ground structures). The effects of potential construction to groundwater would be evaluated by geotechnical investigations in accordance with City of San Diego Guidelines for Geotechnical Reports on a site location-specific project-by-project basis (City of San Diego 2018a). Potential impacts associated with groundwater would be reduced through implementation of measures included in component-specific geotechnical investigations associated with elements under the proposed Program.

Wetland and Water Quality Improvements Element

As part of this element, components would include improvements to existing and new wetland habitat. Non-native uplands would be transformed into salt marsh, open channels, and transitional wetland. These improvements would not create or exacerbate unstable soil hazards and there would be no construction of any habitable structures in this element. Therefore, impacts related to unstable soils would be **less than significant**.

Restoration of Shoreline Element

The components in this element include shoreline stabilization, habitat enhancement, and improvement of public access. As with above, all work would be done in accordance with building code requirements and oversight from a licensed geotechnical engineer that would include ensuring design elements consider and design for any potential unstable soils. Therefore, impacts related to unstable soils would be **less than significant**.

Upland Habitat and Preserve Expansion Element

Components in this element include revegetation of existing sand berms and modification of dune habitat to create continuous habitat. Habitat modifications would not include any habitable structures and with adherence to building code requirements and oversight by a licensed geotechnical engineer, impacts of this element related to unstable soils would be **less than significant.**

Bicycle and Pedestrian Improvements Element

Bicycle and pedestrian improvements would include improvements to pathways and construction of new pathways for additional connection of existing facilities. All improvements would be constructed consistent with building code requirements which would minimize any potential for unstable soils to adversely affect improvements. Therefore, impacts would be **less than significant.**

Restoration of Seawall Bulkhead Element

Restoration of the seawall bulkhead would include replacement in-kind of the existing seawall bulkhead and access improvements. All bulkhead and access improvements would be designed and constructed in accordance with building code requirements such that potential damage unstable soils would be minimized. Therefore, impacts from geologic hazards would be **less than significant.**

4.4.5 MITIGATION MEASURES

Implementation of the proposed Program would result in **less-than-significant** impacts to geology and soils. No mitigation is required.

4.4.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Impacts to geology and soils would be **less than significant** and no mitigation is required.

SOURCE: SANGIS 2023; City of San Diego Seismic Safety Study, Geologic Hazards and Faults, Maps No. 20 and 25, 2008

DUDEK

0 900 1,800 Feet

FIGURE 4.4-1

Summary of Geohazards

Mission Bay Park Improvements Program EIR

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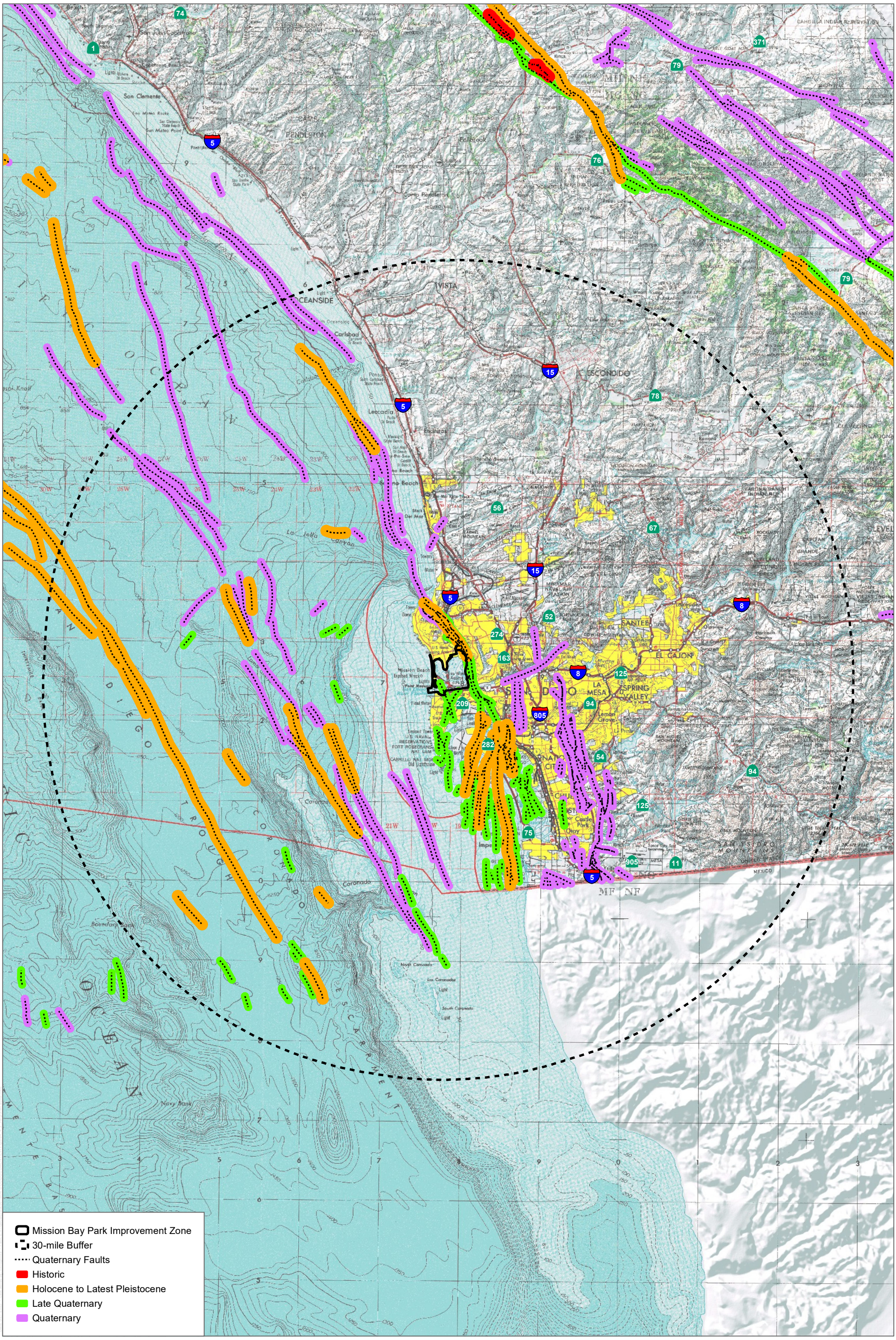

SOURCE: SANGIS 2023

DUDEK

FIGURE 4.4-2

Regional Faults

Mission Bay Park Improvements Program EIR

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4.5 GREENHOUSE GAS EMISSIONS

This section describes the existing greenhouse gas (GHG) emissions conditions of the Program site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the Mission Bay Park Improvements Program (Program), if applicable.

The following discussion is based on the Climate Action Plan (CAP) Memorandum prepared by Dudek and included in Appendix L to this Environmental Impact Report (EIR).

4.5.1 EXISTING CONDITIONS

Project Location

The Program location consists of the Mission Bay Park Improvement Zone (Improvement Zone), as defined in City of San Diego (City) Charter Section 55.2. Regionally, the Improvement Zone is located in the westernmost portion of central City of San Diego. The Program is located at the coastline in the City of San Diego bounded by the communities of Pacific Beach to the north, Ocean Beach to the south, Mission Beach to the west, and Interstate 5 to the east. The Improvement Zone encompasses the 4,235-acre Mission Bay Park, along with additional areas in all directions. Within the Improvement Zone are various identified sites for known discrete projects (or "elements") within the Program to be analyzed under this Environmental Impact Report.

Climate Change Overview

Climate change refers to any significant change in measures of climate, such as temperature, precipitation, or wind patterns, lasting for an extended period of time (decades or longer). The Earth's temperature depends on the balance between energy entering and leaving the planet's system. Many factors, both natural and human, can cause changes in Earth's energy balance, including variations in the Sun's energy reaching Earth, changes in the reflectivity of Earth's atmosphere and surface, and changes in the greenhouse effect, which affects the amount of heat retained by Earth's atmosphere (EPA 2024b).

The greenhouse effect is the trapping and build-up of heat in the atmosphere (troposphere) near the Earth's surface. The greenhouse effect traps heat in the troposphere through a threefold process: Short-wave radiation emitted by the Sun is absorbed by the Earth; the Earth emits a portion of this energy in the form of long-wave radiation; and GHGs in the upper atmosphere absorb this long-wave radiation and emit it into space and toward the Earth. The greenhouse effect is a natural process that contributes to regulating the Earth's temperature and creates a pleasant, livable environment on the Earth. Human activities that emit additional GHGs to the atmosphere increase the amount of infrared

radiation that gets absorbed before escaping into space, thus enhancing the greenhouse effect and causing the Earth's surface temperature to rise.

Greenhouse Gases

A GHG is any gas that absorbs infrared radiation in the atmosphere. GHGs include, but are not limited to, carbon dioxide (CO_2), methane, nitrous oxide, ozone, water vapor, black carbon, aerosols, hydrofluorocarbons, hydrochlorofluorocarbons, perfluorocarbons, and sulfur hexafluoride. Some GHGs, such as CO_2, methane, and nitrous oxide, occur naturally and are emitted to the atmosphere through natural processes and human activities. Of these gases, CO_2 and methane are emitted in the greatest quantities from human activities. Manufactured GHGs, which have a much greater heat-absorption potential than CO_2, include fluorinated gases (e.g., hydrofluorocarbons, hydrochlorofluorocarbons, perfluorocarbons, and sulfur hexafluoride), which are associated with certain industrial products and processes.

Global Warming Potential

Gases in the atmosphere can contribute to climate change both directly and indirectly. Direct effects occur when the gas itself absorbs radiation. Indirect radiative forcing occurs when chemical transformations of the substance produce other GHGs, when a gas influences the atmospheric lifetimes of other gases, and/or when a gas affects atmospheric processes that alter the radiative balance of the Earth (e.g., affect cloud formation or albedo[1]) (EPA 2024b). The Intergovernmental Panel on Climate Change developed the global warming potential (GWP) concept to compare the ability of each GHG to trap heat in the atmosphere relative to another gas. The GWP of a GHG is defined as the ratio of the time-integrated radiative forcing from the instantaneous release of 1 kilogram of a trace substance relative to that of 1 kilogram of a reference gas (IPCC 2014). The reference gas used is CO_2; therefore, GWP-weighted emissions are measured in metric tons CO_2 equivalent (MT CO_2e).

4.5.2 RELEVANT PLANS, POLICIES, AND ORDINANCES

Federal

Federal Vehicle Standards

In response to a Supreme Court ruling, the Bush administration issued Executive Order (EO) 13432 in 2007, directing the Environmental Protection Agency, Department of Transportation, and Department of Energy to reduce GHG emissions from vehicles by 2008. Subsequent regulations were established, including the National Highway Traffic Safety Administration's (NHTSA) 2009 rule for 2011 model year

[1] The fraction of light a surface reflects.

vehicles and joint Environmental Protection Agency-NHTSA rules for 2012-2016. In 2010, President Obama directed further standards, leading to stringent GHG and fuel economy standards for 2017-2025 model years. Additional standards for medium- and heavy-duty trucks were set in 2011. In 2022, NHTSA set new fuel economy standards for 2026, aiming for 49 miles per gallon by increasing efficiency annually.

State

State Climate Change Targets

The state has taken a number of actions to address climate change. These include EOs, legislation, and California Air Resources Board plans and requirements.

EO S-3-05. EO S-3-05 (June 2005) established the following statewide goals: GHG emissions should be reduced to 2000 levels by 2010, to 1990 levels by 2020, and to 80% below 1990 levels by 2050.

AB 32. In furtherance of the goals established in EO S-3-05, the legislature enacted AB 32 (Núñez and Pavley). AB 32 provided initial direction on creating a comprehensive multiyear program to limit California's GHG emissions to 1990 levels by 2020 and initiate the transformations required to achieve the state's long-range climate objectives.

SB 32. SB 32 and AB 197 (enacted in 2016) are companion bills that set a new statewide GHG reduction target, make changes to the California Air Resources Board's (CARB's) membership, increase legislative oversight of CARB's climate change-based activities, and expand dissemination of GHG and other air-quality-related emissions data to enhance transparency and accountability. More specifically, SB 32 codified the 2030 emissions reduction goal by requiring CARB to ensure that statewide GHG emissions are reduced to 40% below 1990 levels by 2030.

AB 1279. The legislature enacted AB 1279, the California Climate Crisis Act, in September 2022. The bill declares the policy of the state to achieve net zero GHG emissions as soon as possible, but no later than 2045, and achieve and maintain net negative GHG emissions thereafter. Additionally, the bill requires that by 2045, statewide anthropogenic GHG emissions be reduced to at least 85% below 1990 levels. Although AB 1279 establishes an overall policy to achieve net zero GHG emissions as soon as possible, but no later than 2045, recognizing the need to implement CO_2 removal and carbon capture, utilization, and storage technologies, the legislature established a specific target of 85% below 1990 levels by 2045 for anthropogenic GHG emissions. Therefore, the net zero target does not directly apply to development projects, but the 2045 target of 85% below 1990 levels represents the reductions required to contribute to accomplishing the state's overall net zero policy.

CARB's Climate Change Scoping Plan

One specific requirement of AB 32 was for CARB to prepare a scoping plan for achieving the maximum technologically feasible and cost-effective GHG emission reductions by 2020 (Health and Safety Code Section 38561[a]), and to update the plan at least once every 5 years. In 2008, CARB approved the first scoping plan. The Climate Change Scoping Plan: A Framework for Change (Scoping Plan) included a mix of recommended strategies to meet the 2020 statewide GHG emissions limit and initiate the transformations needed to achieve the state's long-range climate objectives (CARB 2008).

The Scoping Plan also identified local governments as essential partners in achieving California's goals to reduce GHG emissions. Specifically, the Scoping Plan encouraged local governments to adopt a reduction goal for municipal operations, and for community emissions to reduce GHGs by approximately 15% from then levels (2008) by 2020. Many local governments developed community-scale local GHG reduction plans based on this Scoping Plan recommendation.

In 2014, CARB approved the first update to the Scoping Plan. The First Update to the Climate Change Scoping Plan: Building on the Framework (First Update) defined the state's GHG emission reduction priorities for the next 5 years and laid the groundwork to start the transition to the post-2020 goals. The First Update concluded that California is on track to meet the 2020 target but recommended a 2030 mid-term GHG reduction target be established to ensure a continuum of action to reduce emissions. CARB recalculated the state's 1990 emissions level, using more recent GWPs identified by the Intergovernmental Panel on Climate Change, from 427 MMT CO_2e to 431 MMT CO_2e (CARB 2014).

In December 2017, CARB adopted California's 2017 Climate Change Scoping Plan (2017 Scoping Plan) for public review and comment (CARB 2017). The 2017 Scoping Plan builds on the successful framework established in the initial Scoping Plan and First Update while identifying new, technologically feasible and cost-effective strategies that will serve as the framework to achieve the 2030 GHG target as established by SB 32 and define the state's climate change priorities to 2030 and beyond.

CARB adopted the 2022 Scoping Plan Update in December 2022, which outlines the state's plan to reach carbon neutrality by 2045 or earlier, while also assessing the progress the state is making toward reducing GHG emissions by at least 40% below 1990 levels by 2030, as is required by SB 32 and laid out in the Second Update. The carbon neutrality goal requires CARB to expand proposed actions from only the reduction of anthropogenic sources of GHG emissions to also include those that capture and store carbon (e.g., through natural and working lands, or mechanical technologies). The carbon reduction programs build on and accelerate those currently in place, including moving to zero-emission transportation; phasing out use of fossil gas use for heating homes and buildings; reducing chemical and refrigerants with high GWP; providing communities with sustainable options for walking, biking, and public transit; displacement of fossil fuel fired electrical generation through use of renewable energy alternatives (e.g., solar arrays and wind turbines); and scaling up new options such as green hydrogen (CARB 2022).

The 2022 Scoping Plan also emphasizes that there is no realistic path to carbon neutrality without carbon removal and sequestration, and to achieve the state's carbon neutrality goal, carbon reduction programs must be supplemented by strategies to remove and sequester carbon.

State Vehicle Standards (Assembly Bill 1493 and Executive Order B-16-12)

AB 1493 (July 2002) was enacted in response to the transportation sector accounting for more than one-half of California's CO_2 emissions. AB 1493 required CARB to set GHG emission standards for passenger vehicles, light-duty trucks, and other vehicles determined by the state board to be vehicles that are primarily used for noncommercial personal transportation in the state. AB 1493 required that CARB set GHG emission standards for motor vehicles manufactured in 2009 and all subsequent model years. CARB adopted the standards in September 2004. EO B-16-12 (March 2012) required that state entities under the governor's direction and control support and facilitate the rapid commercialization of zero-emissions vehicles. It ordered CARB, CEC, the California Public Utilities Commission, and other relevant agencies to work with the Plug-In Electric Vehicle Collaborative and the California Fuel Cell Partnership to establish benchmarks to help achieve goals by 2015, 2020, and 2025. On a statewide basis, EO B-16-12 established a target reduction of GHG emissions from the transportation sector equaling 80% less than 1990 levels by 2050. This directive did not apply to vehicles that have special performance requirements necessary for the protection of the public safety and welfare.

Senate Bill 375

SB 375 (2008) addresses GHG emissions associated with the transportation sector through regional transportation and sustainability plans. SB 375 required CARB to adopt regional GHG reduction targets for the automobile and light-truck sector for 2020 and 2035. Regional metropolitan planning organization(s) were then responsible for preparing a sustainable communities strategy within their regional transportation plan. The goal of the sustainable communities strategy is to establish a forecasted development pattern for the region that, after considering transportation measures and policies, would achieve, if feasible, the GHG reduction targets.

Advanced Clean Trucks Regulation

The purpose of the Advanced Clean Trucks Regulation (June 2020) is to accelerate the market for zero-emissions vehicles in the medium- and heavy-duty truck sector and to reduce emissions NO_x, fine particulate matter, TACs, GHGs, and other criteria pollutants generated from on-road mobile sources (CARB 2025a). Requiring medium- and heavy-duty vehicles to transition to zero-emissions technology will reduce health risks to people living in and visiting California and is needed to help California meet established near- and long-term air quality and climate mitigation targets.

Senate Bill 97

SB 97 (Dutton) (August 2007) directed the Governor's Office of Planning and Research to develop guidelines under the California Environmental Quality Act (CEQA) for the mitigation of GHG emissions. In 2008, the Office of Planning and Research issued a technical advisory as interim guidance regarding the analysis of GHG emissions in CEQA documents. The advisory indicated that the lead agency should identify and estimate a project's GHG emissions, including those associated with vehicular traffic, energy consumption, water usage, and construction activities. The advisory further recommended that the lead agency determine significance of the impacts and impose all mitigation measures necessary to reduce GHG emissions to a level that is less than significant. The California Natural Resources Agency adopted the CEQA Guidelines amendments in December 2009, which became effective in March 2010.

Under the amended CEQA Guidelines, a lead agency has the discretion to determine whether to use a quantitative or qualitative analysis or apply performance standards to determine the significance of GHG emissions resulting from a particular project (14 CCR 15064.4[a]). The CEQA Guidelines require a lead agency to consider the extent to which a project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]). The CEQA Guidelines also allow a lead agency to consider feasible means of mitigating the significant effects of GHG emissions, including reductions in emissions through the implementation of project features or off-site measures. The adopted amendments do not establish a GHG emissions threshold, instead allowing a lead agency to develop, adopt, and apply its own thresholds of significance or those developed by other agencies or experts. California Natural Resources Agency also acknowledged that a lead agency may consider compliance with regulations or requirements implementing AB 32 in determining the significance of a project's GHG emissions (CNRA 2009).

With respect to GHG emissions, the CEQA Guidelines state in Section 15064.4(a) that lead agencies should "make a good faith effort, to the extent possible on scientific and factual data, to describe, calculate or estimate" GHG emissions. The CEQA Guidelines note that an agency may identify emissions by either selecting a "model or methodology" to quantify the emissions or by relying on "qualitative analysis or other performance-based standards" (14 CCR 15064.4[a]). Section 15064.4(b) states that the lead agency should consider the following when assessing the significance of impacts from GHG emissions on the environment: the extent a project may increase or reduce GHG emissions as compared to the existing environmental setting; whether the project emissions exceed a threshold of significance that the lead agency determines applies to the project; and the extent to which the project complies with regulations or requirements adopted to implement a statewide, regional, or local plan for the reduction or mitigation of GHG emissions (14 CCR 15064.4[b]).

Local

San Diego Association of Governments

Regional Transportation/Sustainable Communities Strategy

The passage of SB 375 requires Metropolitan Planning Organizations to prepare a sustainable communities strategy in their regional transportation plan. The San Diego Association of Governments serves as the Metropolitan Planning Organization for the San Diego region and is responsible for developing and adopting a sustainable communities strategy that integrates transportation, land use, and housing to meet GHG reduction targets set by CARB. The most recent, San Diego Forward: The 2021 Regional Plan, was adopted in 2021 and provides guidance on meeting or exceed GHG targets through implementation of five key transportation strategies. Through these strategies, the 2021 Regional Plan is projected to reduce per capita GHG emissions from cars and light-duty trucks to 20% below 2005 levels by 2035, exceeding the region's state-mandated target of 19% (SANDAG 2021a).

City of San Diego

General Plan

The City of San Diego General Plan was adopted in March 2008 and amended in 2024. The City's General Plan includes various goals and policies in the Conservation Element related to directly and indirectly reducing GHG emissions (City of San Diego 2024b). Applicable policies to the Program include the following:

CE-A.8. Reduce construction and demolition waste in accordance with Public Facilities Element, Policy PF-I.2, or by renovating or adding on to existing buildings, rather than construction new buildings.

CE-A.16. Prioritize nature-based solutions and other sustainable management practices to provide environmental, social and economic benefits and help build climate resilience.

Municipal Code

Construction and Demolition Debris Diversion Deposit Program

SDMC Sections 66.0601–66.0610 outline the Construction and Demolition Debris Diversion Deposit Program. This program is designed to encourage the recycling and reuse of materials generated during construction and demolition projects. The program sets specific diversion goals, requiring a significant portion of the debris to be recycled or reused instead of being disposed of in landfills.

The WHITEBOOK

Standard Specifications for Public Works Construction (the WHITEBOOK) has been used to establish the uniformity of plans and specifications accepted and used by those involved in public works construction. The WHITEBOOK provides general provisions on construction materials and construction methods for public works projects (City of San Diego 2021a).

Climate Action Plan

The City adopted a CAP in 2015 and most recently completed an update in 2022 (City of San Diego 2022b). The 2022 CAP establishes a communitywide goal of net zero GHG emissions by 2035, committing San Diego to an accelerated trajectory for GHG emissions. The CAP outlines strategies and measures to reduce the City's contribution to GHG emissions and align with statewide emission targets (i.e., those outlined for 2030 in SB 32). The CAP serves as a qualified GHG reduction plan for purposes of tiering under CEQA as set forth in CEQA Guidelines Section 15183.5. The CAP identified the following six strategies to achieve the goals and targets set forth below:

- Decarbonization of the Built Environment
- Access to Clean and Renewable Energy
- Mobility and Land Use
- Circular Economy and Clean Communities
- Resilient Infrastructure and Health Ecosystems
- Emerging Climate Actions

The CAP sets the target GHG emission level for 2035 at net zero emissions (i.e., cutting GHG emissions to as close to zero as possible, with any remaining emissions balanced by removals) and sets a science-based, fair share target for 2030 of 63.3% below 1990 levels, which is far stricter than the SB 32 target of 40% below 1990 levels by 2030.

CAP Consistency Regulations and CAP Consistency for Plan- and Policy-Level Documents and Public Infrastructure Projects

On August 2, 2022, the City updated its GHG threshold, which included a project's compliance with CAP Consistency Regulations as the new GHG threshold upon the applicable effective date of Ordinance O-21528 implementing the CAP Consistency Regulations. Ordinance O-21528 provides amendments to the San Diego Municipal Code to ensure that all new development is consistent with the CAP Consistency Regulations and will collectively achieve the specified GHG emission reduction targets of the CAP. The CAP Consistency Regulations establish measures that could be implemented

on a project-by-project basis to demonstrate consistency with the 2022 CAP pursuant to CEQA Guidelines Section 15183.5(b)(1)(D).

For public infrastructure projects and for plan- and policy-level environmental documents, including the Program, the City provides alternative guidance for how to demonstrate compliance with the CAP, as described in the Climate Action Plan Consistency for Plan- and Policy-Level Environmental Documents and Public Infrastructure Projects Memorandum (City of San Diego 2022c).

City of San Diego Zero Emissions Municipal Buildings & Operations Policy

In December 2024, the San Diego City Council adopted an update to Council Policy No. 900-03, the Zero Emissions Municipal Buildings & Operations Policy, which establishes an implementing framework to ensure the City leads by example in decarbonizing the municipal building sector and transitioning to a zero-emissions fleet by 2035. The Zero Emissions Municipal Buildings & Operations Policy applies to all municipal facilities and parking lots and is included in all new leases of City-owned property.

With the adoption of the Zero Emissions Municipal Buildings & Operations Policy, new construction projects will be required to be all-electric, 10% more efficient than the state code, and designed to include a solar or other renewable energy system plus a battery energy storage system large enough to cover the facility's electricity load. All new construction projects shall be designed and operated with exclusively electric systems or appliances for space conditioning, water heating, cooking, and lighting, and without using any fossil fuel energy source for non-emergency electricity generation or any other non-emergency functions. All fleet parking spaces in associated parking lots must be EV Ready (i.e. wiring to the spaces), and staff and public spaces must meet CALGreen Tier 1 requirements for EV charging infrastructure.

4.5.3 SIGNIFICANCE DETERMINATION THRESHOLDS

Thresholds used to evaluate potential impacts related to GHG emissions are based on the California Environmental Quality Act (CEQA) Guidelines Appendix G and the City's Significance Determination Thresholds (2022a). The following issue questions are addressed in this section:

1. Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment; or
2. Would the project conflict with the City's Climate Action Plan or another applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases.

4.5.4 IMPACTS ANALYSIS

Issue 1: Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Pursuant to the City of San Diego's Guidance for Assessing CAP Consistency for Plan- and Policy-Level Environmental Documents and Public Infrastructure Projects Memorandum (City of San Diego 2022c), the environmental analysis should include a discussion of the overall consistency with each of the six strategies of the CAP, as provided below.

Strategy 1: Decarbonization of the Built Environment

This strategy aims to avoid GHG emissions from buildings across the City and improve indoor air quality. It includes measures to address emissions from existing buildings, municipal facilities, and new development.

The Program involves improvements to existing park areas and would not construct any new buildings or create new emissions from existing buildings or municipal facilities. While Strategy 1 is not directly applicable to the Program, the Program would not conflict with Strategy 1 goals.

Strategy 2: Access to Clean and Renewable Energy

This strategy maintains the City's commitment to 100% renewable energy through San Diego Community Power, sets targets for converting the City's fleet of vehicles to electric, and aims to increase the number of electric vehicles used by our communities.

As an existing parks improvement, the Program does not include any features related to distributed energy generation, energy storage, or new parking. While Strategy 2 is not directly applicable to the Program, the Program would not conflict with Strategy 2 goals.

Strategy 3: Mobility and Land Use

This strategy focuses on emissions from transportation and includes actions that support mode shift through mobility and land use actions and policies.

The Program would not conflict with Strategy 3, Mobility and Land Use, because the Program is not anticipated to generate a permanent increase in vehicle trips or vehicle miles traveled compared to the existing baseline conditions. An approved temporary Traffic Control Plan would be implemented during construction to ensure continued and ongoing circulation is available during construction-related activities. Temporary lane closures on roadways would not result in a permanent change to the level of services of the surrounding transportation system and would not impact any

public transit facilities. Furthermore, the Bicycle and Pedestrian Improvements Element would support mode shift and improve overall circulation, safety, and enjoyment of bicyclists and pedestrians in Mission Bay Park. Deferred maintenance activities would improve and repair existing facilities that would support mobility throughout the Improvement Zone, including ADA access ramps, parking lot pavement, biofiltration basins, and lighting sustainability enhancements. The signage update would also improve mobility by updating the design of wayfinding and information signs as well as updated locations for placement of new signs for better visibility and provision of information. Therefore, the Program would be consistent with Strategy 3.

Strategy 4: Circular Economy and Clean Communities

This strategy maintains a 90% waste diversion rate, as well as methane capture from landfill and wastewater treatment facilities. It also includes actions to increase healthy food access and food recovery.

The Program includes the requirement for the construction contractor to comply with the latest edition of the WHITEBOOK. Sections 5-14 of the WHITEBOOK, Construction and Demolition Waste Management, requires a minimum waste management reduction goal and the preparation of a Waste Management Form. The Program would comply with applicable construction and demolition diversion requirements, including the City of San Diego's Construction and Demolition Debris Diversion Ordinance. Construction would include the reuse of excavated soil for certain Program elements. Program operations would involve channel and culvert maintenance and removal of nonnative vegetation; however, the Program would not substantially increase solid waste production above existing conditions. Therefore, the Program would be consistent with Strategy 4.

Strategy 5: Resilient Infrastructure and Healthy Ecosystems

This strategy will help the City thrive in the face of the impacts of climate change through a greater focus on the greening of the City, starting with Communities of Concern. It also includes targets for the restoration of salt marshland for sequestration and increasing local water supply through Pure Water San Diego.

The Program is located at the coastline in the City of San Diego bounded by the communities of Pacific Beach to the north, Ocean Beach to the south, Mission Beach to the west, and Interstate 5 to the east. The Improvement Zone is surrounded by Communities of Concern, which are communities identified by the City that have historically had less access to opportunities due to environmental justice and social equity issues. The Program would expand endangered or threatened species preserves and upland habitat areas within Mission Bay Park, which would support greening of the City. The Program would improve Mission Bay Park through wetland expansion, water quality improvements, and the protection and expansion of eelgrass beds. The Program's wetland expansion would create healthier ecosystems by providing water quality treatment and enhancing habitats, while also balancing the

need for flood control and resource mitigation. Furthermore, the Program would increase resiliency to climate change, specifically sea level rise, in the Communities of Concern surrounding Mission Bay Park. While there would be impacts to coastal marsh in some areas due to construction, the Program elements would result in restored habitats that would be suitable for mitigation of these impacts to wetland habitat, as well as potentially serve as mitigation for other projects that impact wetlands. Further, implementation of the Program would require compensatory wetlands mitigation for any direct impacts to jurisdictional aquatic resources that would comply with City of San Diego, state, and/or federal authorizations. The Program would target inadequate and failing shorelines within Mission Bay Park, and prioritize shoreline restoration treatments, including restoration of beach sand and stabilization of erosion control features. The Program would restore the seawall, which would replace the existing seawall along Mission Beach Boardwalk and extend the seawall by approximately 375 feet. All the Program's objectives directly support resilient infrastructure and healthy ecosystems, and they demonstrate that the Program would support and be consistent with Strategy 5.

Strategy 6: Emerging Climate Actions

Strategy 6 of the City's 2022 CAP addresses GHG emissions that will remain after all identified measures and actions have been achieved, including implementation of emerging climate actions. Further action, new policies, technological innovation, partnerships, and research are all necessary components of emerging climate actions that are beyond the 2022 CAP ability to quantify and assess.

The Program's improvements to existing park areas, as described herein, would directly support broad climate action goals and strategies because the Program is beneficial for the function of resilient infrastructure, healthy ecosystems, and the mobility through bicycle and pedestrian infrastructure in Mission Bay Park. The Program's park improvements are short-term construction projects that would not prevent the City from pursuing further actions, new policies, technological innovations, partnerships, and research components of emerging climate actions that are beyond the 2022 CAP. While Strategy 6 is not directly applicable to the Program, the Program does not include any features that would conflict with Strategy 6 goals. The Program would have a **less-than-significant** GHG impact.

Issue 2: Would the project conflict with the City's Climate Action Plan or another applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

As described above under Issue 1, the Program would be consistent with and would not conflict with the appliable strategies of the City's CAP. As such, the Program would not conflict with the City's CAP or another applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs.

Furthermore, the Program would not conflict with the City's General Plan Policies CE-A.8 and CE-A.16 or the Zero Emissions Municipal Buildings & Operations Policy. The Program would comply with applicable construction and demolition diversion requirements, including the City of San Diego's Construction and Demolition Debris Diversion Ordinance. In addition, the Program includes creating and restoring wetlands, which are a nature-based solution to climate change, as they capture large amounts of greenhouse gas emissions. The Program would have a **less-than-significant** GHG impact.

4.5.5 MITIGATION MEASURES

No mitigation would be required.

4.5.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Issue 1: Greenhouse Gas Emissions

Impacts would remain **less than significant**.

Issue 2: Conflicts with Plans or Policies

Impacts would remain **less than significant**.

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4.6 HISTORICAL RESOURCES

This section of the Environmental Impact Report (EIR) includes an analysis of the potential impacts to historical resources, including built environment and archaeological resources, that may result from the proposed Mission Bay Park Improvements Program (Program). This section also describes the associated existing conditions of the Mission Bay Park Improvement Zone (Improvement Zone) and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Program. Historical resources include all properties (e.g., historic, archaeological, landscapes, traditional) eligible or potentially eligible for the National Register of Historic Places (NRHP), as well as those that may be significant pursuant to state and local laws and registration programs such as the California Register of Historical Resources (CRHR) or the City of San Diego Historical Resources Register. In San Diego, historical resources may include historical buildings, historical structures or historical objects, important archaeological sites, historical districts, historical landscapes, and traditional cultural properties. They include buildings, structures, objects, archaeological sites, districts or landscapes possessing physical evidence of human activities that are typically over 45 years old, regardless of whether they have been altered or continue to be used. Historical resources also include traditional cultural properties. Historical resources in the San Diego region span a time frame of at least the last 10,000 years and include both the prehistoric and historic periods. For the purposes of this EIR, historical resources consist of archaeological sites and built environment resources determined as significant under the California Environmental Quality Act (CEQA).

Archaeological resources include prehistoric and historic locations or sites where human actions have resulted in detectable changes to the area. This can include changes in the soil and the presence of physical cultural remains. Archaeological resources can have a surface component, a subsurface component, or both. Historic archaeological resources are those originating after European contact. These resources may include subsurface features such as wells, cisterns, or privies. Other historic archaeological remains include artifact concentrations, building foundations, or remnants of structures.

The analysis in this section is based, in part, on the following reports:

- Cultural Resources Constraints Analysis for the Mission Bay Park Improvements Program, dated July 2025, prepared by Dudek (CRCA) (Appendix N)
- Mission Beach Seawall and Bulkhead Memorandum, dated September 1, 2021, updated June 6, 2025, and prepared by Dudek (Seawall Memo) (Appendix O)

4.6.1 EXISTING CONDITIONS

The Mission Bay Park Improvement Zone is located in the central coastal portion of San Diego County. The Improvement Zone includes Mission Bay itself and its shoreline and is surrounded by highly urbanized areas in all directions.

As discussed in the CRCA, Mission Bay remained a tidal marsh until the Army Corps of Engineers attempted to reroute the terminus of the San Diego River into the Bay in 1853. The rerouting structure, known as the Derby Dike, lasted 2 years until it was washed away by a flood. Besides this temporary development, Mission Bay was largely undeveloped and used as sheep pasture and outdoor sports until the 1880s when the Bay's commercial potential was realized. In the 1920s, entrepreneur John D. Spreckels subdivided Mission Beach, constructed an amusement park, and build the La Jolla Streetcar. In 1929, Mission Bay was incorporated into the California State Park System, but the Great Depression and World War II delayed any further developments.

The City developed Mission Bay "into a tourist and recreational center to help diversify the City's economy" (City of San Diego 2019a). Over a period of 20 years between the 1940s and 1960s, Mission Bay was dredged and park lands were established. Fiesta Island and Vacation Island are manufactured island parks resulting from this effort (Appendix N). Today, Mission Bay includes beaches, docks, bicycle and pedestrian paths, and multiple parks and playgrounds.

Records Search

A South Coastal Information Center records search was conducted for Improvement Zone in June 2019. The records search indicated that 192 previous cultural resource studies have been conducted within 1 mile of the Improvement Zone, 66 of which included portions of the individual projects/components identified in the Program. A total of 135 previously identified cultural resources are located within 1 mile of the Improvement Zone, 16 of which intersected the Improvement Zone. In addition, two well-known designated historic resources are located within the Belmont Park area of the Improvement Zone in Mission Beach. These 18 previously identified cultural resources are from the historical and prehistorical eras and are identified in Table 4.6-1.

Table 4.6-1.
Previously Identified Cultural Resources Within Mission Bay Park Improvement Zone

Primary No.	Trinomial	Era	Description	Intersects	Designation
P-37-000045	CA-SDI-000045	Historical	Ocean Beach Gateway Archaeological Site	Mission Bay Park Improvement Zone	Local

Table 4.6-1.
Previously Identified Cultural Resources Within Mission Bay Park Improvement Zone

Primary No.	Trinomial	Era	Description	Intersects	Designation
P-37-000047	CA-SDI-000047	Prehistoric	Shell Midden	Mission Bay Park Improvement Zone	
P-37-005017	CA-SDI-005017	Prehistoric	Village Of Rinconada	Rose Creek Bike Path	
P-37-011571	CA-SDI-011571	Prehistoric	Artifact scatter	Mission Bay Park Improvement Zone	
P-37-016166	—	Historical	Historical structure	Mission Bay Park Improvement Zone	Historic Resources Board Site No. 398
P-37-016167	—	Historical	Historical structure	Mission Bay Park Improvement Zone	
P-37-016168	—	Historical	Historical structure	Mission Bay Park Improvement Zone	
P-37-016170	—	Historical	Historical structure	Mission Bay Park Improvement Zone	
P-37-016522	—	Historical	Ocean Front Walk	Seawall Bulkhead Restoration	
P-37-016543	—	Historical	Historical structure	Mission Bay Park Improvement Zone	
P-37-028406	—	Historical	Historical structure	Mission Bay Park Improvement Zone	

Table 4.6-1.
Previously Identified Cultural Resources Within Mission Bay Park Improvement Zone

Primary No.	Trinomial	Era	Description	Intersects	Designation
P-37-029025	—	Historical	District: Beach Cottage Community Plan Area	Mission Bay Park Improvement Zone	
P-37-034332	—	Historical	Railroad bridge	Mission Bay Park Improvement Zone	
P-37-034333	—	Historical	Bridge	Mission Bay Park Improvement Zone	
P-37-036520	—	Unknown	Unknown	Mission Bay Park Improvement Zone	
P-37-036521	—	Unknown	Unknown	Mission Bay Park Improvement Zone	
—	—	Historical	The Plunge Belmont Amusement Park*	Mission Bay Park Improvement Zone	Historic Resources Board Site No. 89
—	—	Historical	Mission Beach Roller Coaster*	Mission Bay Park Improvement Zone	Historic Resources Board Site No. 90; NRHP Listed

Source: Appendix N.

One of the previously identified cultural resources (CA-SDI-11571) is located adjacent to one of the individual components identified in the Program and three resources (P-37-016522 and CA-SDI-005017) intersect individual components identified in the Program. These resources are described in more detail below.

CA-SDI-11571

CA-SDI-11571 is located adjacent to the Crown Point Restoration Project, which is part of the Shoreline Restoration Element of the Program. The prehistoric cultural resource was first recorded by Malcolm Rogers, at an unknown date, as a prehistoric habitation site encompassing the Crown Point Peninsula. He recorded the resource as midden soils, charcoal, ground stone, and a lithic scatter. However, the land was developed into a residential neighborhood and the record was updated in 1990 by ERC Environmental to note exposed midden and a shell lens in exposed bluff walls, and a lithic tool at the base of the bluff. Trenching occurred in 1992 by Ogden Environmental and Energy Services, but no intact cultural features were observed. Further, additional survey and monitoring have occurred within the original site boundary in the past years.

P-37-016522

P-37-016522 intersects the Restoration of the Seawall Bulkhead Element of the Program. The Mission Beach seawall (bulkhead and walkway or boardwalk) was previously evaluated for significance under NRHP and CRHR criteria by Milford Wayne Donaldson in 1997 and again in 2014 by IS Architecture. Donaldson found the 2.4-mile-long seawall eligible for listing in the NRHP and the CRHR under Criteria A/1, B/2, and C/3. IS Architecture found a 0.3-mile section of the seawall eligible for listing in the NRHP under Criteria A, B, and C. The 0.3-mile section of the seawall is bounded by Ventura Place to the north and San Fernando Place to the south. The two reports did not evaluate the seawall under City of San Diego designation criteria. On September 9, 1997, State Historic Preservation Officer (SHPO) Cherilyn Widell concurred with two of the three criteria put forth by Donaldson's 1997 report. SHPO determined that the seawall is eligible for inclusion in the NRHP, at the level of local significance, under Criteria A and C. SHPO did not concur with Donaldson's recommendation for eligibility under Criterion B. The eligibility finding included the entire 2.4-mile-long length of the seawall from Thomas Avenue to the north and the South Mission Beach jetty to the south. The 2014 IS Architecture report stated, "IS Architecture concurs with the chosen National Register (NR) designation criteria as put forth by the City of San Diego Historic Resources staff," this included Criteria A, B, and C despite SHPO's 1997 determination of eligibility for only Criteria A and C. The recommended California Historical Resource Status Codes for P-37-016522 are 2S2, individual property determined eligible for NRHP by a consensus through Section 106 process. Listed in the CRHR and 5S2, individual property that is eligible for local listing or designation.

CA-SDI-005017

CA-SDI-005017 intersects Rose Creek Bike Path, a component in the Bicycle and Pedestrian Improvements Element. The prehistoric archaeological resource consists of La Rinconada de Jamo, an ethnohistoric Native American village located at the mouth of Rose Canyon. The site was recorded by

archaeologists in the late 1970s and described as a large habitation site including many cobble hearth features, scattered ground and flaked stone artifacts, and midden soil with burned shell. Other findings provide evidence of ceremonial activities. All previous reports noted that the area has been highly modified and developed, much of the land being plowed by the 1970s. Despite the previous developments, midden soil was observed during excavations. While monitoring excavations for the installation of storm sewer improvements, archaeologists identified midden soil under fill soil as deep as 1.5 m (approximately 5 ft).

Tribal Correspondence

Under AB 52, government-to-government consultation with Native American tribes would be initiated by the City of San Diego with Tribes that have requested notification. The government-to-government consultation with Native American tribes under AB 52 would begin when the City sends the 45-day notification letter to tribes on the day this EIR goes out for public review.

The City met with Lisa Cumper, Tribal Historic Preservation Officer for Jamul Indian Village and she informed the City that there is an increased potential of encountering unanticipated Tribal Cultural Resources during ground-disturbing activities associated with the Seawall Bulkhead Restoration Project Element. Ms. Cumper stated that a natural source of pitch used by the Kumeyaay to adhere projectile points to shafts is located in the area and projectile points have been linked to the area of the seawall. Ms. Cumper recommended cultural monitoring during ground disturbance associated with the Seawall Bulkhead Restoration Project Element. The City provided a memorandum dated November 14, 2025, documenting conclusion notes for the consultation meeting with Ms. Cumper and the City's intent to close AB 52 consultation.

Pedestrian Surveys

In 2019, Tierra archaeologist Hillary Murphy conducted intensive pedestrian surveys of the Improvement Zone alongside Native American Monitors Banning Taylor and Alisa Contreras, of Red Tail Environmental, Inc. On July 20, 2021, Dudek Architectural Historian Nicole Frank, MSHP, conducted an intensive-level survey of P-37-016522, which intersects the Restoration of Seawall Bulkhead Element. The survey entailed walking the length of the seawall, documenting the resource with notes and photographs, specifically noting character-defining features, spatial relationships, and observed alterations. Additional pedestrian surveys were completed by Dudek Archaeologists in 2024 and 2025, accompanied by Red Tail Environmental, Inc. Native American Monitor Gail Kenyon. Pedestrian surveys focused on the individual component locations identified within the Seawall Improvements, Shoreline Restoration, Upland Habitat Restoration, Water Quality and Wetland Restoration, and Bicycle and Pedestrian Improvements Elements of the Program.

CA-SDI-11571

During the pedestrian surveys, CA-SDI-11571 was identified as physically separated from the Crown Point Shoreline Restoration Project, which is a component of the Restoration of Shoreline Element, It is separated by the Crown Point Bluffs.

P-37-016522

P-37-016522 was identified during the pedestrian surveys and is confirmed to be altered by the Seawall Improvements Element of the Program.

CA-SDI-000045

During the pedestrian surveys, the boundary of CA-SDI-000045 was confirmed to be bisected by a component of the Bicycle and Pedestrian Improvements Element, however, this component would not be implemented as part of this Program, because a separate improvement project has been initiated under a separate CEQA document. No cultural resources were observed during the survey.

CA-SDI-005017

During the pedestrian surveys, the boundary of CA-SDI-005017 was confirmed to be bisected by Rose Creek Bike Path, a component of the Bicycle and Pedestrian Improvements Element. However, no cultural resources were observed during the survey.

Summary

Other than the resources identified in the records search, no new cultural, archaeological, or built environment historical resources were observed at any of the component locations during the pedestrian surveys.

4.6.2 REGULATORY SETTING

The following describes the planning framework and additional regulatory documents, plans, and policies relevant to historical resources for the proposed Program.

Federal

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act was enacted on November 16, 1990, to address the rights of lineal descendants, Indian tribes, and Native Hawaiian organizations to Native

American cultural items, including human remains, funerary objects, sacred objects, and objects of cultural patrimony. The act assigned implementation responsibilities to the Secretary of the Interior.

National Historic Preservation Act and National Register of Historic Places

The National Historic Preservation Act authorizes the NRHP, which is the United States' official list of districts, sites, buildings, structures, and objects worthy of preservation. Overseen by the National Park Service, under the U.S. Department of the Interior, NRHP listings encompass all National Historic Landmarks, as well as historic areas administered by the National Park Service.

NRHP guidelines for the evaluation of historic significance were developed to be flexible and to recognize the accomplishments of all who have made significant contributions to the nation's history and heritage. Its criteria are designed to guide state and local governments, federal agencies, and others in evaluating potential entries in the NRHP. For a property to be listed in or determined eligible for listing, it must be demonstrated to possess integrity and to meet at least one of the following criteria:

The quality of significance in American history, architecture, archaeology, 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 the 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.

Integrity is defined in NRHP guidance, How to Apply the National Register Criteria, as "the ability of a property to convey its significance. To be listed in the NRHP, a property must not only be shown to be significant under the NRHP criteria, but it also must have integrity" (NPS 1990). NRHP guidance further asserts that certain property types are not considered eligible for listing in the NRHP, except under certain circumstances (NPS 1990).

A historic property is defined as "any prehistoric or historic district, site, building, structure, or object included in, or eligible for inclusion in, the NRHP maintained by the Secretary of the Interior. This term includes artifacts, records, and remains that are related to and located within such properties. The term includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization and that meet the NRHP criteria" (36 CFR Sections 800.16[i][1]).

Effects on historic properties under Section 106 of the National Historic Preservation Act are defined in the assessment of adverse effects in 36 CFR Sections 800.5(a)(1):

> An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

To comply with Section 106 of the National Historic Preservation Act, the criteria of adverse effect are applied to historic properties, if any exist in the project site, pursuant to 36 CFR Sections 800.5(a)(1). If no historic properties are identified in the project site, a finding of "no historic properties affected" would be made for the project. If there are historic properties in the project site, application of the criteria of adverse effect would result in project-related findings of either "no adverse effect" or of "adverse effect," as described above. A finding of no adverse effect may be appropriate when the undertaking's effects do not meet the thresholds in criteria of adverse effect 36 CFR Sections 800.5(a)(1), in certain cases when the undertaking is modified to avoid or lessen effects, or if conditions were imposed to ensure review of rehabilitation plans for conformance with the Secretary of the Interior's Standards for the Treatment of Historic Properties (codified in 36 CFR Part 68). If adverse effects findings were expected to result from the project, mitigation would be required, as feasible, and resolution of those adverse effects by consultation may occur to avoid, minimize, or mitigate adverse effects on historic properties pursuant to 36 CFR Part 800.6(a).

State

California Environmental Quality Act

As described further below, the following CEQA statute and CEQA Guidelines are relevant to the analysis of historic, archaeological, and tribal cultural resources:

> California Public Resources Code Section 21083.2(g): Defines "unique archaeological resource."

1. California Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5(a): Define historical resources. In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change" in the significance of

a historical resource. It also defines the circumstances when a project would materially impair the significance of a historical resource.

2. California Public Resources Code Section 21074(a): Defines "tribal cultural resources" and Section 21074(b): Defines a "cultural landscape."
3. California Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5(e): These provisions set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.
4. California Public Resources Code Sections 21083.2(b)-(c) and CEQA Guidelines Section 15126.4: These measures provide information regarding the mitigation framework for archaeological and historic resources, including options of preservation-in-place mitigation; and identify preservation-in-place as the preferred manner of mitigating impacts to significant archaeological sites.

Under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5[b]). A "historical resource" is any site listed or eligible for listing in the CRHR. The CRHR listing criteria (14 CCR 15064.5[a][3]) are intended to examine whether the resource in question:

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
B. Is associated with the lives of persons important in our past;
C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
D. Has yielded, or may be likely to yield, information important in pre-history or history.

The term "historical resource" also includes any site described in a local register of historical resources or identified as significant in a historical resources survey (meeting the requirements of California Public Resources Code Section 5024.1[g]).

CEQA was amended in 2014 through Assembly Bill 52, which created a new category of tribal cultural resources that must be considered under CEQA and applies to all projects that file a Notice of Preparation or notice of negative declaration or mitigated negative declaration on or after July 1, 2015. Assembly Bill 52 requires lead agencies to provide notice to and begin consultation with California Native American tribes that are traditionally and culturally affiliated with the geographic area of a project if that

tribe has requested, in writing, to be kept informed of projects by the lead agency prior to the determination whether a negative declaration, mitigated negative declaration, or EIR will be prepared.

All historical resources and unique archaeological resources – as defined by statute – are presumed to be historically or culturally significant for purposes of CEQA (California Public Resources Code Section 21084.1; 14 CCR Section 15064.5[a]). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (California Public Resources Code Section 21084.1; 14 CCR Section 15064.5[a]). A site or resource that does not meet the definition of "historical resource" or "unique archaeological resource" is not considered significant under CEQA and need not be analyzed further (California Public Resources Code Section 21083.2[a]; 14 CCR Section15064.5[c][4]).

Pursuant to these sections, the CEQA first evaluates whether a project site contains any historical resources, then assesses whether that project will cause a substantial adverse change in the significance of a historical resource such that the resource's historical significance is materially impaired.

When a project significantly affects a unique archaeological resource, CEQA imposes special mitigation requirements.

Finally, CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when an initial study identifies the existence of, or the probable likelihood, of Native American human remains within the project, or in the event Na any human remains are discovered in any location other than a dedicated cemetery. These procedures are set forth in California Public Resources Code Section 5097.98.

California Register of Historical Resources

In California, the term "historical resource" includes, but is not limited to, "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California Public Resources Code Section 5020.1[j]). In 1992, the California legislature established the CRHR "to be used by state and local agencies, private groups, and citizens to identify the state's historical resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (California Public Resources Code Section 5024.1[a]). A resource is eligible for listing in the CRHR if the State Historical Resources Commission determines that it is a significant resource and that it meets any of the following NRHP criteria (California Public Resources Code Section 5024.1[c]):

1. Associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage

2. Associated with the lives of persons important in our past
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values
4. Has yielded, or may be likely to yield, information important in prehistory or history

Resources less than 50 years old generally are not considered for listing in the CRHR but may be considered if it can be demonstrated that sufficient time has passed to understand the historical importance of the resource (see 14 CCR Section 4852[d][2]).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing on the NRHP are automatically listed on the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under local ordinances or identified through local cultural resource surveys. The State Historic Preservation Office maintains the CRHR.

Native American Historic Resource Protection Act

The Native American Historic Resource Protection Act (California Public Resources Code Section 5097, et seq.) addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the Native American Heritage Commission (NAHC) to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act makes it a misdemeanor punishable by up to 1 year in jail to deface or destroy a Native American historical or cultural site that is listed or may be eligible for listing in the CRHR.

California Native American Graves Protection and Repatriation Act

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

California Health and Safety Code, Section 7050.5

California law protects Native American burials, skeletal remains, and associated grave goods, regardless of their antiquity, and provides for the sensitive treatment and disposition of those

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

Local

City of San Diego Historical Resources Regulations

The City's Historical Resources Regulations (San Diego Municipal Code [SDMC] Chapter 14, Article 3, Division 2) were adopted in January 2000, and updated April 2024 providing a balance between sound historic preservation principles and the rights of private property owners. The purpose and intent of the regulations are outlined as follows:

> To protect, preserve and, where damaged, restore the historical resources of San Diego, which include historical buildings, historical structures or historical objects, important archaeological sites, historical districts, historical landscapes, and traditional cultural properties. These regulations are intended to assure that development occurs in a manner that protects the overall quality of historical resources. It is further the intent of these regulations to protect the educational, cultural, economic, and general welfare of the public, while employing regulations that are consistent with sound historical preservation principles and the rights of private property owners.

The regulations apply to all development within the City of San Diego when cultural resources are present within the premises regardless of the requirement to obtain Neighborhood Development Permit or Site Development Permit. The regulations have been developed to implement applicable local, state, and federal policies and mandates. Included in these are the General Plan, CEQA, and Section 106 of the National Historic Preservation Act of 1966. Historical resources, in the context of the City's regulations, include designated historical resources, historical buildings, historical structures, historical objects, important archaeological sites, historical districts, historical landscapes, or traditional cultural properties. Designated historical resources include historical buildings, historical districts, historical landscapes, historical objects, or historical structures, important archaeological sites or traditional cultural properties which have been designated by the Historical

Resources Board. These resources are usually over 45 years old, and they may have been altered or still be in use.

Compliance with the regulations begin with the determination of the need for a site-specific survey for a project. Pursuant to SDMC Section 143.0212(a), a historic property (built environment) survey can be required for any parcel containing a structure that is over 45 years old and not located within any area identified as exempt in the Historical Resource Guidelines or for any parcel identified as sensitive on the Historical Resource Sensitivity Map. SDMC Section 143.0212(b) requires that historical resource sensitivity maps be used to identify properties in the City that have a likelihood of containing archaeological sites. These maps are based on records of the California Historical Resources Information System maintained by the South Coastal Information Center at San Diego State University, archival research from the San Diego Museum of Man, and site-specific information in the City's files. If records show an archaeological site exists on or immediately adjacent to a subject property, the City would require a survey. In general, archaeological surveys are required when the proposed development is on a previously undeveloped parcel, if a known resource is recorded on the parcel or within a 1-mile radius, or if a qualified consultant or knowledgeable City staff member recommends it. In both cases, the determination for the need to conduct a site-specific survey must be made within 10 days of submittal for a construction permit (ministerial) or 30 days for a development permit (discretionary) pursuant to SDMC Section 143.0212(c).

SDMC Section 143.0212(d) states that if a site-specific survey is required, it shall be conducted consistent with the Historical Resources Guidelines. Using the survey results and other available applicable information, the City shall determine whether a historical resource exists, whether it is eligible for designation as a designated historical resource, and precisely where it is located.

City of San Diego Historical Resources Guidelines

Historical Resources Guidelines (City of San Diego 2024c) are incorporated in the San Diego Land Development Manual by reference. The guidelines establish a development review process to review for projects in the City. This process is composed of two aspects: (1) the implementation of the Historical Resources Regulations and (2) the determination of impacts and mitigation under CEQA. The guidelines provide property owners, the development community, consultants, and the public with explicit guidelines for the management of historical resources located within City jurisdiction. These guidelines are designed to implement the City's Historical Resources Regulations contained in the Land Development Code (Chapter 14, Division 3, Article 2) in compliance with applicable local, state, and federal policies and mandates, including, but not limited to, the City's General Plan, CEQA, and Section 106 of the National Historic Preservation Act of 1966. The intent of the guidelines is to ensure consistency in the management of the City's historical resources, including identification, evaluation, preservation/mitigation, and development.

The City's Historical Resources Guidelines (City of San Diego 2024c) observe the following:

> Historical resources include all properties (historic, archaeological, landscapes, traditional, etc.) eligible or potentially eligible for the National Register of Historic Places, as well as those that may be significant pursuant to state and local laws and registration programs such as the California Register of Historical Resources or the City of San Diego Historical Resources Register. "Historical resource" means site improvements, buildings, structures, historic districts, signs, features (including significant trees or other landscaping), places, place names, interior elements and fixtures designated in conjunction with a property, or other objects of historical, archaeological, scientific, educational, cultural, architectural, aesthetic, or traditional significance to the citizens of the City. They include buildings, structures, objects, archaeological sites, districts or landscapes possessing physical evidence of human activities that are typically over 45 years old, regardless of whether they have been altered or continue to be used. Historical resources also include traditional cultural properties. The following definitions are based, for the most part, on California's Office of Historic Preservation's (OHP) Instructions for Recording Historical Resources and are used to categorize different types of historical resources when they are recorded.

These guidelines are intended to protect, preserve, and, where damaged, restore the historical resources of San Diego. The regulations apply to all development within the City of San Diego when historical resources are present within the premises regardless of the requirement to obtain Neighborhood Development Permit or Site Development Permit. The Historical Resources Regulations require that traditional cultural properties be protected and preserved as a condition of discretionary approval. Minor alterations may be allowed if the alteration does not affect the special character or special historical, architectural, archaeological, or cultural value of the resource. Limited development may encroach into important archaeological sites if adequate mitigation measures are provided as a condition of approval. These guidelines guide the development review process from the need for a survey and how impacts are assessed to available mitigation strategies and report requirements and include appropriate methodologies for treating historical resources located in the City. In general, the City's historical resources provisions build on federal and state laws and guidelines in an attempt to streamline the process of considering impacts to historical resources within the City's jurisdiction, while maintaining that some resources not significant under federal or state law may be considered historical under the City's Guidelines. In order to apply the criteria and determine the significance of potential project impacts to a historical resource, the project site of the project must be defined for both direct impacts and indirect impacts. Indirect impacts can include increased public access to an archaeological site, or visual impairment of a historically significant view shed related to a historic building or structure.

City of San Diego General Plan

The City's General Plan contains a Historic Preservation Element that seeks "to guide the preservation, protection, restoration, and rehabilitation of historical and cultural resources and maintain a sense of the City. To improve the quality of the built environment, encourage appreciation for the City's history and culture, maintain the character and identity of communities, and contribute to the City's economic vitality through historic preservation" (City of San Diego 2024b). The Historic Preservation Element pertains to both historical and cultural resources that include elements from the built environment such as buildings, structures, objects, and districts; landscape features, including significant trees and plantings, hardscape, fountains, lighting, sculptures, signs and other natural or designed features; interior elements and fixtures designated in conjunction with a property; significant archaeological sites; and traditional cultural properties (City of San Diego 2024b). The Historic Preservation Element contains the following goals:

A. Identification and Preservation of Historical Resources:
    - Identification of the historical resources of the City
    - Preservation of the City's important historical resources
    - Integration of historic preservation planning in the larger planning process
B. Historic Preservation, Education, Benefits, and Incentives:
    - Public education about the importance of historical resources
    - Provision of incentives supporting historic preservation
    - Cultural heritage tourism promoted to the tourist industry

City of San Diego Historical Resources Board Designation Criteria

The Historical Resources Guidelines of the City's Land Development Manual identify the criteria under which a resource may be historically designated. Additionally, the "Guidelines for the Application of Historical Resources Board Designation Criteria" (Land Development Manual, Appendix E, Part 2) provide detailed guidance on how to evaluate a property under the City's local designation criteria. The Historical Resources Guidelines state that any improvement, building, structure, sign, interior element and fixture, site, place, district, area, or object may be designated a historical resource by the City's Historical Resources Board if it meets one or more of the following designation criteria:

A. Exemplifies or reflects special elements of the City's, a community's or a neighborhood's historical, archaeological, cultural, social, economic, political, aesthetic, engineering, landscaping or architectural development;

B. Is identified with persons or events significant in local, state or national history;

C. Embodies distinctive characteristics of a style, type, period or method of construction or is a valuable example of the use of indigenous materials or craftsmanship;

D. Is representative of the notable work of a master builder, designer, architect, engineer, landscape architect, interior designer, artist or craftsman;

E. Is listed or has been determined eligible by National Park Service for listing on the National Register of Historic Places or is listed or has been determined eligible by the State Historical Preservation Office for listing on the State Register of Historical Resources; or

F. Is a finite group of resources related to one another in a clearly distinguishable way or is a geographically definable area or neighborhood containing improvements which have a special character, historical interest or aesthetic value or which represent one or more architectural periods or styles in the history and development of the City.

Mission Bay Park Master Plan

The Mission Bay Park Master Plan provides a historical overview of Mission Bay Park. While the Plan acknowledges the celebrated history of Mission Bay Park, it also addresses that changing values, water quality degradation, and new recreation demands call for updates to the Mission Bay Park. Regarding the history of the Mission Bay Park, the Master Plan includes the following:

- A park in which an interpretive signage program informs visitors about the significance and historical narrative of the landscape of the Bay.

4.6.3 SIGNIFICANCE DETERMINATION

Thresholds used to evaluate potential impacts related to cultural resources are based on applicable criteria in the CEQA Guidelines Appendix G and the City's CEQA Significance Determination Thresholds (2022a). The following issue questions are addressed in this section:

1. Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5;
2. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5; or
3. Would the project result in the disturbance of any human remains, including those interred outside of formal cemeteries.

Impacts from each element were considered in evaluating potential impacts of the Program to historical resources. Direct impacts to historic and archaeological resources generally result from

activities that will cause damage to or have an adverse effect on the resource. Indirect impacts to historic and archaeological resources are often the result of increased public accessibility to resources not otherwise subject to impacts which may result in an increased potential for vandalism and site destruction. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time. According to the City's Historical Resources Guidelines, the loss of a historical resource database due to mitigation by data recovery may be considered a cumulative impact. In the built environment, cumulative impacts most often occur to districts, where several minor changes to contributing properties, their landscaping, or to their setting over time could result in a significant loss of integrity to the district as a whole. Cumulative impacts are discussed in Section 5.0 Cumulative, of this EIR.

4.6.4 IMPACT ANALYSIS

Issue 1: Would the project cause a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5?

Much of the Improvement Zone has been developed for recreational uses and is highly disturbed. Past dredging and filling activities that created Mission Bay Park has already changed the cultural landscape of the area. The Geotechnical Report prepared for the Program (Appendix P) identifies that a majority of the Improvement Zone, including the various islands, coves, shorelines, creek, and upland habitat areas, is made of artificial fill consisting of dredged, hydraulically placed material.

The CRCA addresses archaeological and cultural historic resources while the Seawall Memo specifically addresses the Mission Beach Seawall and Bulkhead in detail, which is a built environment historic resource in the Improvement Zone. These studies included research and visual surveys for the purposes of providing historic context and identifying the potential for historic resources to occur.

The CRCA includes a detailed discussion of the records search and pedestrian survey. Portions of the Improvement Zone have been previously surveyed for cultural resources. The South Coastal Information Center records search resulted in the identification of 16 resources within the Improvement Zone. Only four of the identified resources intersect the components identified in the elements of the Program: CA-SDI-011571, P-37-016522, CA-SDI-000045, CA-SDI-005017. Out of these four resources, only P-37-016522 is a built environment historical resource and is discussed in detail below. The other resources are discussed under other issues or in Section 4.12, Tribal Cultural Resources. Refer to Table 4.6-1 for a complete list of previously recorded resources in the Improvement Zone. Archival review of P-37-016522, which contains a historical ocean front walk, suggests that the resource would be altered by the Program's implementation.

Site surveys were conducted in 2019 and 2024 to identify potential historical resources within the Improvement Zone. The surveys focused on the individual component locations identified within the

Seawall Bulkhead, Shoreline Restoration, Upland Habitat Restoration, Water Quality and Wetland Restoration and Bicycle and Pedestrian Improvements Elements of the Program. The surveys identified that the element areas have all been extensively developed ranging from pavement covered parking lots, to channeled creeks, to human engineered islands, and no new resources were identified. The findings are discussed further in the applicable element discussion below.

The Seawall Memo includes a summary of preliminary research and fieldwork findings; a timeline of the resource's development; a delineation of sections per their dates of construction that contribute to the previously established significance; a summary of records search results and previous evaluations; the identification of character-defining features and an integrity analysis of the Mission Beach Seawall (including bulkhead and walkway or boardwalk) and recommendations. The Seawall Memo also clarifies how the seawall has been altered and changed over time. The Seawall Memo has been updated to include the impacts assessment for the Mission Beach Seawall and the appropriate mitigation measures to reduce the identified potentially significant impact to a built environment cultural resource. The findings are discussed further in the applicable element discussion below.

In general, the Program is found to not be consistent with the Secretary of the Interior's Standards for Rehabilitation (Standards for Rehabilitation); thus, the Program would not be in conformance with the City's Historical Resources Regulations. Therefore, the Program would cause a **potentially significant** impact to a historical resource, the Mission Beach Seawall.

Wetland and Water Quality Improvements Element

This element would include the expansion of wetlands and associated habitat through site grading, excavation, and other ground-disturbing activities. There would be both land-based and water-based construction activities. This element would also include a stockpile location, specifically for the North Fiesta Island Wetland Project. The stockpile locations would not include any excavation activities. None of the components or the stockpile location options within this element intersect any known built environmental historical resources, and none were identified during the site survey for the components within this element. As such, the Wetland and Water Quality Improvements Element would not result in a substantial adverse change in the significance of a historical resource, and impacts would be **less than significant**.

Restoration of Shoreline Element

This element would include beach nourishment, stabilization using riprap and berms, and creation of oyster habitat. Excavation and site grading would be required. Most construction activities would be landside, but waterside construction may also be necessary. None of the components within this element intersect any known built environmental historical resources and no new resources were identified during the site survey. As such, the Restoration of Shoreline

Element would not result in a substantial adverse change in the significance of a historical resource, and impacts would be **less than significant**.

Upland Habitat and Preserve Expansion Element

This element would include the establishment and expansion of habitat. Construction activities would include site grading, weed eradication, and the alteration of existing berms. One of the components within this element includes part of the former Mission Bay Landfill, however, the proposed Program proposes the import of soil to support native vegetation communities and to cap the former landfill. The landfill cap would prevent proposed Program activities from encountering buried landfill materials. None of the other components within this element intersect any known built environmental historical resources and none were identified during the site survey for the components within this element. As such, the Upland Habitat and Preserve Expansion Element would not result in a substantial adverse change in the significance of a historical resource, and impacts would be **less than significant**.

Bicycle and Pedestrian Improvements Element

This element would include bicycle and pedestrian improvements to existing trails and sidewalks, and construction of new trails and sidewalks to connect existing paths within the Improvement Zone. None of the components within this element intersect any known built environmental historical resources and none were identified during the site survey. As such, the Bicycle and Pedestrian Improvements Element would not result in a substantial adverse change in the significance of a historical resource, and impacts would be **less than significant**.

Restoration of Seawall Bulkhead Element

The Restoration of the Seawall Bulkhead Element includes the replacement of large sections of the seawall, the extension of the seawall, and the replacement of stairways or the addition of ADA ramps for beach access. Minor excavation would be required to remove existing facilities. Only one known built environment historical resource was identified as intersecting with the Restoration of Seawall Bulkhead Element. The element purposefully includes the alteration of the Mission Beach Seawall (P-37-016522), which was constructed in 1925, 1928, and 1968, making it a structure older than 45 years old.

As discussed in the Seawall Memo, on September 9, 1997, SHPO determined that the seawall is eligible for inclusion in the NRHP, at the level of local significance, under Criteria A and C and did not comment on CRHR and local eligibility. As part of the Seawall Memo Dudek reviewed and synthesized all previous significance arguments for the seawall and recommended that the seawall is eligible for inclusion on the NRHP and CRHR under Criterion A/1 and Criterion C/3 for its association with the early development of Mission Beach (1914–1915), its integral part in the award-winning Mission Beach Subdivision Plan, and its period and method of construction utilizing tongue and groove pilings.

Additionally, the seawall retains integrity to be listed on the NRHP/CRHR under Criterion A/1 and Criterion C/3. For all of the reasons described above, the seawall appears eligible for listing as a historical resource by the City of San Diego Historical Resources Board (HRB) for meeting designation Criteria A, C, and E. The eligibility recommendation includes the 2.4-mile-long seawall from Thomas Avenue to the north and the South Mission Beach jetty to the south. Therefore, the Mission Beach Seawall is considered a historical resource for the purposes of CEQA.

The Restoration of the Seawall Bulkhead Element would include the replacement of two segments of the existing seawall (segments A and B). Segment A is approximately 8,760 feet long, sections of which were constructed in 1925, 1928, and 1986. Segment B is approximately 1,020 feet in length and was constructed in 2000 with a parapet height of 36 inches. Improvements to existing beach access points at various locations along segments A and B would also be provided as either replacement stairways or ADA ramps, and one new vehicular access for City use would be created at Thomas Avenue. In addition, a new 375-foot-long segment, segment C would be constructed from the north end of the existing seawall at Thomas Avenue towards Crystal Pier.

Under the Proposed Program, the majority of the Mission Beach Seawall would be replaced with modern construction consistent with required safety and ADA accessibility codes and would continue to be used for the same purposes prior to Program implementation. The demolition of the seawall in segments A and B and new construction of segment C and ADA ramps would constitute a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. The demolition of the resource would result in a loss of all seven aspects of integrity and render the structure unable to convey its significance under NRHP/CRHR Criteria A/1 and C/3 and City of San Diego Criteria A, C, and E. The design for the new seawall would not adhere to the Standards for Rehabilitation because very few original materials, features, finishes, and construction techniques will be preserved or retained, which is required by the Standards for Rehabilitation. Therefore, the Proposed Program would cause a **potentially significant** impact to a historical resource. Implementation of mitigation measures including Mitigation Measure (MM) CUL-1, which requires the documentation of the Mission Beach Seawall and its setting through the preparation of a Historic American Engineering Record (HAER) "Like" documentation, and MM-CUL-2, which requires the development of interpretation and education materials to be displayed to tell the story and history, and explain the historical significance of the original Mission Beach Seawall. The interpretation and education materials may include historic photographs, maps, and architectural renderings of the Mission Beach Seawall. MM-CUL-3 would require the incorporation of historic design features of the Mission Beach Seawall into the new construction. MM-CUL-1, MM-CUL-2, and MM-CUL-3 also required the Program to retain a qualified historian and/or architectural historian to prepare the interpretative materials prior to construction activities and coordinate with City Heritage Preservation staff during the design phase.

The Mission Beach Seawall will be restored to the condition that is required by the City' of San Diego's historical standards consistent with the San Diego Municipal Code. The alteration of the Mission Beach Seawall cannot be determined to be consistent with the Standards for Rehabilitation and will require a deviation from the City's Historical Resources Regulations. The deviation will require the City to process a Site Development Permit for a Substantial Alteration to a Historical Resource and the Program will be required to make the findings in San Diego Municipal Code Section 126.0505(i). Prior to issuance of the Site Development Permit, the City would demonstrate that the proposed alteration to the Seawall is the minimum deviation from the Historical Resources Regulations required to accommodate the component and that there are no less environmentally damaging alternatives. The design of the component would incorporate historic design features of the historically significant Seawall to make the permit findings, and the quality of design will be at a minimum equal to the current structure. These features should include those called out as significant in the 1998 Mission Beach Boardwalk Project EIR/ Environmental Assessment, such as the pop-out walls which historically featured open balustrades, elevation of solid walls along the Boardwalk, and specific concrete color and finish.

Therefore, the restoration of the Seawall will also be to a condition no less than the quality of restoration previously performed in 1998 from Thomas Street to Pacific Beach Drive. Implementation of MM-CUL-1, MM-CUL 2, and MM-CUL 3 would reduce impacts to the extent feasible but would not reduce the direct impact to a level of less than significant. As such, the impact would remain **significant and unavoidable**.

Issue 2: Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to Section 15064.5?

Wetland and Water Quality Improvements Element

This element would include the expansion of wetlands and associated habitat through site grading, excavation, and other ground-disturbing activities. There would be both land-based and water-based construction activities. This element would also include a stockpile location, specifically for the North Fiesta Island Wetland Project. The stockpile locations would not include any excavation activities. None of the components or stockpile locations within this element intersect any known archaeological resources and no archaeological resources were identified during the site survey for the components within this element. Further, the components within the Wetland and Water Quality Improvements Element would occur in areas that are entirely disturbed given the artificial nature of Fiesta Island and adjacent areas. Given that these are heavily disturbed areas, there is low potential for unknown subsurface archaeological resources. Additionally, as mentioned, the Program would comply with applicable regulations associated with historical resources in the unlikely event that an inadvertent

discovery is made. Therefore, implementation of the element would result in **less-than-significant** impacts on archaeological resources.

Restoration of Shoreline Element

This element would include beach nourishment, stabilization using riprap and berms, and creation of oyster habitat. Excavation and site grading would be required. Most construction activities would be landside, but waterside construction may also be necessary. None of the components within this element intersect any known archaeological resources and no archaeological resources were identified during the site survey. The Crown Point Restoration Project is located adjacent to CA-SDI-011571, which includes artifacts previously identified on the Crown Point Peninsula. However, the Crown Point Restoration Project limits ground disturbance to the shoreline and would be physically separated from the previously identified resource by the Crown Point bluffs. No cultural resources were observed within the Crown Point Restoration Project area. Therefore, the Crown Point Restoration Project would not have a significant impact on CA-SDI-011571. Other components in the element are located in areas that have are considered degraded due to their artificial nature and modification. Therefore, there would be low probability of encountering resources along the shoreline for any of the shoreline restoration components due to shoreline sediments being unstable and unable to support intact resource deposits. Therefore, the components in the Shoreline Restoration Element are unlikely to unearth archaeological resources. Additionally, as mentioned, the Program would comply with applicable regulations associated with archaeological resources in the unlikely event that an inadvertent discovery is made. Therefore, implementation of the element would result in **less-than-significant** impacts on archaeological resources.

Upland Habitat and Preserve Expansion Element

This element would include the establishment and expansion of habitat. Construction activities would include site grading, weed eradication, and the alteration of existing berms. None of the components within this element intersect any known archaeological resources and no archaeological resources were identified during the site survey for the components within this element. Further, most components included in the Upland Habitat Restoration Element would occur on Fiesta Island, which is man-made and entirely disturbed given its artificial nature. Other component areas are also considered disturbed due to attempted landscaping and recreational parks on site. Given that these are heavily disturbed areas, there is low potential for unknown subsurface archaeological resources. The San Diego River Habitat Project is located on a largely undeveloped parcel but is located between roadways on artificial fill. Therefore, there is low potential to encounter previously unidentified subsurface archaeological resources for any of the components in this element. Further, as mentioned, there were no archaeological resources identified during the site survey. As mentioned, the Program would comply with applicable regulations associated with archaeological resources in

the unlikely event that an inadvertent discovery is made. Therefore, implementation of the element would result in **less-than-significant** impacts on archaeological resources.

Bicycle and Pedestrian Improvements Element

This element would include bicycle and pedestrian improvements to existing trails and sidewalks, and construction of new trails and sidewalks to connect existing paths within the Improvement Zone. One component in this element would bisect an archaeological resource (CA-SDI-005017).

The boundary of the Rose Creek Bike Path Project bisects the boundary of CA-SDI-005017, the ethnohistoric Native American village of La Rinconada de Jamo. Previous archaeological testing within the resource boundary has produced significant deposits of cultural midden and materials. However, the resource boundary covers approximately 300 acres and none of these deposits were identified within the Project footprint. The Project area has undergone extensive alteration of the terrain along the east bank of Rose Creek. This has likely displaced any remnants of the resource had any previously existed. Although intact cultural deposits are unlikely, there is still potential for impacts to CA-SDI-005017 to occur during grading and excavation.

The other activities in this element include minor ground disturbance and construction activities in primarily disturbed areas. Due to the existing disturbance and minimal ground disturbance, there is low potential to impact unknown subsurface resources. Further, as mentioned, the Program would comply with applicable regulations associated with archaeological resources in the unlikely event that an inadvertent discovery is made. While this element would occur in highly disturbed areas with existing development, implementation of the element would result in a **potentially significant** impact to archaeological resources due to the potential impacts to the known resources described above.

Restoration of Seawall Bulkhead Element

This element would include the replacement and extension of the existing seawall and improvement of existing beach access locations. Minor excavation would be required to remove existing facilities. While the Mission Beach Seawall is a built environment historical resources as discussed above, the element does not intersect any known archaeological resources, and none were identified during the site survey for the components within this element. However, during the City's Native American consultation efforts in compliance with AB 52, Lisa Cumper, Tribal Historic Preservation Officer for Jamul Indian Village, stated that a natural source of pitch used by the Kumeyaay to adhere projectile points to shafts is located in the area and projectile points have been linked to the area of the seawall. Ms. Cumper recommended cultural monitoring during ground disturbance associated with the Seawall Bulkhead Restoration Project Element. Therefore, implementation of the element would result in **potentially significant** impacts on archaeological resources.

Issue 3: Would the project result in the disturbance of any human remains, including those interred outside of formal cemeteries?

There are no formal cemeteries or known burials in the immediate vicinity of the Improvement Zone. Further, the CRCA did not identify any potential to disturb human remains in the Improvement Zone. In the unlikely event of an inadvertent discovery of human remains during ground-disturbing activities, the Program would be handled in accordance with procedures of the California Public Resources Code (Section 5097.98), California Health and Safety Code (Section 7050.5), and California Government Code Section 27491. These regulations detail specific procedures to follow in the event of a discovery of human remains (i.e., work would be required to halt, and no soil would be exported off-site until a determination could be made via the County Coroner and other authorities as required).

As mentioned above, there are currently no formal cemeteries or known burials in the immediate vicinity of the Improvement Zone. Therefore, impacts to human remains would be **less than significant.**

4.6.5 MITIGATION FRAMEWORK

MM-CUL-1 **Historic American Engineering Record (HAER) "Like" Documentation.** Prior to Program's implementation, the City of San Diego shall initiate and sponsor the documentation of the Mission Beach Seawall and its setting through the preparation of HAER "Like" documentation. This documentation shall include digital photographs, a short-form report, and archiving as outlined below, developed in consultation with the City of San Diego. All work shall be conducted by an architectural historian who meets the 2008 Secretary of the Interior's Professional Qualifications Standards for architectural history and/or history (Qualified Architectural Historian). This mitigation measure is being proposed in compliance with CEQA and does not necessitate approval of this documentation through National Park Service (NPS) or the California Office of Historic Preservation. The HAER "Like" Short Form document shall be limited to the following:

1. Digital Photography: Prior to issuance of any permits or any demolition of the seawall, digital photographic documentation of the Mission Beach Seawall shall be prepared to the National Park Service's 2024 National Register of Historic Places and National Historic Landmarks Program Consolidated and Updated Photograph Policy. The photographer shall be familiar with the recordation of historical resources in accordance with NPS guidelines and digital photography. A minimum of 15 photographs shall be taken, detailing the overall site, select intact portions of the seawall, existing setting, and surrounding viewsheds. Drone photography

and/or videography may also be used to capture aerial perspectives of the seawall in addition to digital photography. All photographs shall include a photo index, and field notes, and be identified and labeled using the NPS Consolidated and Updated Photograph Policy 2024.

2. Short-Form Report: In consultation with the City of San Diego, a Qualified Architectural Historian shall prepare a short-form report in conjunction with the large format photographs. The historic report will be formatted to Historic American Engineering Record Guidelines for Historical Reports and include historical background information, original or copies of architectural or engineering drawings, if available, maps, and historic photographs relevant to the Mission Beach Seawall.
3. Archiving: One copy of the final, archival quality documentation shall be provided to the San Diego History Center. Duplicate archival laser-copies (on acid-free paper) of the report and photographs shall be submitted to the City of San Diego. In summary one (1) full set of survey prints, negatives, and report and one duplicate archival copy of surveys are required. The HAER "Like" Short Format documentation for the Mission Beach Seawall must be submitted to repositories within three months of Program's completion.

MM-CUL-2 **Development of Public Interpretation and Educational Display.** The City of San Diego shall develop and prepare public interpretation and educational materials to document and explain the importance of the Mission Beach Seawall to the City of San Diego's community and planning history. The display shall be designed in consultation with the project design team, a professional graphic designer, and a qualified historian or architectural historian who meets the Secretary of the Interior's Professional Qualifications Standards (Qualified Architectural Historian). Input and review of the content on the display must be completed in conjunction with the City of San Diego's Heritage Preservation staff.

The display shall include the following content:

- A narrative summary of the historical resource's significance, including its association with important events, persons, and/or architectural features.
- Archival photographs and/or drawings of the resource.
- A site map or diagram showing the original location and layout.
- A QR code or link to a digital archive with expanded content, such as oral histories, documents, or additional imagery, if available.

Historical ephemeral materials and exerts from historic contexts from technical reports prepared as part of the proposed Program and maps shall be included. The display should express the Mission Beach Seawall's association with the early development of Mission Beach and its innovative tongue and groove pilings design.

The interpretive and educational display shall be incorporated into the design of the proposed Program for public accessibility at the new seawall site. Specifics for establishing the appropriate medium to display this information shall be done in consultation with the Project proponent. The following performance standards for the display are required:

- The display shall be constructed of durable, weather-resistant materials and be designed to be accessible in accordance with ADA standards.
- The content shall be reviewed and approved by the City of San Diego prior to installation.
- The display shall be installed within three months of Project completion and maintained in good condition for a minimum of 20 years.

MM-CUL-3 **Incorporation of Historic Design Features into New Construction.** During the design phase of the Program's Restoration of the Seawall Bulkhead Element, City of San Diego Heritage Preservation staff will review all construction drawings to ensure the incorporation of the historic design features identified in the 1998 Mission Beach Boardwalk Project EIR/ Environmental Assessment such as the pop-out walls which historically featured open balustrades, elevation of solid walls along the Boardwalk, and specific concrete color and finish. The Mission Beach Seawall will be restored to the condition that is required by the City of San Diego's historical standards consistent with the San Diego Municipal Code. This mitigation is to ensure that the quality of design will be at a minimum equal to the current structure.

The Mission Beach Seawall will be restored to the condition that is required by the City' of San Diego's historical standards consistent with the San Diego Municipal Code. The alteration of the Mission Beach Seawall cannot be determined to be consistent with the Standards for Rehabilitation and will require a deviation from the City's Historical Resources Regulations. The deviation will require the City to process a Site Development Permit for a Substantial Alteration to a Historical Resource and the Program will be required to make the findings in San Diego Municipal Code Section 126.0505(i). Through the Site Development Permit process, the City will need to prove that the proposed alteration to the Seawall is the minimum deviation from the Historical Resources Regulations required to accommodate the component and that

there are no less environmentally damaging alternatives. The design of the component will need to incorporate historic design features of the historically significant Seawall to make the findings and the quality of design will be at a minimum equal to the current structure. These features should include those called out as significant in the 1998 Mission Beach Boardwalk Project EIR/ Environmental Assessment such as the pop-out walls which historically featured open balustrades, elevation of solid walls along the Boardwalk, and specific concrete color and finish.

The following mitigation measure MM-CUL-4 would address the potential impacts of the Program related to inadvertent discovery of archaeological resources or human remains during excavation associated with the construction and maintenance of the Rose Creek Bicycle and Pedestrian Improvements Element and the Seawall Bulkhead Restoration Element. The following mitigation measure MM-CUL-5 would ensure proper cultural resource review of future proposed projects that will be processed under this EIR but were not reviewed in the Cultural Resources Constraints Analysis for the Mission Bay Park Improvements Program (Appendix N).

MM-CUL-4 **Construction Monitoring**. The following shall be implemented to protect unknown archaeological resources and/or grave sites that may be identified during ground-disturbing activities associated with the construction or maintenance of the Rose Creek Bike Path Project Element and the Seawall Bulkhead Restoration Project Element.

I. Prior to Permit Issuance or Bid Opening/Bid Award

A. Entitlements Plan Check

1. Prior to permit issuance or Bid Opening/Bid Award, whichever is applicable, the Environmental Designee (ED) shall verify that the requirements for Archaeological Monitoring and Native American monitoring have been noted on the applicable construction documents through the plan check process.

B. Letters of Qualification have been submitted to ED

1. Prior to Bid Award, the applicant shall submit a letter of verification to ED identifying the Principal Investigator (PI) for the project and the names of all persons involved in the archaeological monitoring program, as defined in the City of San Diego Historical Resources Guidelines (HRG). If applicable, individuals involved in the archaeological monitoring program must have completed the 40-hour HAZWOPER training with certification documentation.

2. ED will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the archaeological monitoring of the project meet the qualifications established in the HRG.
3. Prior to the start of work, the applicant must obtain written approval from ED for any personnel changes associated with the monitoring program.

II. Prior to Start of Construction

A. Verification of Records Search

1. The PI shall provide verification to ED that a site-specific records search (1 mile radius) has been completed. Verification includes, but is not limited to a copy of a confirmation letter from South Coastal Information Center, or, if the search was in-house, a letter of verification from the PI stating that the search was completed.
2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.
3. The PI may submit a detailed letter to ED requesting a reduction to the ¼ mile radius.

B. PI Shall Attend Precon Meetings

1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, Native American consultant/monitor (where Native American resources may be impacted), Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and ED. The qualified Archaeologist and Native American Monitor shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor.
    a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with ED, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.

2. Acknowledgement of Responsibility for Curation (CIP or Other Public Projects)

   The applicant shall submit a letter to ED acknowledging their responsibility for the cost of curation associated with all phases of the archaeological monitoring program.

3. Identify Areas to be Monitored

   Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based on the appropriate construction documents (reduced to 11×17) to MMC identifying the areas to be monitored including the delineation of grading/excavation limits.

   The AME shall be based on the results of a site specific records search as well as information regarding the age of existing pipelines, laterals and associated appurtenances and/or any known soil conditions (native or formation).

   ED shall notify the PI that the AME has been approved.

4. When Monitoring Will Occur

   a. Prior to the start of any work, the PI shall also submit a construction schedule to ED through the RE indicating when and where monitoring will occur.

   b. The PI may submit a detailed letter to ED prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate conditions such as age of existing pipe to be replaced, depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.

5. Approval of AME and Construction Schedule

   After approval of the AME by ED, the PI shall submit to ED written authorization of the AME and Construction Schedule from the CM.

III. During Construction

A. Monitor Shall be Present During Grading/Excavation/Trenching/ Habitat Restoration

1. The Archaeological Monitor shall be present full-time during all soil disturbing and grading/excavation/trenching activities which could result in impacts to archaeological resources as identified on the AME. **The Construction Manager is responsible for notifying the RE, PI, and ED of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the AME.**

2. The Native American consultant/monitor shall determine the extent of their presence during soil disturbing and grading/excavation/trenching activities based on the AME and provide that information to the PI and ED. If prehistoric resources are encountered during the Native American consultant/monitor's absence, work shall stop and the Discovery Notification Process detailed in Section III.B-C and IV.A-D shall commence.

3. The PI may submit a detailed letter to ED during construction requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous grading/trenching activities, presence of fossil formations, or when native soils are encountered that may reduce or increase the potential for resources to be present.

4. The archaeological and Native American consultant/monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be emailed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion)**, and in the case of ANY discoveries. The RE shall forward copies to ED.

B. Discovery Notification Process

1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil disturbing activities, including but not limited to digging, trenching, excavating or grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate.

2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.
3. The PI shall immediately notify ED by phone of the discovery, and shall also submit written documentation to ED within 24 hours by email with photos of the resource in context, if possible.
4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered.

C. Determination of Significance

1. The PI and Native American consultant/monitor, where Native American resources are discovered shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section IV below.
    a. The PI shall immediately notify ED by phone to discuss significance determination and shall also submit a letter to ED indicating whether additional mitigation is required.
    b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) and obtain written approval of the program from ED, CM and RE. ADRP and any mitigation must be approved by ED, RE and/or CM before ground disturbing activities in the area of discovery will be allowed to resume. **Note: If a unique archaeological site is also an historical resource as defined in CEQA Section 15064.5, then the limits on the amount(s) that a project applicant may be required to pay to cover mitigation costs as indicated in CEQA Section 21083.2 shall not apply.**
        i. Note: For pipeline trenching and other linear projects in the public Right-of-Way, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under "D."
    c. If the resource is not significant, the PI shall submit a letter to ED indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that that no further work is required.
        i. Note: For Pipeline Trenching and other linear projects in the public Right-of-Way, if the deposit is limited in size, both in length and depth; the information value is limited and is not associated with any other resource; and there are no unique features/artifacts

associated with the deposit, the discovery should be considered not significant.

ii. Note, for Pipeline Trenching and other linear projects in the public Right-of-Way, if significance cannot be determined, the Final Monitoring Report and Site Record (DPR Form 523A/B) shall identify the discovery as Potentially Significant.

D. Discovery Process for Significant Resources - Pipeline Trenching and other Linear Projects in the Public Right-of-Way

The following procedure constitutes adequate mitigation of a significant discovery encountered during pipeline trenching activities or for other linear project types within the Public Right-of-Way including but not limited to excavation for jacking pits, receiving pits, laterals, and manholes to reduce impacts to below a level of significance:

1. Procedures for documentation, curation and reporting

a. One hundred percent of the artifacts within the trench alignment and width shall be documented in-situ, to include photographic records, plan view of the trench and profiles of side walls, recovered, photographed after cleaning and analyzed and curated. The remainder of the deposit within the limits of excavation (trench walls) shall be left intact.

b. The PI shall prepare a Draft Monitoring Report and submit to ED via the RE as indicated in Section VI-A.

c. The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) the resource(s) encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines. The DPR forms shall be submitted to the South Coastal Information Center for either a Primary Record or SDI Number and included in the Final Monitoring Report.

d. The Final Monitoring Report shall include a recommendation for monitoring of any future work in the vicinity of the resource.

IV. Discovery of Human Remains

If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the

human remains; and the following procedures as set forth in CEQA Section 15064.5(e), the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) shall be undertaken:

A. Notification

1. Archaeological Monitor shall notify the RE or BI as appropriate, MMC, and the PI, if the Monitor is not qualified as a PI. MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS) of the Development Services Department to assist with the discovery notification process.
2. The PI shall notify the Medical Examiner after consultation with the RE, either in person or via telephone.

B. Isolate discovery site

1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner in consultation with the PI concerning the provenience of the remains.
2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenience.
3. If a field examination is not warranted, the Medical Examiner will determine with input from the PI, if the remains are or are most likely to be of Native American origin.

C. If Human Remains **ARE** determined to be Native American

1. The Medical Examiner will notify the Native American Heritage Commission (NAHC) within 24 hours. By law, **ONLY** the Medical Examiner can make this call.
2. NAHC will immediately identify the person or persons determined to be the Most Likely Descendant (MLD) and provide contact information.
3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with CEQA Section 15064.5(e), the California Public Resources and Health & Safety Codes.

4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods.
5. Disposition of Native American Human Remains will be determined between the MLD and the PI, and, if:
    a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being notified by the Commission, OR;
    b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner, THEN
    c. To protect these sites, the landowner shall do one or more of the following:
        (1) Record the site with the NAHC;
        (2) Record an open space or conservation easement; or
        (3) Record a document with the County.
    d. Upon the discovery of multiple Native American human remains during a ground disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and items associated and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c, above.

D. If Human Remains are **NOT** Native American
    1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.
    2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).

3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for internment of the human remains shall be made in consultation with ED, EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of Man.

V. Night and/or Weekend Work

A. If night and/or weekend work is included in the contract

1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the precon meeting.

2. The following procedures shall be followed.

a. No Discoveries

In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit to ED via email by 8AM of the next business day.

b. Discoveries

All discoveries shall be processed and documented using the existing procedures detailed in Sections III - During Construction, and IV – Discovery of Human Remains. Discovery of human remains shall always be treated as a significant discovery.

c. Potentially Significant Discoveries

If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section III - During Construction and IV-Discovery of Human Remains shall be followed.

d. The PI shall immediately contact the RE and ED, or by 8AM of the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of construction

1. The Construction Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.

2. The RE, or BI, as appropriate, shall notify ED immediately.

C. All other procedures described above shall apply, as appropriate.

VI. Post Construction

A. Submittal of Draft Monitoring Report

1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Historical Resources Guidelines (Appendix C/D) which describes the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program (with appropriate graphics) to ED via the RE for review and approval within 90 days following the completion of monitoring. **It should be noted that if the PI is unable to submit the Draft Monitoring Report within the allotted 90-day timeframe as a result of delays with analysis, special study results or other complex issues, a schedule shall be submitted to MMC establishing agreed due dates and the provision for submittal of monthly status reports until this measure can be met.**

    a. For significant archaeological resources encountered during monitoring, the Archaeological Data Recovery Program or Pipeline Trenching Discovery Process shall be included in the Draft Monitoring Report.

    b. Recording Sites with State of California Department of Parks and Recreation

    c. The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines, and submittal of such forms to the South Coastal Information Center with the Final Monitoring Report.

2. ED shall return the Draft Monitoring Report to the PI via the RE for revision or, for preparation of the Final Report.

3. The PI shall submit revised Draft Monitoring Report to ED via the RE for approval.

4. ED shall provide written verification to the PI of the approved report.

5. ED shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Artifacts

1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued
2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.

C. Curation of artifacts: Accession Agreement and Acceptance Verification

1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with ED and the Native American representative, as applicable.
2. When applicable to the situation, the PI shall include written verification from the Native American consultant/monitor indicating that Native American resources were treated in accordance with state law and/or applicable agreements. If the resources were reinterred, verification shall be provided to show what protective measures were taken to ensure no further disturbance occurs in accordance with Section IV – Discovery of Human Remains, Subsection C.
3. The PI shall submit the Accession Agreement and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to ED.
4. The RE or BI, as appropriate shall obtain signature on the Accession Agreement and shall return to PI with copy submitted to ED.
5. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and MMC.

D. Final Monitoring Report(s)

1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to ED (even if negative), within 90 days after notification from ED of the approved report.

2. The RE shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from ED which includes the Acceptance Verification from the curation institution

MM-CUL-5 **Cultural Review of Future Development Projects.** Prior to the issuance of any discretionary permit for a future development projects that were not reviewed in the Cultural Resources Constraints Analysis for the Mission Bay Park Improvements Program (Appendix N) and that could directly and/or indirectly affect a cultural resource (i.e., archaeological and Tribal Cultural Resources), the City shall require the following steps be taken to determine (1) the potential presence and/or absence of cultural resources, and (2) the appropriate mitigation for any significant resources that may be impacted. For the purposes of CEQA review, a cultural resource is defined in CEQA Guidelines Section 15064.5. Tribal Cultural Resources are defined in PRC Section 21074.

I. Initial Determination

The City's Environmental Designee shall determine the potential presence and/or absence of cultural resources at the project site by reviewing site photographs and existing historic information (e.g., Archaeological Sensitivity Maps, the Archaeological Map Book, the California Historical Resources Inventory System, and the City's "Historical Inventory of Important Architects, Structures, and People in San Diego") and may conduct a site visit. A review of the cultural resources records search data (see Appendix N) shall be done at the initial planning stage of a project to ensure that cultural resources are avoided and/or impacts are minimized to the extent feasible in accordance with the City's Historical Resources Guidelines. The sensitivity levels described below shall guide the appropriate steps necessary to address the potential resources. Sensitivity ratings may be adjusted based on the amount of disturbance that has occurred, which may have previously impacted cultural resources, as well as new data available to the City.

A. High Sensitivity: indicates locations where significant cultural resources have been documented or would have the potential to be identified. High sensitivity resources include village and habitation sites and areas near fresh water sources. These resources may range from moderately complex to highly complex, with more defined living areas or specialized work space areas, and a large breadth of features and artifact assemblages. The potential for identification of additional resources in such areas would be high.

B. Moderate Sensitivity: Indicates that some cultural resources have been recorded within the area or the area was developed before 1984 when CEQA review may not have been applied. Moderate sensitivity resources consist of diversity or density of feature and artifact types (e.g., a moderately dense lithic scatter).

C. Low Sensitivity: Indicates areas where there is a high level of disturbance or development, and few or no previously recorded cultural resources are present based on records search results and due to the timing of development of the project site occurring after 1984 when CEQA would have been applied. Within these areas, the potential for additional resources to be identified would be low.

I. Phase I

Based on the results of the initial determination, if there is any evidence that the project area contains archaeological and/or Tribal Cultural Resources, a site-specific records search and/or survey may be required and shall be determined on a case-by-case basis by the City's Environmental Designee. If a cultural resources study is required, it shall be prepared consistent with the City's Historical Resources Guidelines. All individuals conducting any phase of the cultural resources program shall meet the professional qualifications in accordance with the City's Historical Resources Guidelines. The cultural resources study shall include the background research conducted as part of the initial determination. This includes a record search at the SCIC at San Diego State University. A review of the Sacred Lands File maintained by the NAHC shall also be conducted at this time. The cultural resources study shall include a field survey and/or an evaluation of significance, as applicable if cultural resources are identified, based on the City's Historical Resources Guidelines. Native American participation shall be required for all field work.

II. Phase II

Once a cultural resource (as defined in the PRC) has been identified, a significance determination shall be made. If a project were to impact areas identified as low sensitivity, it is assumed that any significant cultural resources no longer hold integrity or are not present. If a project impacts these areas, no additional mitigation measures shall be required.

If a project were to impact areas identified as moderate sensitivity, a site-specific records search and/or survey may be required on a case-by-case basis. If cultural resources are identified in the records search and/or survey, a significance evaluation for the identified cultural resources shall be required. If no significant resources are found and site conditions are such that there is no potential for further discoveries, then no further action shall be required. Resources found to be nonsignificant as a result of a survey and/or assessment shall require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation site forms and inclusion of the results in the survey and/or assessment report. If no significant resources are found, but results of the initial evaluation indicate there is still a potential for resources to be present in portions of the property, then mitigation monitoring shall be required. If the resource has not been evaluated for significance, a testing plan shall be required. If the resource is determined to be significant, a testing plan, data recovery plan, and mitigation monitoring shall be required.

If a project were to impact areas identified as high sensitivity, a survey and testing program may be required by the qualified archaeologist to further define resource boundaries subsurface presence or absence and determine the level of significance. A thorough discussion of testing methodologies including surface and subsurface investigations can be found in the City's Historical Resources Guidelines. The results from the testing program shall be evaluated against the Significance Thresholds found in the City's Historical Resources Guidelines. If significant cultural resources are identified within the area of potential effects, the site may be eligible for local designation.

Preferred mitigation for direct and/or indirect impacts to cultural resources is to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm shall be taken. Mitigation measures such as, but not limited to, a Research Design and Archaeological Data Recovery Program (ADRP), construction monitoring, site designation, capping, granting of deeds, designation of open space, and avoidance and/or preservation shall be required and shall be determined by the City's Environmental Designee on a case-by-case basis.

III. Phase III

Archaeological Data Recovery Program

If a cultural resource is found to be significant and preservation is not an option, a Research Design and ARDP shall be required, which includes a Collections Management Plan for review and approval by the City's Environmental Designee. The ADRP shall be based on a written research design and is subject to the provisions as outlined in PRC Section 21083.2. The ADRP shall be reviewed and approved by the City's Environmental Designee prior to distribution of a draft CEQA document.

Local Designation of Resources

The final cultural resource evaluation report shall be submitted to Historical Resources Board (HRB) staff for designation. The final cultural resource evaluation report and supporting documentation will be used by HRB staff in consultation with qualified City staff to ensure that adequate information is available to demonstrate eligibility for designation under the applicable criteria.

Monitoring and Archaeological Resource Reports

Archaeological monitoring may be required during building demolition and/or construction grading when significant cultural resources are known or suspected to be present on a site but cannot be recovered prior to grading due to obstructions such as, but not limited to, existing development, dense vegetation, or if a data recovery did not reduce the impact to the resource. Monitoring shall be documented in a consultant site visit record.

Native American participation shall be required for all subsurface investigations, including geotechnical testing and other ground disturbing activities whenever a Tribal Cultural Resource or any archaeological site. In the event that human remains are encountered during data recovery and/or a monitoring program, the provisions of PRC Section 5097 shall be followed. In the event that human remains are discovered during project grading, work shall halt in that area and the procedures set forth in the PRC (Section 5097.98) and State Health and Safety Code (Section 7050.5), and in the federal, state, and local regulations described above shall be undertaken. These provisions shall be outlined in the Mitigation Monitoring and Reporting Program included

in a subsequent project-specific environmental document. The Most Likely Descendent shall be consulted during the preparation of the written report, at which time they may express concerns about the treatment of sensitive resources.

Archaeological Resource Reports shall be prepared by qualified professionals as determined by the criteria set forth in Appendix B of the City's Historical Resources Guidelines. In the event that a cultural resource deposit is encountered during construction monitoring, a Collections Management Plan shall be required in accordance with the project's Mitigation Monitoring and Reporting Program. The disposition of human remains and burial related artifacts that cannot be avoided or are inadvertently discovered is governed by State (i.e., AB 2641 [Coto] and Native American Graves Protection and Repatriation Act (NAGPRA) of 2001 [Health and Safety Code 8010-8011]) and federal (i.e., federal NAGPRA United States Code 3001-3013]) law, and must be treated in a dignified and culturally appropriate manner with respect for the deceased individual(s) and their descendants. Any human bones and associated grave goods of Native American origin shall be turned over to the appropriate Native American group for repatriation, as identified by the NAHC.

Arrangements for long-term curation must be established between the applicant/property owner and the consultant prior to the initiation of the field reconnaissance, and must be included in the archaeological survey, testing and/or data recovery report submitted to the City for review and approval. Curation must be accomplished in accordance with the California State Historic Resources Commission's Guidelines for the Curation of Archaeological Collection (dated May 7, 1993) and, if federal funding is involved, 36 CFR 60. Additional information regarding curation is provided in Section II of the Historical Resources Guidelines.

4.6.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Issue 1: Built Environment Historic Resources

As analyzed above, Program implementation in compliance with the laws described above, and implementation of the City's cultural mitigation measures **MM-CUL-1 and/or MM-CUL 2 and MM-CUL-3** is required due to the significant impacts to the Mission Beach Seawall although mitigation is required the impact would remain **significant and unavoidable**.

Issue 2: Archaeological Resources

Impact would be **less than significant**, and no mitigation would be required for each element, except for any activities near sensitive archaeological resources including the Bicycle and Pedestrian Improvements Element.

Monitoring during initial ground-disturbing activities associated with the construction or maintenance of the Rose Creek Bike Path Project would ensure proper treatment of archaeological resources should any be identified, although intact archaeological deposits are unlikely. With the implementation of monitoring (MM-CUL-4) and future development projects review (MM-CUL-5), potential impacts of the Bicycle and Pedestrian Improvements Element on archaeological resources would be reduced to **less than significant with mitigation.**

Issue 3: Disturbance of Human Remains

Impacts would be **less than significant**, and no mitigation would be required for each element.

4.7 HEALTH AND SAFETY

This section analyzes potential impacts related to health and safety that could result from the implementation of the proposed Mission Bay Park Improvements Program (Program). The information in this section is based on the Geotechnical and Geologic Hazard Evaluation, prepared by Bodhi Group (Appendix P to this Environmental Impact Report [EIR]) and a Hazardous Substance Abatement Plan by The Bodhi Group (Appendix Q), both of which were prepared for the proposed Program. Information is also based, in part, on the Environmental Site Assessment of the Mission Bay Landfill prepared by SCS Engineers in 2006.

4.7.1 EXISTING CONDITIONS

The Mission Bay Park Improvement Zone (Improvement Zone) is composed of approximately 4,235 acres, encompasses Mission Bay Park, along with additional areas in all directions. The Improvement Zone within Mission Bay Park is developed with passive and active recreational and open space aquatic uses. The specific extent of the Improvement Zone is shown in Figure 3-1, Mission Bay Park Improvement Zone, in Chapter 3, Project Description. No existing activities that occur in the Improvement Zone are associated with the generation or production of hazardous materials.

Site History

The following discussion summarizes site history relevant to the Improvement Zone and health and safety. Refer to Appendix Q for a detailed description of the historical uses within Mission Bay.

Mission Bay was developed from the 1940s through the 1960s. In 1852, the United States Army constructed the first dike along the south side of the river to prevent it from shifting back to San Diego Bay and created an estuary outlet for the river drainage (which failed soon after construction was completed). During the late 1800s, recreational development took place, but the facilities were destroyed by flooding years later. In the late 1940s, dredging and filling operations began converting the marsh into Mission Bay Park, which is almost entirely human constructed. Approximately one-half of the park was once tidelands (City of San Diego 2018b). Today, levees are present on the north and south sides of the San Diego River and it no longer drains to Mission Bay (SCS Engineers 2006) (see Figure 3-3, Mission Bay Park Improvements Program Overview and Elements Locations, in Chapter 3).

A portion of the Improvement Zone is located where Mission Bay Landfill once operated. The municipal landfill occupied 113 acres along the southeastern edge of Mission Bay, near the former mouth of the San Diego River. Initial operations at the landfill began in 1952, following the completion of the San Diego River flood control channel. The landfill was operated by the City of San Diego from 1952 to 1959 and later received hydraulic fill from large- and small-scale dredging of Mission Bay from

1959 to 1969, and additional fill in the 1980s. Currently, the landfill is capped with 1.5 to 19.5 feet of soil (an average of 9.3 feet), with 31% of the area covered by asphalt and concrete.

The waste deposited at the Mission Bay Landfill was primarily municipal refuse; however, portions of the waste were also reported to have originated from local industrial firm and from military operations. Several studies have previously been conducted to determine if the Landfill contains any harmful hazardous materials to the public and local wildlife. In 2006, SCS Engineers conducted an Environmental Site Assessment and baseline health brisk assessment for the Mission Bay Landfill. The health risk assessment evaluated health risks associated with non-cancer risk, concern risk, lead exposure, and hazard gases. Soil sampling conducted by SCS Engineers found concentrations of mercury, methane, hydrogen sulfide, and arsenic, all of which were recorded to pose a risk to construction workers. SCS made several recommendations for the Landfill area including additional soil cover and expansion of the existing monitoring activities for the Landfill (SCS Engineers 2006).

In the 1930s through 1953, prior to the Mission Bay Landfill, a residential community, which included an airfield (Pike/Peik Airport) was located within the Improvement Zone and within what would later become a portion of the landfill's footprint. Part of the airfield extended onto what is now Fiesta Island. Temporary military barracks were located at the airfield during World War II in the 1940s. The airfield reportedly had an approximately 2,600-foot oiled runway and three hangars and "offered storage, repairs, charter, and fuel" (Freeman 2025). A maintenance hangar was also located at the site. Review of historical photographs of the airfield dated 1946 and 1952 show bulk aboveground storage, possibly of fuel (Appendix Q).

Hazardous Materials and Conditions

Government Code Section 65962.5 requires the California Department of Toxic Substances Control (DTSC), the State Department of Health Services, the State Water Resources Control Board (SWRCB), and the California Department of Resources Recycling and Recovery to compile and annually update lists of hazardous waste sites and lands designated as hazardous waste sites throughout the state. The provisions in Government Code Section 65962.5 are commonly referred to as the "Cortese List." Resources included on the Cortese List include the following:

- List of hazardous waste and substances sites from the DTSC EnviroStor database
- List of open, active leaking underground storage tank (LUST) sites from the SWRCB GeoTracker database
- List of solid waste disposal sites identified by SWRCB with waste constituents above hazardous waste levels outside the waste management unit

- List of active cease-and-desist orders and cleanup and abatement orders from SWRCB
- List of hazardous waste facilities subject to corrective action identified by DTSC

The Hazardous Substance Abatement Plan includes a third-party records search and review of Cortese List resources including GeoTracker, EnviroStor, and CalRecycle (Appendix Q). San Diego County Department of Environmental Health and Quality (DEHQ) online files were also reviewed. The databases and lists were reviewed for information regarding hazardous materials or hazardous wastes to determine what, if any, potential contamination exists within the boundaries of the Improvement Zone and the immediate surrounding area.

The search of the various databases resulted in the identification of approximately 2,402 records of hazardous materials storage, transport, use, disposal, or releases (Appendix Q). The records included multiple entries for the same facility or address. The majority of release sites identified through the search were related to fuel service stations, automobile repair shops, waste disposal facilities, and an airport. Of the 2,402 records, 10 sites are of note and provide context to the existing conditions within and adjacent to the Improvement Zone (Appendix Q). These sites conditions are briefly described below and are shown on Figure 4.7-1, Hazardous Sites. Refer to Appendix Q for a detailed description of all identified sites and conditions.

Historical Gas Station (2662 Garnet Avenue)

This site is located on the north side of Garnet Avenue, east adjacent to the Rose Creek Bike Path area (see Figure 4.7-1). This facility operated as a gas station from approximately the 1950s to the 1980s. The primary contaminants of concern in soil from unauthorized releases of petroleum are potentially total petroleum hydrocarbons, volatile organic compounds (VOCs), and polycyclic aromatic hydrocarbons (PAHs).

Dry Clean Empire (2710 Garnet Avenue)

This site is located 100 feet east of the Improvement Zone, adjacent to the proposed Rose Creek Bike Path. This property is listed on unauthorized release databases with a case-closed status. Tetrachloroethylene (PCE) and dichloroethylene (DCE) were the listed the potential contaminants of concern.

Ocean Beach Mobil/Ocean Beach Gas (2305 Sunset Cliffs Boulevard)

This site is located on the eastern corner of Sunset Cliffs Boulevard and Point Loma Boulevard, approximately 100 feet southeast of the Improvement Zone and the proposed Robb Field/Gateway Connectivity Path. The site is associated with several closed unauthorized release cases and is listed as a historical and active Underground Storage Tank location. In 2007, a Corrective Action Plan for the

site recommended regulatory site closure with the anticipation that the chemical contamination of benzene and methyl tert-butyl ethylene would be reduced through natural attenuation. As such, it is expected that the residual concentrations of benzene and methyl tert-butyl ethylene may be lower than those detected during the site's most recent testing in 2005 (Appendix Q).

Radar Station L-6 MIS ("Mission Beach")

This site is listed as a Formerly Used Defense Site, specifically used for radar operations and as a campsite. The site located within the Improvement Zone, immediately west of the proposed Sea World Drive/San Diego River Site No. 4d – South Shores East Area Element (DTSC 2024). The contaminant of concern or the potential media affected for this site is not recorded by DTSC and no environmental restoration sites were reported or planned for this location (Appendix Q).

Fiesta Island Sludge Drying (1000 Fiesta Island Road)

This site is located within the Improvement Zone at the southwest portion of Fiesta Island (see Figure 4.7-1). According to a DEHQ Case Closure Letter dated March 2000, this site was historically used for drying domestic sludge from the Point Loma Treatment facility. The underlying soils were reportedly impacted with metals and pesticides from drying of domestic sewage sludge. The closure letter states that after operations ceased, "remaining sludge was disposed off-site and the area was capped with 5 to 7 feet of clean imported soil." After cleanup, the total concentrations of metals in the underlying soils were reportedly within acceptable regulatory limits (Appendix Q).

Former Pike/Peik Airfield

This site overlaps the southeast corner of the proposed Improvement Zone and extends onto the southeast portion of Fiesta Island (see Figure 4.7-1). This site previously functioned as an airport, which included a 2,600-foot oiled runway and three hangars. The areas of the former airport and runway were covered with dredged fill material in the mid to late 1950s. Constituents of concern associated with the former oiled runway may include polychlorinated biphenyls (PCBs), petroleum hydrocarbons, total petroleum hydrocarbons, VOCs, PAHs, heavy metals, and other organic and inorganic chemicals (Appendix Q).

Sea World (500 Sea World Drive)

This site is located at the Sea World property adjacent to the Improvement Zone. The site is associated with a closed unauthorized release case that was closed as of 1987. In addition, records indicate that six monitoring wells were abandoned in January 2011. Additional information regarding the impacted media was not available for review. The site was also listed on the California Hazardous Incident Reporting System for various petroleum releases from sinking and leaking vessels in the Sea World

Marina to surface waters of Mission Bay, and from a hydraulic oil filter that fell off a truck into a parking lot. The petroleum releases were de minimis quantities and were reported to be contained and soaked up with absorbents (Appendix Q).

Former Sewage Disposal Ponds (Old Sea World Drive)

This site is located within the Improvement Zone, specifically located at the proposed Sea World Drive/ San Diego River Site No. 1a. This site was a sewage disposal pond from approximately 1953 to 1985. The type of waste disposed into the ponds, the responsible party, and/or the method of closure has not been identified. However, it is assumed that the waste was domestic sewage and therefore the primary chemicals of concern in soil may include metals, VOCs, PFAS, and PAHs. There is also the potential for exposure by inhalation of vapor phase VOCs (Appendix Q).

Former Mission Bay Landfill

As previously discussed, this area within the Improvement Zone operated as a municipal landfill from 1952 to 1959; received hydraulic fill from dredging of Mission Bay from 1959 to 1969, and additional fill around 1980. The former landfill is regulated by the City of San Diego Solid Waste Local Enforcement Agency and the Regional Water Quality Control Board (RWQCB). In accordance with RWQCB Waste Discharge Requirements Order No. R9-2012-0001 and Monitoring and Reporting Program Order No. R9-2012-0002, groundwater and surface water sampling is performed annually at the site. The 2024 annual monitoring report for the site indicated that the results of the water quality analyses were consistent with historical results and that no changes to the groundwater monitoring system were made. Further, the Mission Bay Landfill site is regularly inspected by the City of San Diego. The most recent inspection was conducted in January 2025 along Sea World Drive and Old Sea World Drive; no violations or areas of concern were reported (CalRecycle 2025).

The SWRCB lists chlorinated hydrocarbons and other petroleum as the contaminant of concern and groundwater (other than drinking water) as the potential media of concern (SWRCB 2024). Additionally, it is noted that some Title 22 metals and VOCs have been observed in monitoring wells at the site.

Emergency Response/Evacuation

The City is a participating jurisdiction in the San Diego County Multi-Jurisdictional Hazard Mitigation Plan (MHMP), a County-wide plan to identify risks and minimize damage from natural and man-made disasters (County of San Diego 2023a; City of San Diego 2023). The primary goals of the MHMP include efforts to promote and provide compliance with applicable regulatory requirements (including through the promulgation/enhancement of local requirements), increase public awareness and understanding of hazard-related issues, and foster inter-jurisdictional coordination. San Diego's

updated Multi-Hazard Functional Plan and modernized Emergency Operations Center identify resources available for emergency responses related to earthquakes, fires, major rail and roadway accidents, flooding, hazardous materials incidents, terrorism, and civil disturbances.

The San Diego Office of Emergency Services oversees the City's disaster preparedness, emergency management, and recovery/mitigation programs. The primary focus of this effort is to ensure comprehensive emergency preparedness, training, response, recovery, and mitigation services for disaster-related effects. The Office of Emergency Services also maintains the City's Emergency Operations Center and an alternate Emergency Operations Center in a ready-to-activate status, ensures that assigned staff are fully trained and capable of carrying out their responsibilities during activations, and manages the Emergency Operations Center during responses to multidepartment and City-wide emergencies to support incident response activities and maintain City-wide response capabilities (City of San Diego 2023).

Additionally, the City is a participating agency in Unified San Diego County Emergency Services Emergency Operations Plan (EOP), which addresses emergency issues including evacuation. Annex Q (Evacuation) of the EOP notes that primary evacuation routes consist of major interstates, highways and prime arterials within San Diego County. The closest primary evacuation route in the vicinity of the Program is Interstate (I)-5, located immediately to the east of the Improvement Zone and I-8, located immediately south of the Improvement Zone (County of San Diego 2023b).

Airport Hazards

The ALUCP for the San Diego International Airport maps the Improvement Zone within Airport Influence Areas – Review Area 1 and Review Area 2. Within Review Area 1, proposed land use plans and regulations always require ALUC review. ALUC review is also required for land use plans and regulations within Review Area 2. The proposed Program does not include residential development and is therefore not required to undergo review by the FAA for obstruction evaluation. Further, the Improvement Zone is located outside the Safety Zone boundaries of San Diego International Airport (San Diego County Regional Airport Authority 2025).

Wildfire Hazard

The California Department of Forestry and Fire Protection (CAL FIRE) Fire and Resource Assessment Program database includes map data documenting areas of significant fire hazards in the state. These maps categorize geographic areas of the state into different Fire Hazard Severity Zones (FHSZs), ranging from moderate to very high. CAL FIRE uses FHSZs to classify anticipated fire-related hazards for the entire state and includes classifications for State Responsibility Areas (SRA), Local Responsibility Areas (LRA), and Federal Responsibility Areas. Fire hazard severity classifications take into account vegetation, topography, weather, crown fire production, and ember production and

movement. As shown in Figure 4.7-2, CAL FIRE FHSZs, the Improvement Zone is within a LRA and classified as non-Very High Fire Hazard Severity Zone (CAL FIRE 2024). The nearest Very High FHSZs are located approximately 250 feet east and 720 feet north of the Improvement Zone within a LRA (CAL FIRE 2024). The nearest SRA is located over 12 miles north of the Improvement Zone. However, the City has its own FHSZ maps separate from CAL FIRE, which shows portions of the Improvement Zone to be in a Very High Fire Hazard Severity Zone, including Fiesta Island areas near Tecolote Creek, and adjacent development (see Figure 4.7-3, City of San Diego FHSZs). Similarly, the city's mapping shows the areas to the east of the Improvement Zone to be in a Very High Fire Hazard Severity Zone, including University of San Diego and adjacent development.

Schools

The Improvement Zone is served by the San Diego Unified School District. The San Diego Unified School District includes more than 226 educational facilities (including 117 elementary schools, 24 middle schools, 22 high schools, 49 charter schools, and 14 atypical/alternative schools) and serves over 121,000 students (SDUSD 2024). There are several schools located within 1 mile of the Improvement Zone. Mission Bay Senior High School is the nearest school, located adjacent to the Improvement Zone near the connection of Rose Creek with Mission Bay (see Figure 4.7-1, which displays schools located near the Improvement Zone). Crown Point Elementary School is located approximately 0.30 miles northeast of Sail Bay. Similarly, Correia Middle School is located approximately 0.35 miles southeast of the southernmost point of the Improvement Zone. There are no schools located within a 0.25-mile radius of the previous Mission Bay Landfill location within the Improvement Zone. The nearest school to this portion of the Improvement Zone is Dewey Elementary School, located approximately 0.80 miles south.

4.7.2 REGULATORY SETTING

Federal Regulations

Comprehensive Environmental Response, Compensation, and Liability Act and Superfund Amendments and Reauthorization Act

Congress enacted the Comprehensive Environmental Response, Compensation, and Liability Act, commonly known as Superfund, on December 11, 1980. The Comprehensive Environmental Response, Compensation, and Liability Act established prohibitions and requirements concerning closed and abandoned hazardous waste sites; provided for liability of persons responsible for releases of hazardous waste at these sites; and established a trust fund to provide for cleanup when no responsible party could be identified. The Superfund Amendments and Reauthorization Act (SARA) amended the Comprehensive Environmental Response, Compensation, and Liability Act on October 17, 1986. SARA stressed the importance of permanent remedies and innovative treatment

technologies in cleaning up hazardous waste sites; required Superfund actions to consider the standards and requirements found in other state and federal environmental laws and regulations; provided new enforcement authorities and settlement tools; increased state involvement in every phase of the Superfund program; increased the focus on human health problems posed by hazardous waste sites; encouraged greater citizen participation in making decisions on how sites should be cleaned up; and increased the size of the trust fund to $8.5 billion.

Emergency Planning Community Right-to-Know Act

The Emergency Planning Community Right-to-Know Act, also known as SARA Title III, was enacted in October 1986. This law requires any infrastructure at the state and local levels to plan for chemical emergencies. Reported information is then made publicly available so that interested parties may become informed about potentially dangerous chemicals in their community. SARA Title III Sections 301 through 312 are administered by EPA's Office of Emergency Management. In California, SARA Title III is implemented through the California Accidental Release Prevention (CalARP) program.

Federal Response Plan

The Federal Response Plan of 1999 is a signed agreement among 27 federal departments and agencies, including the American Red Cross, that (1) provides the mechanism for coordinating delivery of federal assistance and resources to augment efforts of state and local governments overwhelmed by a major disaster or emergency; (2) supports implementation of the Robert T. Stafford Disaster Relief and Emergency Act (Stafford Act), as well as individual agency statutory authorities; and (3) supplements other federal emergency operations plans developed to address specific hazards. The Federal Response Plan is implemented in anticipation of a significant event likely to result in a need for federal assistance or in response to an actual event requiring federal assistance under a presidential declaration of a major disaster or emergency.

Hazardous Materials Transportation Act

The U.S. Department of Transportation regulates hazardous materials transportation under Title 49 of the Code of Federal Regulations. The California Highway Patrol and the California Department of Transportation are the state agencies with primary responsibility for enforcing federal and state regulations and responding to hazardous materials transportation emergencies. These agencies also govern permitting for hazardous materials transportation. Title 49 of the Code of Federal Regulations reflects laws passed by Congress as of January 2, 2006.

International Fire Code

The International Fire Code (IFC), created by the International Code Council, is the primary means for authorizing and enforcing procedures and mechanisms to ensure the safe handling and storage of any substance that may pose a threat to public health and safety. The IFC regulates the use, handling, and storage requirements for hazardous materials at fixed facilities. The IFC and the International Building Code use a hazard classification system to determine what measures are required to protect fire and life safety. These measures may include construction standards, separation from project site lines, and specialized equipment. To ensure that these safety measures are met, the IFC employs a permit system based on hazard classification. The IFC is updated every 3 years.

National Emissions Standards for Hazardous Air Pollutants Program

Under federal law, 188 substances are listed as hazardous air pollutants. Major sources of specific hazardous air pollutants are subject to the requirements of the EPA's National Emissions Standards for Hazardous Air Pollutants program. The EPA establishes regulatory schemes for specific source categories and requires implementation of maximum achievable control technologies for major sources of hazardous air pollutants in each source category. State law has established the framework for California's Toxic Air Contaminant Identification and Control Program, which is generally more stringent than the federal program, and is aimed at hazardous air pollutants that are a problem in California. The state has formally identified more than 200 substances as toxic air contaminants and is adopting appropriate control measures for each. Once adopted at the state level, each local air district will be required to adopt a measure that is equally or more stringent.

Occupational Safety and Health Act

Congress passed the Occupational Safety and Health Act to ensure worker and workplace safety. Its goal was to make sure employers provide their workers with a place of employment free from recognized hazards to safety and health, such as exposure to toxic chemicals, excessive noise levels, mechanical dangers, heat or cold stress, or unsanitary conditions. In order to establish standards for workplace health and safety, the Occupational Safety and Health Act also created the National Institute for Occupational Safety and Health as the research institution for the Occupational Safety and Health Administration (OSHA). OSHA is a division of the U.S. Department of Labor that oversees the administration of the Occupational Safety and Health Act and enforces standards in all 50 states. Because California has an approved state plan, only California Occupational Safety and Health Administration (Cal/OSHA) standards apply to the element sites.

Renovating, Repair, and Painting Rule

In 2008, EPA issued the Renovation, Repair, and Painting Rule. This rule requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in pre-1978 homes, childcare facilities, and schools be certified by EPA, and that they use certified renovators who are trained by EPA-approved training providers to follow lead-safe work practices. Individuals can become certified renovators by taking an 8-hour training course from an EPA-approved training provider. Contractors must use lead-safe work practices and follow these three procedures: (1) contain the work area, (2) minimize dust, and (3) clean up thoroughly.

Resource Conservation and Recovery Act

Federal hazardous waste laws are generally promulgated under the Resource Conservation and Recovery Act (RCRA), as amended by the Hazardous and Solid Waste Amendments of 1984. These laws provide for the "cradle to grave" regulation of hazardous wastes. Any business, institution, or other entity that generates hazardous waste is required to identify and track its hazardous waste from the point of generation until it is recycled, reused, or disposed of. The DTSC is responsible for implementing the RCRA program as well as California's own hazardous waste laws, which are collectively known as the Hazardous Waste Control Law. Under the Certified Unified Program Agency program, the California Environmental Protection Agency (CalEPA) has in turn delegated enforcement authority to DEHQ for regulating hazardous waste producers or generators.

Robert T. Stafford Disaster Relief and Emergency Assistance Act

Code of Federal Regulations Sections 206.31–206.48 provide the statutory framework for a presidential declaration of an emergency or a declaration of a major disaster. Such declarations open the way for a wide range of federal resources to be made available to assist in dealing with an emergency or major disaster. The Stafford Act structure for the declaration process reflects the fact that federal resources under this act supplement state and local resources for disaster relief and recovery. Except in the case of an emergency involving a subject area that is exclusively or preeminently in the federal purview, the governor of an affected state, or acting governor if the governor is not available, must request such a declaration by the president.

Risk Assessment and Regional Screening Levels

EPA and DTSC use risk assessments to characterize the nature and magnitude of health risks to humans and ecological receptors from chemical contaminants and other stressors that may be present in the environment. In general terms, risk depends on the following three factors: how much of a chemical is present in an environmental medium (air, soil, or water); how much contact (exposure) a person or ecological receptor has with the contaminated environmental medium; and the inherent

toxicity of the chemical. EPA developed regional screening levels (RSLs) that provide a unified set of screening level/preliminary remediation goals for all EPA regions for screening chemical contaminants at Superfund sites. The RSLs replaced the preliminary remediation goals in 2008. The RSLs are calculated using the latest toxicity values, default exposure assumptions, and physical and chemical properties. The EPA considers RSLs to be protective for humans (including sensitive groups) over a lifetime. Under most circumstances, the presence of a chemical in soil, soil gas, or indoor air at concentrations below the corresponding RSLs can be assumed to not pose a significant health risk to people who may live (residential RSLs) or work (commercial/industrial RSLs) at the site. The EPA RSL tables were most recently updated in November 2018.

The DTSC Human and Ecological Risk Office (HERO) incorporated the EPA RSLs into the HERO human health risk assessment. The HERO review of the EPA RSLs determined that the revised RSLs included some levels that were substantially higher, and therefore less protective, than the previous preliminary remediation goals. HERO therefore created Human Health Risk Assessment Note 3, which incorporates HERO recommendations and DTSC-modified screening levels based on review of the EPA RSLs. The DTSC-modified screening levels should be used in conjunction with the EPA RSLs to evaluate chemical concentrations in environmental media at California sites and facilities. The HERO Human Health Risk Assessment Note 3 was most recently updated in April 2019.

State Regulations

California Emergency Services Act

The California Emergency Services Act was adopted to establish the state's role and responsibilities during human-caused or natural emergencies that result in conditions of disaster and/or extreme peril to life, property, or the resources of the state. The California Emergency Services Act is intended to protect health and safety by preserving the lives and property of the people of the state. The Office of Emergency Services coordinates the responses of other agencies, including EPA, California Highway Patrol, the RWQCBs, air quality management districts, and county disaster response offices.

Emergency Response to Hazardous Materials Incidents

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government, and private agencies. The emergency response plan is administered by the California Emergency Management Agency and includes response to hazardous materials incidents. The California Emergency Management Agency coordinates the response of other agencies, including CalEPA, California Highway Patrol, California Department of Fish and Wildlife, the RWQCBs, San Diego Air Pollution Control District, SDFRD, and the DEHQ Hazardous Incident Response Team.

Hazardous Waste and Substances Sites List

The Hazardous Waste and Substances Sites List (Cortese List) is a planning document used by the state, local agencies, and developers to comply with California Environmental Quality Act (CEQA) requirements by providing information about the location of hazardous materials release sites. Government Code Section 65962.5(a) requires CalEPA to develop an updated Cortese List annually, at minimum. DTSC is responsible for a portion of the information contained in the Cortese List. Other state and local government agencies are required to provide additional hazardous materials release information for the Cortese List.

Hazardous Materials Release Response Plans and Inventory

Two programs found in California Health and Safety Code Chapter 6.95 are directly applicable to the CEQA issue of risk due to hazardous substances release: the Hazardous Materials Business Plan program and the CalARP Program. In the San Diego region, the San Diego County DEHQ is responsible for implementing the Hazardous Materials Business Plan program and the CalARP Program, which provide threshold quantities for regulated hazardous substances. When the indicated quantities are exceeded, a hazardous materials business plan or risk management plan is required pursuant to the regulation. Congress requires EPA Region 9 to make risk management plan information available to the public through the EPA's Envirofacts data warehouse. Envirofacts is considered the single warehouse of EPA environmental data.

Senate Bill 1889 – Accidental Release Prevention Law/CalARP Program

Senate Bill 1889 required California to implement a new federally mandated program governing the accidental airborne release of chemicals promulgated under Section 112 of the Clean Air Act. Effective January 1, 1997, the Accidental Release Prevention Law/CalARP Program replaced the previous California Risk Management and Prevention Program and incorporated the mandatory federal requirements. The CalARP Program addresses facilities that contain specified hazardous materials (known as regulated substances) that, if involved in an accidental release, could result in adverse off-site consequences. The CalARP Program defines regulated substances as chemicals that pose a threat to public health and safety or the environment because they are highly toxic, flammable, or explosive.

Title 14, Division 1.5 of the California Code of Regulations

Title 14, Division 1.5 of the California Code of Regulations establishes the regulations for CAL FIRE and is applicable in all SRAs where CAL FIRE is responsible for wildfire protection. Development within SRAs must comply with these regulations. Among other things, Title 14 establishes minimum standards for emergency access, fuel modification, project site line setbacks, signage, and water supply.

California Hazardous Waste Control Law

California Health and Safety Code Division 20, Chapter 6.5 establishes regulations to protect the public health and the environment by assisting generators of hazardous waste in meeting the responsibility for the safe disposal of hazardous waste. The California Hazardous Waste Control Law is administered by CalEPA and pertains to administering a state hazardous waste program in lieu of the federal RCRA program, pursuant to Section 3006 of Public Law 94-580, as amended. The Hazardous Waste Control Law lists 791 chemicals and approximately 300 common materials that may be hazardous; establishes criteria for identifying, packaging, and labeling hazardous wastes; prescribes management controls; establishes permit requirements for treatment, storage, disposal, and transportation; and identifies some wastes that cannot be disposed of in landfills.

Title 22 of the California Code of Regulations (CCR), Division 4.5 denotes the DTSC regulates hazardous wastes. These regulations establish requirements for the management and disposal of hazardous waste in accordance with the provisions of the California Hazardous Waste Control Act and federal RCRA. As with federal requirements, waste generators must determine if their wastes are hazardous according to specified characteristics or lists of wastes. Hazardous waste generators must obtain identification numbers; prepare manifests before transporting waste off site; and use only permitted treatment, storage, and disposal facilities. Standards also include requirements for record-keeping, reporting, packaging, and labeling. Additionally, while not a federal requirement, California requires that hazardous waste be transported by registered hazardous waste transporters.

In addition, Chapter 31 of these regulations – Waste Minimization, Article 1 – Pollution Prevention and the Hazardous Waste Source Reduction and Management Review requires that generators of 12,000 kilograms/year of typical, operational hazardous waste evaluate their waste streams every 4 years and, as applicable, select and implement viable source reduction alternatives. This Act does not apply to non-typical hazardous waste, including asbestos-containing materials and PCBs, among others.

Underground Storage Tank Act

The Underground Storage Tank Act monitoring and response program is required under Chapter 6.7 of the California Health and Safety Code and Title 23 of the CCR. The program was developed to ensure that facilities meet regulatory requirements for design, monitoring, maintenance, and emergency response in operating or owning underground storage tanks. DEHQ is the administering agency for this program in the Improvement Zone.

California Occupational Safety and Health Administration

Cal/OSHA is the primary agency responsible for worker safety in the handling and use of chemicals in the workplace. Cal/OSHA standards are required to be "as effective as" federal regulations. The employer is required to monitor worker exposure to listed hazardous substances and notify workers of exposure (8 CCR 330 et seq.). The regulations specify requirements for employee training, availability of safety equipment, accident prevention programs, and hazardous substance exposure warnings. The employer is also required, among other things, to have an illness and injury prevention program.

California Department of Public Health

The California Department of Public Health enforces lead laws and regulations related to the prevention of lead poisoning in children, prevention of lead poisoning in occupational workers, accreditation and training for construction-related activities, lead exposure screening and reporting, disclosures, and limitations on the amount of lead found in products. Accredited lead specialists are required to find and abate lead hazards in a construction project and to perform lead-related construction work in an effective and safe manner.

Local

County of San Diego Department of Environmental Health and Quality (DEHQ)

DEHQ protects public health and safeguards environmental quality, educates the public to increase environmental awareness, and implements and enforces local, state, and federal environmental laws. DEHQ regulates the following: retail food safety, public housing, public swimming pools, small drinking water systems, mobile-home parks, on-site wastewater systems, recreational water, oversight and cleanup of aboveground storage tanks and underground storage tanks, and medical and hazardous materials and waste.

County of San Diego Office of Emergency Services

The Unified San Diego County Emergency Services Organization has primary responsibility for preparedness and response activities and addresses disasters and emergency situations within the unincorporated area of the County. The County of San Diego Office of Emergency Services serves as staff to the Unified Disaster Council, the governing body of the Unified San Diego County Emergency Services Organization. Emergency response and preparedness plans include the County EOP and the County MHMP.

Multi-Jurisdictional Hazard Mitigation Plan

The City is a participating jurisdiction in the County MHMP, a County-wide plan that identifies risks and minimizes damage from natural and human-caused disasters. The MHMP includes an overview of the risk assessment process, vulnerability assessments, and identifies hazards present in each jurisdiction of the County. Hazards profiled in the plan include wildfire, structure fire, flood, coastal storms, erosion, tsunami, earthquakes, liquefaction, rain-induced landslide, dam failure, hazardous materials incidents, nuclear materials release, and terrorism. The MHMP sets forth a variety of objectives and actions based on a set of broad goals, including the following: (1) promoting disaster-resistant future development; (2) increasing public understanding and support for effective hazard mitigation; (3) building support of local capacity and commitment to become less vulnerable to hazards; (4) enhancing hazard mitigation coordination and communication with federal, state, local and tribal governments; and (5) reducing the possibility of damage and losses to existing assets, particularly people, critical facilities or infrastructure, and County-owned facilities, due to dam failure, earthquake, coastal storm, erosion, tsunami, landslides, floods, structural fire/wildfire, and human-caused hazards.

San Diego County Site Assessment and Mitigation Program (SAM)

DEHQ maintains the SAM Program list of contaminated sites that have previously or are currently undergoing environmental investigations and/or remedial actions. The County SAM Program has a primary purpose to protect human health, water resources, and the environment within the County by providing oversight of assessments and cleanups in accordance with the California Health and Safety Code and the CCR. The SAM Program's voluntary assistance program also provides staff consultation, project oversight, and technical or environmental report evaluation and concurrence (when appropriate) on projects pertaining to properties contaminated with hazardous substances.

San Diego County Emergency Operations Plan (EOP)

The San Diego County EOP's operational area consists of 19 jurisdictions that range in population from several thousand to more than 1 million, with a total estimated population of more than 3.3 million. To foster a regional approach, the cities and the County joined together in 1961 to form an operational area and entered into a joint powers authority. The joint powers authority establishes procedures and protocols for participants to assist one another in the event of a disaster or major emergency exceeding the capabilities of any single jurisdiction.

City of San Diego General Plan

The City's General Plan Land use and Community Planning Element and Public Facilities, Services, and Safety Element (City of San Diego 2024b) presents goals and policies relating to hazardous materials and disaster preparedness. The following goals and policies are applicable to the Program.

Airport Policies:

- LU-G.5: Implement the height standards used by the FAA as defined by Code of Federal Regulations Title 14, Part 77 through development regulations and zoning ordinances.

Wildfire Planning Policies:

- PF-D.19: Support city-wide emergency and disaster preparedness education programs. (Also see Section PF-P. Hazard Mitigation & Disaster Preparedness).

City of San Diego Municipal Code

Hazardous Materials

The Hazardous Waste Establishment division of the San Diego Municipal Code (Chapter 4, Article 2, Division 8) enables the City's health officer to establish a program to monitor establishments where hazardous wastes are produced, stored, handled, disposed of, treated, or recycled, and to provide health care information and other appropriate technical assistance on a 24-hour basis to emergency responders in the event of a hazardous waste incident involving community exposure. The proposed Program does not require the use of hazardous materials that could result in hazardous waste.

Fire Hazard Mapping

As previously discussed, the Improvement Zone is within a LRA and classified as non-Very High Fire Hazard Severity Zone (CAL FIRE 2024). The nearest Very High FHSZs are located approximately 250 feet east and 720 feet north of the Improvement Zone within a LRA (CAL FIRE 2024). The nearest SRA is located over 12 miles north of the Improvement Zone. However, the City has its own FHSZ maps separate from CAL FIRE, which shows several portions of the Improvement Zone to be in a Very High Fire Hazard Severity Zone. Similarly, the city's mapping shows the areas to the east of the Improvement Zone to be in a Very High Fire Hazard Severity Zone, including University of San Diego and adjacent development.

According to the City's General Plan, the Fire-Rescue Department maintains the fire hazard severity zone map. The map identifies the Very High Fire Hazard Severity Zone and local agency Very High Fire Hazard Severity Zone for the LRA. The Fire Hazard Severity Zone Map from the Department of Forestry

and Fire Protection are codified in the Municipal Code. The Very High FHSZs are located throughout the City. Inclusion within these zones is based on five factors: density of vegetation; slope severity; 5-minute fire department response time; road class/proximity, and proximity to fire hydrants and California Department of Forestry and Fire Protection's vegetation cover and fire behavior/fuel spread model. Based on these factors, the zone encompasses a large portion of the City including most land use designations, major freeways and roads, various structures and major utilities and essential public facilities (City of San Diego 2024d).

Airport Land Use Compatibility Zone

The San Diego Municipal Code addresses issues related to safety compatibility in the airport land use compatibility overlay zone. The Improvement Zone is within the Airport Influence Area (San Diego International Airport – Review Area 1 and Review Area 2), Airport Land Use Compatibility Overlay Zone. Chapter 13 Article 2, Division 15 of the San Diego Municipal Code establishes the Airport Land Use Compatibility Overlay Zone, which ensures that new development located within an airport influence area for Marine Corps Air Station Miramar, Montgomery-Gibbs Executive Airport, Brown Field, San Diego Internation Airport, Naval Outlying Landing Field Imperial Beach, Naval Air Station North Island, and Gillespie Airport is compatible with respect to airport-related noise, public safety, airspace protection, and aircraft overflight areas. Regulations include safety compatibility and aircraft overflight notification.

4.7.3 SIGNIFICANCE DETERMINATION

Thresholds used to evaluate potential impacts related to health and safety are based on applicable criteria in the CEQA Guidelines Appendix G and the City's Significance Determination Thresholds (2022a). The following issue questions are addressed in this section:

1. Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;
2. 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;
3. Would the project result in hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a quarter-mile of an existing or proposed school;
4. Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan;

5. 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, creates a significant hazard to the public or environment;
6. Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including when wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands;
7. Would the project result in a safety hazard for people residing or working in a designated airport influence area; or
8. Would the project result in a safety hazard for people residing or working within two miles of a private airstrip or a private airport or heliport facility that is not covered by an adopted Airport Land Use Compatibility Plan.

4.7.4 IMPACT ANALYSIS

4.7.4.1 Methodology

The proposed Program would consist of seven elements throughout the Improvement Zone: Wetland and Water Quality Improvements, Restoration of Shoreline, Upland Habitat and Preserve Expansion, Bicycle and Pedestrian Improvements, Restoration of Seawall Bulkhead, Deferred Maintenance, and Signage Update Elements. The impact analyses below evaluate these elements in reference to health and safety (refer to Chapter 3 regarding the five elements primarily analyzed in this EIR). The analysis is based, in part, on the Hazardous Substances Abatement Plan prepared for the proposed Program. Potential public safety hazards (related to schools, emergency response plans, and wildland fires) are based on the information presented in Section 2.4.7 and the subsections below. In determining the level of significance, the analysis acknowledges that the proposed Program elements would be designed and required to comply with all applicable state and local ordinances and regulations (summarized in Section 4.7.3, Regulatory Setting).

Some of the analysis presented below applies to all Program elements, and therefore, all components under each element, while other discussions contain an element-specific analysis. Analysis applicable to all Program elements is indicated by the subheading "Common to all Program Elements." Element-specific analysis specifies which elements are being evaluated.

Issue 1: Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Construction – Common to all Program Elements

Construction would require the use of heavy equipment and machinery. Hazardous materials that may be used during construction activities include, but are not limited to, gasoline, diesel fuel, lubricants, grease, adhesives, welding gases, solvents, paints, and vehicle- and equipment-maintenance-related materials. These materials would be stored in designated construction staging areas within the boundaries of the Improvement Zone. The construction contractor would be required to ensure that the transport, handling, use, storage, and disposal of any hazardous materials are in accordance with the manufacturer's specifications and all applicable federal, state, and local laws and regulations including the U.S. Department of Transportation Hazardous Materials Regulations, the California Department of Toxic Substances, California Health and Safety Code, City of San Diego Municipal Code, and County of San Diego DEHQ. Many of the anticipated hazardous construction materials may be recycled and those that cannot be recycled would be transported by a licensed hazardous waste hauler and disposed of at an appropriately permitted off-site facility, in accordance with Title 22 CCR, Division 4.5, Environmental Health Standards for the Management of Hazardous Waste. Any accidental release of hazardous materials due to spills or leaks would be cleaned up in the normal course of business, consistent with the above-mentioned regulations.

In the event previously unknown hazardous substances or conditions are encountered that do not present an immediate threat to human health or water quality, City regulations require the construction contractor to immediately notify the City. The area surrounding the discovery of unknown contamination would be isolated with markings and the DEHQ would also be notified. Furthermore, compliance with the regulations described would ensure the safe transport, use, and disposal of hazardous materials, such that construction-related hazardous materials impacts would be **less than significant**.

Operation – Common to all Program Elements

Following completion of construction, the Program would not result in a change of land use or activities and would, therefore, not increase the use of hazardous materials on the site. The transport, use, and disposal of any hazardous materials for maintenance activities would continue to occur in compliance with all applicable regulations. As such, operational impacts related to the routine transport, use, or disposal of hazardous materials would be **less than significant**.

Issue 2: 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?

Construction

As described in Issue 1, equipment used during construction activities for all Program elements has the potential to release oils, greases, solvents, and other finishing materials through accidental spills. Spill or upset of these materials could have the potential to impact surrounding land uses. Spills or leakage of petroleum products during construction activities are required to be immediately contained, the hazardous material identified, and the material remediated in compliance with applicable state and local regulations, including the California Health and Safety Code and the County of San Diego DEHQ Hazardous Materials Division for the cleanup and disposal of that contaminant. Compliance with state and local regulations would minimize the potential for the accidental release or upset of hazardous materials, ensuring public safety.

In addition, and as discussed in more detail in Section 4.8, Hydrology and Water Quality, Program elements and components would adhere to stormwater regulatory requirements, including the National Pollutant Discharge Elimination System and MS4 permits, where applicable. For Program elements and components that exceed a disturbance area of 1 acre, Stormwater Pollution Prevention Plans (SWPPPs) would be implemented, as required by National Pollutant Discharge Elimination System. Components with smaller disturbance areas would require an MS4 permit and/or the implementation of best management practices (BMPs). These regulations would ensure that all development be conducted to prevent erosion and stop sediment and pollutants from draining off site to the extent feasible. Furthermore, all elements would implement BMPs to prevent and minimize incidental spills of petroleum products and hazardous materials. The water quality control programs, standards, and regulations applicable to each Program element during construction are listed below.

Wetland and Water Quality Improvements

The proposed wetland and water quality improvements would involve water quality improvements and wetland habitat creation to enhance existing wetland habitat, jurisdictional limits, topography, and tidal influence resulting in benefits to water quality aquatic resources, fish and wildlife species, environmental enhancement, and natural recreation. For all three of the wetland and water quality components, North Fiesta Island Wetlands, Cudahy Creek, and Tecolote Creek and Fiesta Island Causeway elements, which would require an acre or more of dryland ground disturbance, a project-specific SWPPP would be implemented. Other components that would involve improvements in aquatic land covers would be required to comply with Section 404, Section 401, of the Clean Water Act for discharge into waters of the United States and Section 10 of the Rivers and Harbors Act. Compliance with project-specific SWPPPs and other regulations described would ensure that the potential for release of hazardous materials into the environment would be **less than significant**.

Restoration of Shoreline

Shoreline restoration is proposed at eight locations throughout the Improvement Zone (see Figure 3-8, Restoration of Shoreline Element, in Chapter 3). Three of these locations, including, Bahia Point, Bonita Cove, and Vacation Islande NW would require implementation of a SWPPP. While all other proposed locations, including Crown Point, Vacation Island NW, Vacation Island SW, Ventura Island SW, Ventura Cove, and West Sail Bay, would implement BMPs such as swales on land or silt curtains if in water to minimize discharge of construction materials into the Mission Bay. Implementation of the required SWPPP and BMPs as applicable would ensure impacts would be **less than significant**.

Upland Habitat and Preservation Expansion

The Upland Habitat And Preservation Expansion Element would enhance and expand upland habitat biological resources and restore/enhance suitable upland habitat. Components under this element would all result in disturbance of an area greater than 1 acre. As such, project-specific SWPPPs and associated BMPs would be implemented during construction to minimize potential hazardous impacts associated with construction. Further one component of this element, the South Shores component, would involve activities above the former landfill listed. However, no excavation is proposed, rather additional fill is proposed to avoid interaction with the landfill or cap and provide for increased habitat avoiding potential impacts associated with disturbance of the former landfill. Implementation of the project-specific SWPPP and associated BMPs would result in **less-than-significant impacts**.

Bicycle and Pedestrian Improvements

This element would improve existing pedestrian and bicycle facilities within the Improvement Zone (see Figure 3-25, Bicycle and Pedestrian Improvements Element, in Chapter 3). The Rose Creek Bike Path and the Ocean Beach Bike path improvements would involve a disturbance area greater than 1 acre and would thus require project-specific SWPPPs and associated BMPs. Improvements at the Fiesta Island Causeway and Robb Field/Gateway would be smaller in size and would instead implement structural pollutant control requirements and BMPs. With implementation of the BMPs and SWPPPs, as applicable, impacts would be **less than significant**.

Restoration of Seawall Bulkhead

Restoration of the Seawall Bulkhead would involve the repair and extension of the seawall along the frontage of Mission Beach to Pacific Beach. The restoration would result in disturbance of an area greater than 1 acre. As such, project-specific SWPPPs and associated BMPs would be implemented during construction to minimize potential hazardous impacts associated with construction.

Implementation of the project-specific SWPPP and associated BMPs would result in **less-than-significant impacts**.

Operation – Common to all Program Elements

Operation of the Program elements would involve an unquantifiable, but limited, use of potentially hazardous materials typical of recreational uses, including cleaning fluids, detergents, solvents, adhesives, sealers, paints, fuels/lubricants, and fertilizers and/or pesticides for landscaping and maintenance. These materials would be contained, stored, and used on site in accordance with manufacturers' instructions, applicable standards, and federal, state, and local regulations. Compliance with applicable regulations would serve to protect against a significant and irreversible environmental change that could result from the accidental release of hazardous materials. Impacts would be **less than significant**.

Issue 3: Would the project result in hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within a quarter-mile of an existing or proposed school?

Construction and Operation – Common to all Program Elements

Construction of the Program elements could involve the transport of commonly used hazardous substances, such as gasoline, diesel fuel, lubricating oil, grease, and solvents. These materials would be transported, handled, and disposed of in accordance with all applicable federal, state, and local laws and regulations pertaining to the management and use of hazardous materials. Consequently, use of these materials for their intended purpose would not pose a significant risk to the public or the environment.

As discussed in Section 4.7.2, there are several schools located within a 1-mile radius of the proposed Improvement Zone. Mission Bay Senior High School is the nearest school, located directly adjacent to the northeast portion of the Improvement Zone. However, as discussed in Issues 1 and 2, the Program is not anticipated to result in significant impacts associated with the release of hazardous materials into the environment. All hazardous materials used on site during construction and operation would be used, handled, and stored in compliance with all applicable federal, state, and local health and safety regulations. Additionally, any on-site hazardous materials that may require transportation off site would be transported by a licensed contractor and properly disposed of.

The proposed Program involves wetland and water quality improvements, restoration of shoreline, upland habitat and preserve expansion, bicycle and pedestrian improvements, restoration of seawall bulkhead, deferred maintenance, and signage updates. The Program would not result in activities that would generate hazardous materials or emissions or require the handling of hazardous or acutely

hazardous materials, substance, or waste within 0.25 miles of existing schools. Please also see response to Issue 3 above. Therefore, although Program elements are located within 0.25 miles of an existing school, impacts to these school from emission and/or handling of hazardous materials, substances, or waste would be **less than significant.**

Issue 4: Would the project impair implementation of, or physically interfere with, an adopted emergency response plan or emergency evacuation plan?

The San Diego County EOP identifies a broad range of potential hazards and a response plan for public protection (County of San Diego 2023b). The plan identifies major interstates and highways within the County that could be used as primary routes for evacuation, including I-5 and I-8, located east and south of the Improvement Zone, respectively. The Program's design would be consistent with the City's Municipal Code standards for emergency vehicle access, and no components would impair the implementation of or compliance with an adopted evacuation plan. The Program would not alter existing transportation facilities that have been identified as emergency routes or have been otherwise identified for use during an emergency, or existing emergency plan routes. The proposed bicycle and pedestrian improvements would likely improve circulation for non-motorists travelling within Mission Bay Park, which could improve evacuation times in the event of an emergency. Visitors would arrive on foot or by bicycle, passenger vehicle, or public transportation and would be required to leave the project area during an emergency evacuation event. The Program would further comply with the County EOP and would not interfere with a response to disaster situations, including impairment of I-5 or I-8 in an emergency. A description of the proposed elements and their potential to impact the County's EOP is provided below.

Wetland and Water Quality Improvements

Construction: The Wetland and Water Quality Improvements Element includes the North Fiesta Island, Tecolote creek and Fiesta Island Causeway, and Cudahy Creek components. Construction activities associated with these components would result in a temporary limitation of public access around the northern perimeter of North Fiesta Island, which could interfere with a roadway designated for emergency access. However, emergency access would still be provided to North Fiesta Island via the south entrance and emergency access would not be completely restricted. The preliminary engineering designs for these components (Appendices B, C, and D to this EIR) are at up to a 30% design stage. The next step, 60% design, would include a plan set with additional sheets, including traffic control, where applicable. The 100% level of the submittal package includes complete plans, opinion of probable construction costs, specifications, and a signed DS-560. Once the components are ready for implementation, it would be determined if a traffic control permit would be required from the City of San Diego. The traffic control permit is required for all work encroaching into public right-of-way and helps ensure safe traffic passage. Further, all construction activity would

be subject to the requirements and standards of the City's "WHITEBOOK, " Standard Specifications for Public Works Construction—specifically, Part 6, Sections 600 and 601 (City of San Diego 2021a). Lastly, any construction activity that would involve encroachment on California Department of Transportation (Caltrans) facilities (i.e., state highways) would be required to obtain an encroachment permit, which would also outline traffic control requirements. Compliance with the requirements of the traffic control permits and the "WHITEBOOK" would ensure that during the temporary use of emergency access routes by construction vehicles and equipment during construction would not obstruct emergency response or evacuation.

Therefore, the components would not result in the interference of an adopted emergency response plan, a **less-than-significant** impact would occur.

Operation: The Wetland and Water Quality Improvements Element does not include activities that would alter the condition of the existing roadways. Operation and maintenance associated with the Program would not alter the use patterns of the North Fiesta Island, Tecolote creek and Fiesta Island Causeway, and Cudahy creek components use areas such that more visitors would be present. Therefore, the wetland and water quality improvements associated with the operation of the element would not result in a change in the condition of the roadways or conflict with an adopted emergency response plan, and **no impact** would occur.

Restoration of Shoreline

Construction: The Restoration of Shoreline Element includes eight program-level components sites throughout Mission Bay, which include the following: Vacation Island NW, Vacation Island NE, Vacation Island SW, Ventura Cove, Crown Point, West Sail Bay, Bonita Cove, and Bahia Point. Construction of this element would result in temporary increases associated with trip generation. Mobilization and demobilization of heavy construction equipment would be brought to the restoration sites by way of the regional highway (I-5, I-8, Pacific Coast Highway) and local street network. The larger pieces of equipment would likely be transported to the restoration site on trucks during the late evening to early morning (between 9:00 p.m. and 6:00 a.m.) hours to minimize potential traffic congestion. Once the components are ready for implementation, it would be determined if a traffic control permit would be required from the City of San Diego. The traffic control permit is required for all work encroaching into public right-of-way and helps ensure safe traffic passage. Further, all construction activity would be subject to the requirements and standards of the City's "WHITEBOOK"; specifically Part 6, Sections 600 and 601. Lastly, any construction activity that would involve encroachment on Caltrans facilities (i.e., state highways) would be required to obtain an encroachment permit, which would also outline traffic control requirements. Compliance with the requirements of the traffic control permits and the "WHITEBOOK" would ensure that during the temporary use of emergency access routes by construction vehicles and equipment during construction would not obstruct emergency response or

evacuation. Implementation of these activities would ensure visitor safety and convenience around North Fiesta Island. Therefore, the components would not result in the interference of an adopted emergency response plan, a **less-than-significant** impact would occur.

Operation: Upon completion of construction activities, the operation of the Restoration of Shoreline Element would result in alteration of the condition of existing roadways. Implementation of the Program would not alter the use patterns of the restoration sites, such that more visitors would be present, which could alter the emergency response or evacuation implementation. Therefore, operation of the element would not result in a conflict with an adopted emergency response plan, and **no impact** would occur.

Upland Habitat and Preservation Expansion

Construction: The Upland Habitat and Preservation Expansion Element includes seven project-level component sites proposed for habitat expansion and preservation. Construction associated with this element would require minimal truck trips to and from the site and a traffic control plan would not be required for this element. Therefore, the proposed element would not conflict with an adopted emergency response program, impacts would be **less than significant**.

Operation: Upon completion of construction activities, operation and maintenance associated with the Upland Habitat and Preservation Expansion Element would not result in a change of existing roadways or use patterns of the site such that more visitors would be present. Therefore, the element would not conflict with an adopted emergency response program and **no impact** would occur.

Bicycle and Pedestrian Improvements

Construction: The Bicycle and Pedestrian Improvements Element includes four program-level component locations, which are the Rose Creek Bike Path, Fiesta Island Causeway, Ocean Beach Bike Path, and the Robb Field/Gateway Connectivity Path. The construction activities of each of the locations would be similar. Three of the four proposed component sites would need to consider rerouting existing users during construction, as discussed in Section 3, Project Description. The Robb Field/Gateway Connectivity Path does not require rerouting of existing users. Construction associated with each component could result in temporary land closures that could interfere with emergency access. Once the components are ready for implementation, it would be determined if a traffic control permit would be required from the City of San Diego. The traffic control permit is required for all work encroaching into public right-of-way and helps ensure safe traffic passage. Further, all construction activity would be subject to the requirements and standards of the City's "WHITEBOOK"; specifically, Part 6, Sections 600 and 601. Lastly, any construction activity that would involve encroachment on Caltrans facilities (i.e., state highways) would be required to obtain an encroachment permit, which would also outline traffic control requirements. Compliance with the requirements of the traffic

control permits and the "WHITEBOOK" would ensure that during the temporary use of emergency access routes by construction vehicles and equipment during construction would not obstruct emergency response or evacuation. Implementation of these activities would ensure visitor safety and convenience at the component areas. Therefore, the components would not result in the interference of an adopted emergency response plan, a **less-than-significant** impact would occur.

Operation: Upon completion of construction activities, the components of the Bicycle and Pedestrian Improvements Element would be restored to their existing uses as bicycle baths and the element would not result in an alteration of existing roadways for emergency access transportation. The proposed bicycle and pedestrian improvements would likely improve circulation for non-motorists travelling within Mission Bay Park, which could improve evacuation times in the event of an emergency. Visitors would arrive on foot or by bicycle, passenger vehicle, or public transportation and would be required to leave the project area during an emergency evacuation event. Therefore, the element would not result in a conflict with an existing emergency response program and **no impact** would occur.

Restoration of Seawall Bulkhead

Construction: Construction activities associated with the Restoration of Seawall Bulkhead would result in a temporary closure to the boardwalk to provide the necessary clearance for wall footing excavation. The element proposes the adjacent parking lot be used as a temporary pedestrian traffic detour during construction. While this temporary closure could result in an impairment with an adopted emergency access plan, Once the components are ready for implementation, it would be determined if a traffic control permit would be required from the City of San Diego. The traffic control permit is required for all work encroaching into public right-of-way and helps ensure safe traffic passage. Further, all construction activity would be subject to the requirements and standards of the City's "WHITEBOOK"; specifically, Part 6, Sections 600 and 601. Lastly, any construction activity that would involve encroachment on Caltrans facilities (i.e., state highways) would be required to obtain an encroachment permit, which would also outline traffic control requirements. Compliance with the requirements of the traffic control permits and the "WHITEBOOK" would ensure that during the temporary use of emergency access routes by construction vehicles and equipment during construction would not obstruct emergency response or evacuation. Therefore, the components would not result in the interference of an adopted emergency response plan, a **less-than-significant** impact would occur.

Operation: Operation and maintenance associated with the Restoration of Seawall Bulkhead Element would result in access improvements and a new vehicular driveway. Therefore, the proposed element would not alter roadways that would impair or conflict with an adopted emergency response program and a **less-than-significant** impact would occur.

Issue 5: 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 environment?

According to a search of federal, state, and local regulatory databases, there are several sites within the Improvement Zone that are on a list of hazardous materials sites compiled pursuant to California Government Code, Section 65962.5. The San Diego County DEHQ online files also revealed potentially hazardous sites. A discussion of the identified sites previously presented in Section 2.7, and the potential for associated impacts as a result of proposed construction and operational activities is presented below. Refer to Figure 4.7-1 for the locations of the identified hazardous sites relevant to the Improvement Zone. The geographic specific Program components do not overlap with the location (South Fiesta Island) of any Formerly Used Defense Site as identified by the U.S. Army Corps of Engineers (USACE 2024) or on the EnviroStor database (2026). Deferred maintenance and signage activities would continue to be undertake in a manner sensitive to this feature, and no substantial ground disturbance would be associated with those Elements in this location.

Construction

Wetland and Water Quality Improvements

As previously stated, the Former Pike/Peik Airfield site extends to the Tecolote Creek/Fiesta Island Causeway area. Proposed construction activities at the Fiesta Island Causeway, which overlies the former airfield's runway, include creation of an open channel beneath the causeway to create a hydraulic connection between the basins on either side. The channel would require excavation and grading activities. Because the thickness of fill material in the area of the former runway is unknown, it is possible that earthwork activities may encounter contaminated media associated with the waste oil application (soil, soil vapor, or groundwater). Should contaminated media be encountered, recommendations outlined in the Hazardous Substance Abatement Plan, included as Appendix Q of this EIR, shall be implemented, as required by environmental protocol EP-SW-1. Prior to initiation, through contract bid items specific to the conditions of the component, the contractor would be required to prepare and implement certain standards of the City's "WHITEBOOK" that allow the contractor to adequately prepare for encountering hazardous substances throughout the life of the component. The contractor would provide a Community Health and Safety Plan (CHSP) and a Hazardous Substances Management Plan (HSMP) to outline appropriate actions if hazardous substances are encountered.

If contaminated media is encountered and must be removed from site, it must be disposed of at the proper facility. California-hazardous non-RCRA waste (waste that exceeds State hazardous wastes criteria but does not exceed Federal hazardous waste criteria) can be disposed of at a Class I facility

permitted by the State of California or, if located outside California, permitted by equivalent state agencies to receive the properly characterized and classified waste. For example, in Arizona, California-hazardous non-RCRA waste can be disposed of as non-hazardous waste in a Subtitle D landfill provided landfill requirements are met. The following landfills can receive California-hazardous non-RCRA waste:

- Clean Harbors Class I Landfill, Buttonwillow, California;
- Waste Management Class I Landfill, Kettleman City, California;
- C.R. & R South Yuma County Landfill in Yuma, Arizona; and
- Republic Services Copper Mountain Landfill in Wellton, Arizona.

Soil that exceeds Federal hazardous waste criteria will also, by definition, exceed State hazardous waste criteria and will be classified as RCRA hazardous waste. This waste can only be disposed of at a Class I facility permitted by the State of California or a RCRA hazardous landfill outside California. The following landfills can receive RCRA hazardous waste:

- Clean Harbors Class I Landfill, Buttonwillow, California;
- Waste Management Class I Landfill, Kettleman City, California; and
- U.S. Ecology Landfill, Beatty, Nevada.

Uniform hazardous waste manifests will be used to track the transportation and disposal of California non-RCRA hazardous waste and RCRA hazardous waste. Statutory requirements governing hazardous waste transportation in California are specified in Division 20, Chapter 6.5, Article 6.5, Article 6.6, and Article 13 of the California Health and Safety Code. Regulations adopted pursuant to these statutes are specified in Division 4.5, Chapter 13, and Chapter 29 of the California Code of Regulations, Title 22. Hazardous waste will only be transported by a transportation company which holds a valid registration from the California Department of Toxic Substances Control (DTSC). Requirements for hazardous waste transport can be found at http://www.dtsc.ca.gov/HazardousWaste/Transporters/. Other requirements include, but are not limited to:

- A valid Motor Carrier Permit from the California Department of Motor Vehicles;
- U. S. Environmental Protection Agency Identification number;
- U. S. Department of Transportation Identification number; and
- U. S. Department of Transportation Hazardous Materials Certificate of Registration.

Certain contaminated materials (e.g., treated-wood waste) may have chemicals present at concentrations that make the waste hazardous in California. California has promulgated regulations

(Assembly Bill 1353) that allow for materials to be managed and disposed of as non-hazardous waste, provided specific requirements and protocols are followed and documented. The element or component-specific Soil Management Plan will discuss these requirements in further detail. Compliance with these state regulations for the proper disposal of contaminated media would prevent or minimize the potential hazard to the public or the environment from the Former Pike/Peik Airfield.

Therefore, construction activities associated with the Wetland and Water Quality Improvements Element would be **less than significant**.

Upland Habitat and Preservation Expansion

Six of the identified hazardous sites are located within, or in proximity to the footprints of proposed upland habitat and preservation expansion activities within the Improvement Zone. The sites include Mission Bay Land Fill, Radar Station L-6 MIS, Fiesta Island Sludge Drying, Former Pike/Peik Airfield, Sea World (500 Sea World), and the Former Sewage Disposal Ponds. Included below is a discussion on the potential for construction-related impacts relevant to the sites.

Mission Bay Landfill

The Mission Bay Landfill site is situated within the Upland Habitat and Preservation Expansion Element footprint at Site No. 5c – South Shores East Restoration Area. The previous landfill site was considered during the Program's planning phase. The proposed improvements, including construction activities, have been designed to minimize the risk of disturbing or unearthing any hazardous materials associated with the previous landfill by excluding excavation activities. The landfill is capped at an average depth of 9.3 feet. Construction and habitat expansion activities at this location would involve importing and placing additional sand and loamy soils over the existing cap. This would add protective depth to the buried layer above materials while also creating topographic variation to enhance habitat diversity and microclimates that support species diversity. Any necessary grading would occur after the additional soil material has been imported and distributed across the targeted areas of this footprint. As such, construction at this location would not create a significant hazard to the public or environment and impacts would be considered **less than significant**.

Radar Station L-6 MIS

This site is located immediately west of the proposed Sea World Drive/San Diego River Site No. 4d – South Shores East Area. As discussed in Section 2.7, the contaminants of concern at this site were not recorded. According to the Hazardous Substance Abatement Plan (Appendix Q), based on the inactive status of the site, the reported former military activity (radar and campsite), and the lack of

documentation of a release, it is unlikely that impacted soil or groundwater from this site, if any, would be encountered during component construction. As such, impacts would be **less than significant**.

Fiesta Island Sludge Drying

This site is located at the southwest portion of Fiesta Island and was historically used for drying domestic sludge. The proposed Program elements for the Fiesta Island area would include Upland Habitat and Preserve Expansion (Fiesta Island Site No. 1, 2, 3, 4, and 5), Bicycle and Pedestrian Improvements (Fiesta Island Causeway), and Water Quality/Wetland Restoration (North Fiesta Island). Based on historical DEHQ documents, the sludge drying operations were formerly located on the southwestern portion of Fiesta Island, west of the "Hidden Anchorage" inlet. Program elements are not proposed for this area; the closest proposed elements are Fiesta Island Site No. 1 and 4, located more than 1,000 feet to the east and north, respectively. As a result, construction activities related to this site would be **less than significant**.

Former Pike/Peik Airfield

This site extends to the northern portion of Sea World Drive/San Diego River Site No. 5c – South Shores East and the Tecolote Creek/Fiesta Island Causeway. Impacts related to the Tecolote Creek/Fiesta Island Causeway and this site are discussed under "Wetland and Water Quality Improvements," below. As previously discussed, this site was once operated as an airfield that included an oiled runway and three hangars. The airfield further offered fuel, storage, and aircraft repair. The entirety of the former airfield and runway were covered with dredged fill material after the airport closed sometime in the 1950s.

Based on a review of historical aerial photographs, the storage and repair of aircraft and fuel systems likely occurred under what is proposed to be Site No. 4d – South Shores East. According to Appendix Q, it is reasonable to expect that surface spills of petroleum, oil, and/or lubricants from historical aircraft repair/maintenance facilities and/or former fuel storage areas may have impacted shallow soil. Chemicals of concern can include total petroleum hydrocarbons, VOCs, PAHs, and heavy metals.

The thickness of fill material in the area of the former aircraft and fuel storage/repair areas associated with the airport is unknown. It is anticipated that construction-related earthwork at Site No. 5c would be limited to disturbance of shallow soils/sands, including grading of soils/sands that may be imported to the site. No deep construction activities (e.g., footings, excavations) are associated with the Upland Habitat and Preservation Expansion Element. Depth to groundwater is greater than 15 feet below grade in this area; therefore, groundwater is not expected to be encountered. It is possible that some minor petroleum contamination in soil attributed to surface spills at the former airport may be encountered. However, local, state, and federal regulations, including a SWPPP, and the City's "WHITEBOOK" would be implemented during construction activities to address the discovery of

unknown contaminants and minimize the spread of any potential contamination. Compliance with state and local regulations and BMPs, construction-related impacts would be **less than significant**.

Sea World (500 Sea World)

This site is located north of the Sea World Drive/San Diego River Site No. 5a – Cloverleaf Enhancement Area. Parking lots and Sea World Drive separate the Sea World site from San Diego River Site No. 5a by approximately 800 feet. The site is associated with a closed unauthorized release case, abandoned wells, and various petroleum releases in the Sea World Marina. The petroleum releases were de minimis quantities and were reported to be contained and soaked up with absorbents. Based on the distance of the Sea World Marina to Site No. 5a - Cloverleaf Enhancement Area (approximately 2,200 feet) and the limited nature of the releases, there is a low potential of contact with contaminated surface water during construction activities. It is unlikely that impacted soil, surface water, or groundwater from the releases, if any, would be encountered during construction. As such, impacts would be **less than significant**.

Former Sewage Disposal Ponds

This site is located within the Sea World Drive/San Diego River Site No. 5a - Cloverleaf Enhancement Area footprint and is associated with previous sewage disposal ponds. Proposed activities in Site No. 1a – Cloverleaf Least Tern Preserve Area include weed removal, import of sand to increase bird nesting areas, revegetation in buffer zone areas, and minor topographic variation and mounding.

If improvements are proposed in the area of the former sewage disposal ponds, there would be potential for contaminated soil to be encountered during Program activities. Although the actual type of waste disposed to the ponds is unknown, if the waste is assumed to be domestic sewage, primary chemicals-of-concern in soil may include metals, VOCs, PFAS, and PAHs. There is also the potential for exposure by inhalation of vapor phase VOCs, which can volatilize from impacted soil and groundwater, migrate through the unsaturated zone, and accumulate in excavations and trenches. The Hazardous Substances Abatement Plan prepared for the Program (Appendix Q) concluded that although the type of chemical exposure and degree of exposure is not known; it would be unlikely that residual contamination at this site would pose a threat to workers or the public. As such, impacts would be **less than significant**.

Bicycle and Pedestrian Improvements

Three potential hazardous sites were identified to be in proximity to the proposed bicycle and pedestrian improvements. Included below is a discussion on the potential for construction-related impacts relevant to the sites.

Historical Gas Station

This site is located directly east of the Rose Creek Bike Path area and previously operated as a gas station. Due to the nature of previous uses, there is a potential for contaminated soil to be encountered during construction. The primary contaminants of concern in soil from unauthorized releases of petroleum are potentially total petroleum hydrocarbons, VOCs, and PAHs. There is also the potential for exposure by inhalation of vapor phase VOCs, which can volatilize from impacted soil and groundwater, migrate through the unsaturated zone, and accumulate in excavations and trenches. The type of chemical exposure and degree of exposure is not known, but based on other similar cases, it is unlikely that residual contamination at this site would pose a threat to workers or the public. As such, impacts would be **less than significant**.

Dry Clean Empire

This site is located south of the proposed Rose Creek Bike Path and is listed on unauthorized release databases with a case-closed status. The closest portion of the proposed bike/pedestrian improvements would be approximately 100 feet north of the former dry-cleaning facility. Based on the distance of the proposed improvements from the release area, and the limited nature of the release to soil, impacted media would likely not be encountered during construction activities. Therefore, impacts would be considered **less than significant**.

Ocean Beach Gas Station

This site is located 100 feet southeast of the proposed Robb Field/Gateway Connectivity Path and is associated with several closed unauthorized release cases and is listed as a historical and active underground storage tank location. Based on the distance of the proposed construction excavation (if any) at the Robb Field/Gateway Connectivity Path to this site, residual contamination in soil is not expected to be encountered. Some minor residual contamination may be present in groundwater that may be encountered during construction dewatering, such as for retaining wall footings. There is also a potential to encounter low levels of chlorinated hydrocarbons in the soil gas phase that may be present in trenches excavated for construction. Should contaminated media be encountered, recommendations outlined in the Hazardous Substance Abatement Plan, included as Appendix Q of this EIR, shall be implemented, as required by environmental protocol EP-SW-1. Prior to initiation, through contract bid items specific to the conditions of the component, the contractor would be required to prepare and implement certain standards of the City's "WHITEBOOK" that allow the contractor to adequately prepare for encountering hazardous substances throughout the life of the component (City of San Diego 2021a). The contractor would provide a Community Health and Safety Plan (CHSP) and a Hazardous Substances Management Plan (HSMP) to outline appropriate actions if

hazardous substances are encountered. Therefore, construction activities associated with the Wetland and Water Quality Improvements Element would be **less than significant**.

Restoration of Seawall Bulkhead and Restoration of Shoreline

No existing, recorded hazardous materials sites are located within the footprints of proposed activities related to the restoration of seawall bulkhead or restoration of shoreline. As such, **no impacts** would occur related to these improvements.

Operation – Common to all Program Elements

Implementation of the Program would not result in a change of land use or activities and would, therefore, not create a significant hazard to the public or environment due existing hazardous materials sites. As such, operation-related activities would not create a significant hazard to the public or environment and operational impacts would be considered less than significant.

Issue 6: Would the project expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including when wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?

Construction and Operation – Common to all Program Elements

The Improvement Zone is within Local Responsibility Area and contains some areas classifies a Very High Fire Hazard Severity Zone. The Improvement Zone is surrounded by development, including commercial, residential, and recreational land uses. The Improvement Zone also includes and is adjacent to marine waters of Mission Bay. These land use types do not contain wildland fuel sources likely to burn in the event of a wildfire, which significantly reduces the likelihood of wildfires impacting the Improvement Zone. Similarly, the Program would not create areas of substantial dry vegetation or forested areas, which have a higher probability to burn in the event of an urban wildfire. The proposed Program elements do not include the construction of habitable structures and involve wetland and water quality improvements, restoration of shoreline, upland habitat and preserve expansion, bicycle and pedestrian improvements, restoration of seawall bulkhead, deferred maintenance, and signage updates. The proposed Program elements would comply with local fire emergency protocols and local emergency evacuation and disaster plans in the event of a wildfire or emergency. The Program's impact relating to wildland fire risk would be less than significant.

Issue 7 and 8: Would the project result in a safety hazard for people residing or working in a designated airport influence area?

and

Would the project result in a safety hazard for people residing or working within two miles of a private airstrip or a private airport or heliport facility that is not covered by an adopted Airport Land Use Compatibility Plan?

Construction and Operation – Common to all Program Elements

The Improvement Zone is located within the Airport Influence Area (San Diego International Airport – Review Area 1 and Review Area 2), Airport Land Use Compatibility Overlay Zone. Review Area 2 is defined by the combination of the airspace protection and overflight boundaries beyond Review Area 1. Only airspace protection and overflight policies and standards apply within Review Area 2. Airport land use compatibility or ALUC review is required for land use plans and regulations within Review Area 2 that propose buildings or uses that exceed the 200-foot height limit and for land use projects that; have received from the FAA a Notice of Presumed Hazard, a Determination of Hazard or a Determination of No Hazard subject to conditions, limitations or marking and lighting requirements, and/or would create glare, lighting, electromagnetic interference, dust, water vapor, smoke, thermal plumes, and bird attractant hazards. The southwest corner of the Improvement Zone is located within the 60–65 dB CNEL boundary of the noise contours for San Diego International Airport but is not within a Safety Zone (San Diego County Regional Airport Authority 2025). The proposed Program does not trigger the notification criteria of the Federal Aviation Administration as defined by the Code of Federal Regulations, Title 14, Part 77, because the proposed Program does not include residential development and is therefore not required to undergo review by the FAA for obstruction evaluation.

Given that the Program would not be located within the Safety Zones associated with the San Diego International Airport, would not introduce any hazards to air navigation, including glare or electromagnetic interference, and no new land uses are proposed, the Program is not anticipated to result in a safety hazard for people residing or working in a designated airport influence area.

Additionally, the Program is not inconsistent with the San Diego International Airport's ALUCP and the Improvement Zone is not located within 2 miles of any private airstrips or heliports that are not covered by an adopted ALUCP. As a result, the Program would not present a safety hazard for people residing or working near such facilities. The design and function of the proposed Program align with applicable standards, and the proposed elements under the Program would not create potential hazards related to aviation. Therefore, compliance with the FAA regulations and the ALUCP Review Area 1 and 2 requirements would ensure that the Program would result in a **less-than-significant** airport safety hazard impact.

4.7.5 MITIGATION, MONITORING AND REPORTING

Impacts would be **less than significant**; no mitigation is required for Issues 1 through 8.

4.7.6 SIGNIFICANCE OF IMPACTS AFTER MITIGATION

Impacts would be less than significant, and no mitigation is required.

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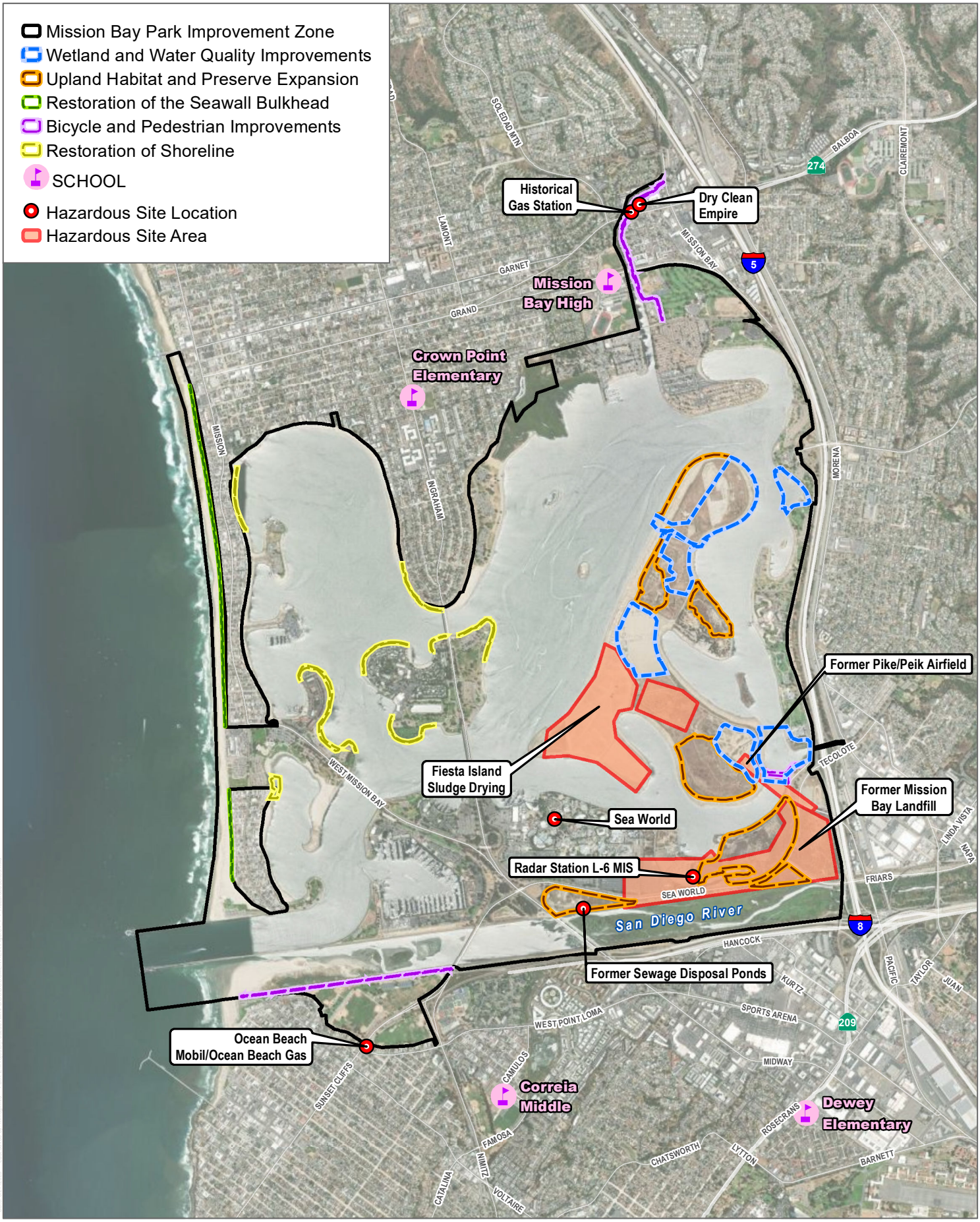

SOURCE: Maxar 2023; SanGIS 2024

DUDEK

0 1,500 3,000 Feet

FIGURE 4.7-1

Hazardous Sites

Mission Bay Park Improvements Program EIR

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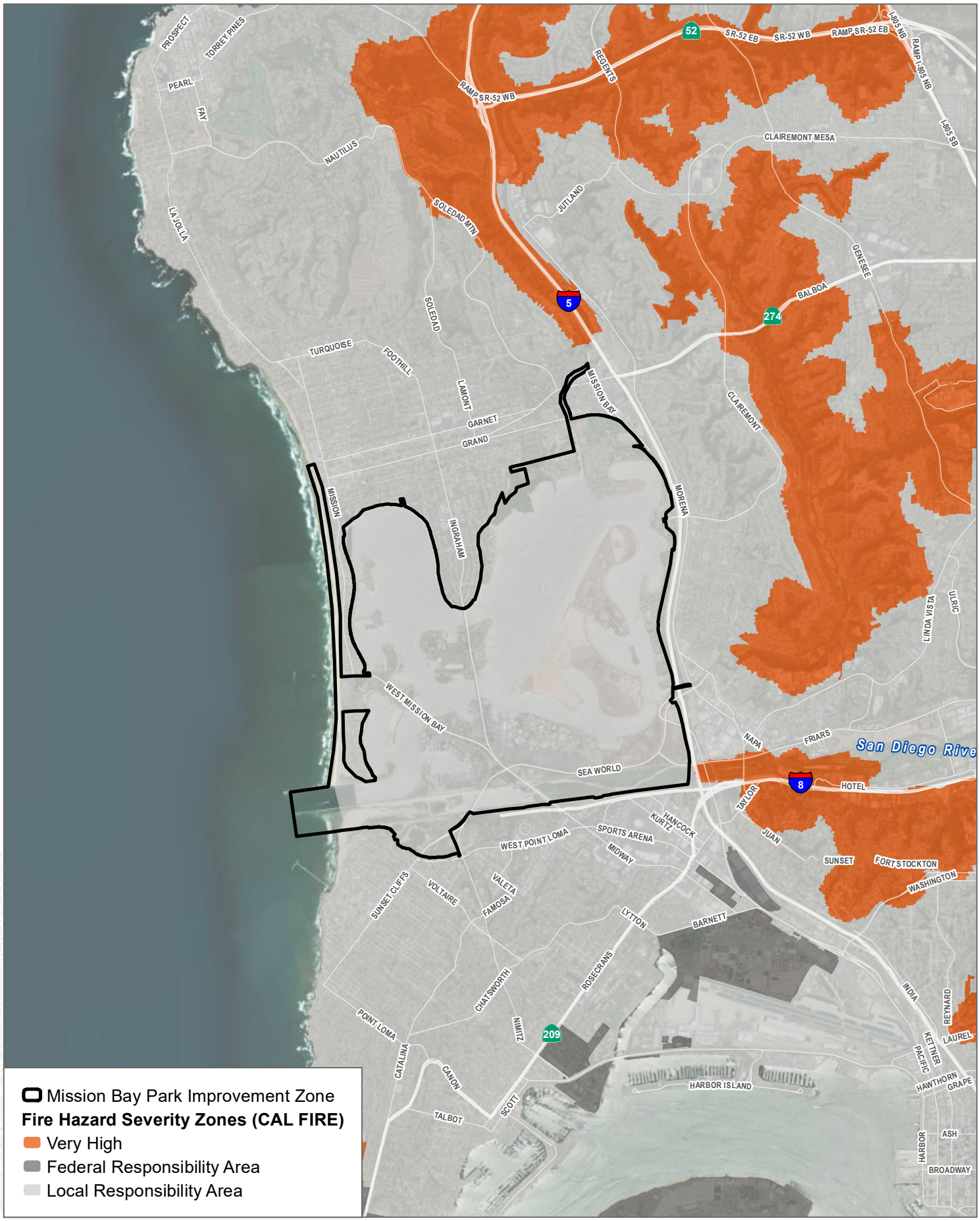

SOURCE: ESRI 2024; SanGIS 2024; CAL FIRE 2024

DUDEK

0 0.475 0.95 Miles

FIGURE 4.7-2

CAL FIRE FHSZs

Mission Bay Park Improvements Program EIR

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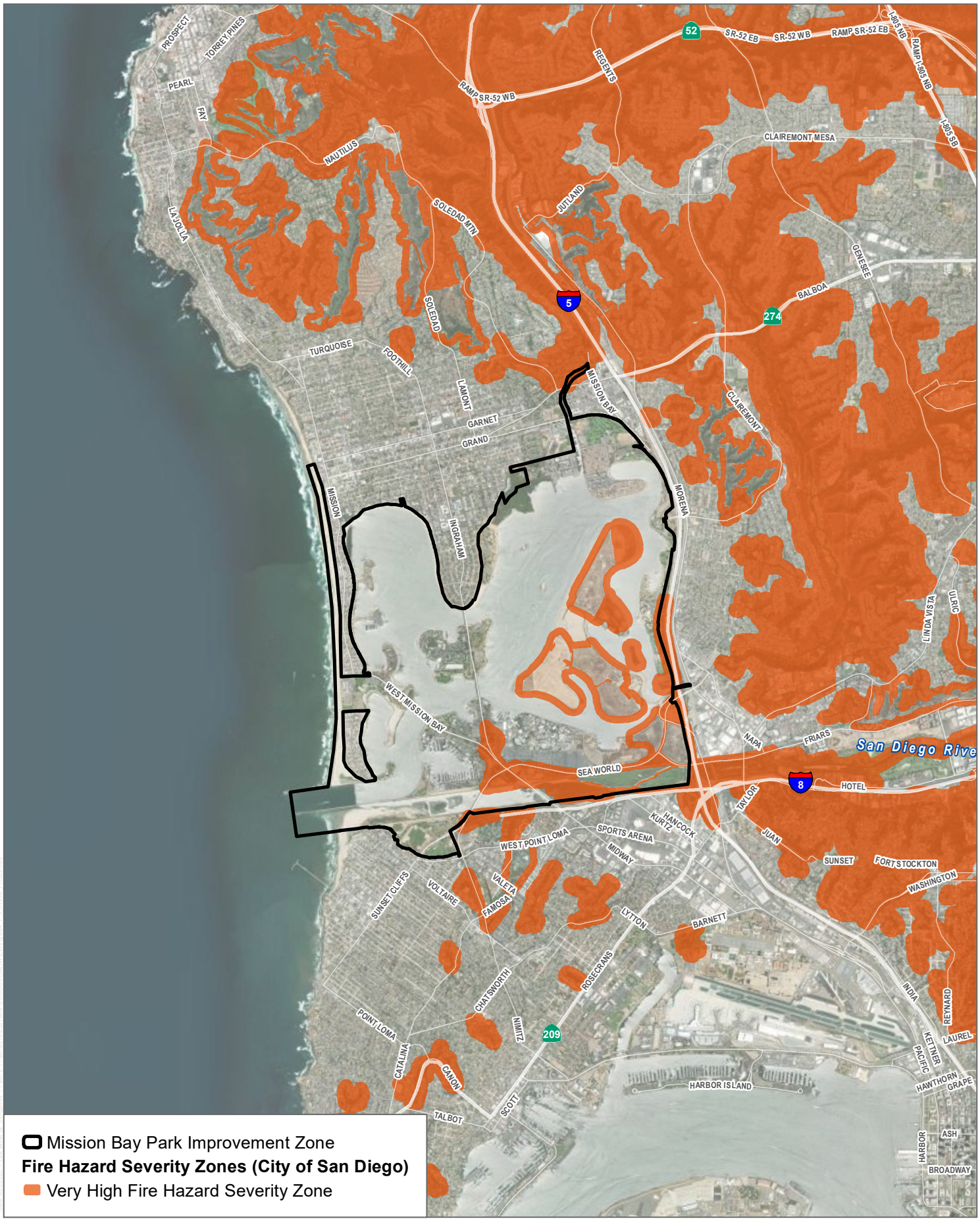

SOURCE: ESRI 2024; SanGIS 2024; CAL FIRE 2024

DUDEK

0 0.5 1 Miles

FIGURE 4.7-3

City of San Diego FHSZs

Mission Bay Park Improvements Program EIR

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4.8 HYDROLOGY AND WATER QUALITY

This section of the Environmental Impact Report (EIR) includes an analysis of the potential impacts to hydrology and water quality that may result from the proposed Mission Bay Park Improvements Program (Program). This section also describes the associated existing conditions of the Mission Bay Park Improvement Zone (Improvement Zone) and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Program. The analysis in this section is based, in part, on the following reports:

- Preliminary Engineering Report Mission Bay Program EIR North Fiesta Island Component, prepared by Moffat and Nichol 2021 (Appendix B)
- Preliminary Engineering Report Mission Bay Program EIR Tecolote Creek Wetland Restoration and Fiesta Island Causeway, prepared by Moffat and Nichol, 2021, revised 2024 (Appendix C)
- Preliminary Engineering Report Cudahy Creek (Leisure Lagoon) Wetland Restoration, prepared by Rick Engineering, 2024 (Appendix D)
- Preliminary Engineering Report Mission Bay Program EIR Restoration of Shoreline, prepared by Moffat and Nichol, 2021 (Appendix E)
- Preliminary Engineering Report Mission Bay Improvement Zone Bicycle and Pedestrian Paths, May 31, 2024 (Appendix ~~F~~G)
- Mission Bay Hydrology Study, dated April 5, 2019, prepared by Moffat & Nichol (Appendix T)

4.8.1 EXISTING CONDITIONS

The environmental setting, which includes a discussion of the existing hydrological conditions, including watersheds, tides, flooding and drainage, and water quality, and groundwater, in the San Diego region and Improvement Zone, is included below.

4.8.1.1 Watersheds

A watershed is an area of land that channels rainfall and snowmelt to creeks, streams, and rivers, and eventually to outflow points such as reservoirs, bays, and the ocean (NOAA 2024). The Water Quality Control Plan for the San Diego Basin (Basin Plan) is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. The Basin Plan identifies watersheds using the terms hydrologic unit (HU), hydrologic area (HA), and hydraulic subareas (HSAs). HUs are the entire watershed of one or more streams; HAs are major tributaries and/or major groundwater basins within the HU; and HSAs are major subdivisions of HAs including both water-bearing and

non-water-bearing formations. The San Diego Region consists of 11 major HUs, 54 HAs, and 147 HSAs (RWQCB 2021).

The Program is located primarily in the Peñasquitos HU, and also intersects the Tecolote, Miramar, Fiesta Island, and Mission San Diego HAs, as shown in Figure 4.8-1. The Peñasquitos HU is a triangular-shaped area of about 170 square miles, extending from Poway on the east to La Jolla on the west. Mission Bay and the mouth of the San Diego River form a 4,000-acre aquatic park (RWQCB 2021).

4.8.1.2 Tides

Tidal amplitudes vary throughout the year as a result from the shift in alignment of the moon with respect to the earth and sun. Also affecting tidal amplitudes in a longer time scale are annual variations in solar declination, and an 18.6-year cycle of lunar nodes. Moreover, superimposed to the astronomical components of the recorded tides are other meteorological components, from short scale barometric pressure tides to interannual processes such as El Niño, and the long-term trend in eustatic Sea Level Rise.

Mission Bay constitutes a short and narrow basin, and as the tide passes its entrance, water levels in the Bay immediately follow water levels in the open ocean. As part of the Hydrology Study completed for the Program, tide gauges were installed to record water levels in Mission Bay with the aim of gaining insight on how tides propagate in and out of Mission Bay (Appendix T). Of particular interest were the potential tide-phase differences North and South of the Fiesta Island Causeway, which would be reflected as a time lag between High and Low tides at the Tecolote Creek and South Fiesta Island stations.

Table 4.8-1 lists modeled spring high and spring low tide elevations (i.e., the maximum and minimum water levels through the entire simulation) at each of the data extraction locations.

Table 4.8-1
Spring High and Low Water Elevations in Mission Bay

Station	Spring High Tide (Feet)	Spring Low Tide (Feet)	Spring Tidal Range (Feet)	Spring High Tide (Date & Time, UTC)	Spring Low Tide (Date & Time, UTC)
Offshore (Open Ocean)	4.38	−3.58	7.95	6/14/2011 20:37	6/15/2011 3:54
Entrance Channel	4.42	−3.63	8.05	6/14/2011 20:37	6/15/2011 4:00
North Fiesta Island	4.47	−3.72	8.19	6/14/2011 20:37	6/15/2011 4:12
Cudahy Creek	4.48	−3.74	8.21	6/14/2011 20:37	6/15/2011 4:12

Table 4.8-1
Spring High and Low Water Elevations in Mission Bay

Station	Spring High Tide (Feet)	Spring Low Tide (Feet)	Spring Tidal Range (Feet)	Spring High Tide (Date & Time, UTC)	Spring Low Tide (Date & Time, UTC)
Tecolote Creek	4.48	−3.74	8.22	6/14/2011 20:37	6/15/2011 4:12
South Fiesta Island	4.46	−3.69	8.15	6/14/2011 20:37	6/15/2011 4:12

Source: Appendix T.
Note: UTC = Coordinated Universal Time.

Similar to the rest of the daily high tides, spring highs occur simultaneously throughout the Bay. Based on simulation results, Table 4.8-2 provides the estimated mean higher high water (MHHW), mean lower low water (MLLW), and diurnal ranges for Mission Bay.

Table 4.8 -2
Estimated MHHW, MLLW, and Diurnal Range

Station	Mean Higher High Water (MHHW) (Feet)	Mean Lower Low Water (MLLW) (Feet)	Diurnal Range (Feet)
Offshore (Open Water)	3.36	−2.41	5.77
Entrance Channel	3.40	−2.44	5.83
North Fiesta Island	3.45	−2.46	5.91
Cudahy Creek	3.46	−2.48	5.94
Tecolote Creek	3.46	−2.48	5.94
South Fiesta Island	3.44	−2.46	5.90

Source: Appendix T.
Notes: MHHW = mean higher high water; MLLW = mean lower low water.

No lags were found between high and low tides at either side of the Fiesta Island Causeway and the difference between tidal amplitudes at these locations is negligible. Comparison of modeled water levels indicate that there is no tidal muting in Mission Bay; not only do tides in the Bay reach the same elevations as the open ocean tides, but a slight amplification of the tidal amplitudes occurs, which increase with increasing distance from the Entrance Channel.

4.8.1.3 Flooding and Drainage

The term "floodplain" refers to the area that experiences flooding during a high flow event. The floodplain includes both actively flowing areas as well as areas that are more ponded and not actively flowing. The "floodway" is the portion of the floodplain reserved to let the stronger-flowing floodwaters pass and not cause an unacceptable increase in flood elevations. A regulatory floodway is defined as the channel of a river or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height (FEMA 2024).

The Federal Emergency Management Agency (FEMA) is an agency of the U.S. Department of Homeland Security that is responsible for coordinating the federal government's response to disasters. Each water body studied by the FEMA is mapped on one or more Flood Insurance Rate Maps. Based on FEMA, portions of the Improvement Zone are within the open water or immediately adjacent to water are identified within special flood hazard areas, including Zones A, AE, and VE, as described below and shown in Figure 4.8-1, Hydrology (FEMA 2019). These special flood hazard areas are high risk areas.

- Zones A and AE are defined as areas subject to inundation by the 1% annual chance flood event (FEMA 2020a).
- Zone VE, also known as Coastal High Hazard Area, is defined as coastal areas with a 1% or greater annual chance of flood (FEMA 2025).

Other areas within the Improvement Zone are identified as Zone X, or low-risk areas (FEMA 2019). Zone X is defined as areas that would be inundated by a 500-year flood (0.2% chance of flooding in any given year) (FEMA 2020a).

Wetland and Water Quality Improvements Element

The water and immediate shoreline surrounding North Fiesta Island, Tecolote Creek and Fiesta Island Causeway, and Cudahy Creek are in the FEMA Flood Hazard Zone AE.

Restoration of Shoreline Element

The water and immediate shoreline surrounding the areas shoreline restoration projects are in the FEMA Flood Hazard Zone AE.

Upland Habitat and Preserve Expansion Element

The Fiesta Island Habitat Expansion/Preservation Areas are not within FEMA Flood Hazard zones; however, the Bay surrounding these areas is within Zone AE. The portion of the Sea World Drive/San Diego River Habitat Expansion/Preservation Areas bordering the San Diego River are within the FEMA Flood Hazard Zone AE: within a regulatory floodway.

Restoration of the Seawall Bulkhead Element

The proposed restoration of the seawall bulkhead areas is located within FEMA Flood Hazard Zone VE.

Bicycle and Pedestrian Improvements Element

Bicycle and pedestrian improvements for the Ocean Beach bike path are surrounded by areas in FEMA Flood Hazard Zone A and Zone AE within a regulatory floodway. Portions of the bicycle and pedestrian improvements for the Rose Creek bike path are within FEMA Flood Hazard Zone AE and Zone X. Bicycle and pedestrian improvements for the Fiesta Island Causeway are surrounded by areas in FEMA Flood Hazard Zone AE. The proposed Robb Field/Gateway connectivity improvements are not within or immediately surrounded by areas in FEMA Flood Hazard Zone.

Deferred Maintenance

Deferred Maintenance activities would occur throughout the Improvement Zone and would be located in FEMA Flood Hazard Zones A, AE, VE, or X.

Signage

Signage activities would occur throughout the Improvement Zone and would be located in FEMA Flood Hazard Zones A, AE, VE, or X.

4.8.1.4 Water Quality

Mission Bay is one of eight major receiving waters within the City of San Diego. According to the 2020–2022 California Integrated Report for impairments (Clean Water Act Section 303[d] List/305[b] Report), several portions of the Improvement Zone are placed on the 303(d) list as impaired (SWRCB 2022). Portions of Mission Bay listed for impairments are shown in Table 4.8-3. Water quality within Mission Bay generally is lower than that of the coastal ocean water due to the poor flushing characteristics of the Bay and the input of nutrient material from storm runoff (RWQCB 2021).

Table 4.8-3
Clean Water Act 303(d) List for Regional Board 9 – San Diego Region

Body Water Name	Body Water Type	Pollutant(s)	Source
Pacific Ocean Shoreline, Scripps HA, at Pacific Beach Drive, Pacific Beach	Coastal and Bay Shoreline	Trash	Unknown Source
Pacific Ocean Shoreline, Scripps HA, at Belmont Park at Mission Beach (near San Fernando Place)	Coastal and Bay Shoreline	Trash	Unknown Source
Pacific Ocean Shoreline, San Diego HU, at the San Diego Reiver outlet, at Dog Beach	Coastal and Bay Shoreline	Indicator Bacteria	Unknown Source
Pacific Ocean Shoreline, San Diego HU, at the Stub Jetty, south of the San Diego River outlet, near Cape May Avenue	Coastal and Bay Shoreline	Indicator Bacteria	Unknown Source
Pacific Ocean Shoreline, San Diego HU, at the Stub Jetty, south of the San Diego River outlet, near Cape May Avenue	Coastal and Bay Shoreline	Trash	Unknown Source
Mission Bay	Coastal and Bay Shoreline	Mercury	Unknown Source, Atmospheric Deposition
Mission Bay	Coastal and Bay Shoreline	PCBs (Polychlorinated biphenyls)	Unknown Source
Mission Bay Shoreline, at De Anza Cove	Coastal and Bay Shoreline	Indicator Bacteria	Unknown Source
Mission Bay Shoreline, at Campland	Coastal and Bay Shoreline	Indicator Bacteria	Unknown Source
Mission Bay Shoreline, at Fiesta Island northwest shore	Coastal and Bay Shoreline	Indicator Bacteria	Unknown Source
Mission Bay Shoreline, at Visitors Center	Coastal and Bay Shoreline	Indicator Bacteria	Unknown Source
Mission Bay Shoreline, at Leisure Lagoon	Coastal and Bay Shoreline	Indicator Bacteria	Unknown Source
Mission Bay Shoreline, at Tecolote Shores	Coastal and Bay Shoreline	Indicator Bacteria	Unknown Source
Mission Bay Shoreline, at Enchanted Cove	Coastal and Bay Shoreline	Trash	Unknown Source
Mission Bay Shoreline, at North	Coastal and Bay	Trash	Unknown Source

Table 4.8-3
Clean Water Act 303(d) List for Regional Board 9 – San Diego Region

Body Water Name	Body Water Type	Pollutant(s)	Source
Cove Beach at Vacation Isle	Shoreline		
Mission Bay Shoreline, at Fanuel Park	Coastal and Bay Shoreline	Indicator Bacteria	Unknown Source
Mission Bay Shoreline, at Bonita Cove (eastern shore)	Coastal and Bay Shoreline	Indicator Bacteria	Unknown Source
Mission Bay Shoreline, at Bonita Cove	Coastal and Bay Shoreline	Indicator Bacteria	Unknown Source
Mission Bay at Quivira Basin	Bay and Harbor	Copper	Unknown Source, Unknown Nonpoint Source, Unknown Point Source
Mission Bay (area at mouth of Tecolote Creek only)	Bay and Harbor	Eutrophic	Unknown Source
Mission Bay (area at mouth of Tecolote Creek only)	Bay and Harbor	Lead	Unknown Source
Mission Bay (area at mouth of Rose Creek only)	Bay and Harbor	Eutrophic	Unknown Source
Mission Bay (area at mouth of Rose Creek only)	Bay and Harbor	Lead	Unknown Source
San Diego River (Lower)	River and Stream	Benthic Community Effects	Unknown Source, Hydromodification, Illicit Connections/Illegal Hook-ups/Dry Weather Flows, Unknown Nonpoint Source, Unknown Point Source, Urban Runoff/Storm Sewers
San Diego River (Lower)	River and Stream	Bifenthrin	Unknown Source
San Diego River (Lower)	River and Stream	Chlordane	Unknown Source
San Diego River (Lower)	River and Stream	Chloride	Unknown Source
San Diego River (Lower)	River and Stream	Color	Unknown Source
San Diego River (Lower)	River and Stream	Cyfluthrin	Unknown Source
San Diego River (Lower)	River and Stream	Cypermethrin	Unknown Source

Table 4.8-3
Clean Water Act 303(d) List for Regional Board 9 – San Diego Region

Body Water Name	Body Water Type	Pollutant(s)	Source
San Diego River (Lower)	River and Stream	Indicator Bacteria	Unknown Source
San Diego River (Lower)	River and Stream	Nitrogen	Unknown Source
San Diego River (Lower)	River and Stream	Oxygen, Dissolved	Unknown Source
San Diego River (Lower)	River and Stream	Permethrin	Unknown Source
San Diego River (Lower)	River and Stream	Phosphorus	Unknown Source
San Diego River (Lower)	River and Stream	Pyrethroids	Unknown Source
San Diego River (Lower)	River and Stream	Total Dissolved Solids	Unknown Source
San Diego River (Lower)	River and Stream	Turbidity	Unknown Source
Tecolote Creek	River and Stream	Benthic Community Effects	Unknown Source, Hydromodification, Illicit Connections/Illegal Hook-ups/Dry Weather Flows, Unknown Point Source, Urban Runoff/Storm Sewers
Tecolote Creek	River and Stream	Bifenthrin	Unknown Source
Tecolote Creek	River and Stream	Cypermethrin	Unknown Source
Tecolote Creek	River and Stream	Diazinon	Unknown Source
Tecolote Creek	River and Stream	Nitrogen	Unknown Source
Tecolote Creek	River and Stream	Phosphorus	Unknown Source
Tecolote Creek	River and Stream	Selenium	Unknown Source, Natural Sources
Tecolote Creek	River and Stream	Toxicity	Unknown Source
Tecolote Creek	River and Stream	Turbidity	Unknown Source
Tecolote Creek	River and Stream	Indicator Bacteria	Unknown Source
Tecolote Creek	River and Stream	Cyfluthrin	Unknown Source
Tecolote Creek	River and Stream	Cyhalothrin, Lambda	Unknown Source
Tecolote Creek	River and Stream	Permethrin	Unknown Source
Tecolote Creek	River and Stream	Pyrethroids	Unknown Source
Tecolote Creek	River and Stream	pH	Unknown Source
Rose Creek	River and Stream	Benthic	

Table 4.8-3
Clean Water Act 303(d) List for Regional Board 9 – San Diego Region

Body Water Name	Body Water Type	Pollutant(s)	Source
		Community Effects	Unknown Source, Hydromodification, Illicit Connections/Illegal Hook-ups/Dry Weather Flows, Unknown Nonpoint Source, Unknown Point Source, Urban Runoff/Storm Sewers
Rose Creek	River and Stream	Bifenthrin	Unknown Source
Rose Creek	River and Stream	Cyfluthrin	Unknown Source
Rose Creek	River and Stream	Indicator Bacteria	Unknown Source
Rose Creek	River and Stream	Nitrogen	Unknown Source
Rose Creek	River and Stream	Phosphorus	Unknown Source
Rose Creek	River and Stream	Pyrethroids	Unknown Source
Rose Creek	River and Stream	Selenium	Unknown Source, Natural Sources
Rose Creek	River and Stream	Total Dissolved Solids	Unknown Source
Rose Creek	River and Stream	Toxicity	Unknown Source

Source: SWRCB 2022, 2024.

Beneficial uses form the cornerstone of water quality protection under the Basin Plan. Once beneficial uses are designated, appropriate water quality objectives can be established and programs that maintain or enhance water quality can be implemented to ensure the protection of beneficial uses (RWQCB 2021). Table 4.8-4 defines the beneficial uses designated for Misson Bay.

Table 4.8-4
Beneficial Uses in Mission Bay

Beneficial Use	Description
Industrial Service Supply	Includes uses of water for industrial activities that do not depend primarily on water quality including, but not limited to, mining, cooling water supply, hydraulic conveyance, gravel washing, fire protection, or oil well re-

Table 4.8-4
Beneficial Uses in Mission Bay

Beneficial Use	Description
	pressurization.
Contact Water Recreation	Includes uses of water for recreational activities involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, swimming, wading, water-skiing, skin and SCUBA diving, surfing, white water activities, fishing, or use of natural hot springs.
Non-contact Water Recreation	Includes the uses of water for recreational activities involving proximity to water, but not normally involving body contact with water, where ingestion of water is reasonably possible. These uses include, but are not limited to, picnicking, sunbathing, hiking, beachcombing, camping, boating, tidepool and marine life study, hunting, sightseeing, or aesthetic enjoyment in conjunction with the above activities.
Commercial and Sports Fishing	Includes the uses of water for commercial or recreational collection of fish, shellfish, or other organisms including, but not limited to, uses involving organisms intended for human consumption or bait purposes.
Estuarine Habitat	Includes uses of water that support estuarine ecosystems including, but not limited to, preservation or enhancement of estuarine habitats, vegetation, fish, shellfish, or wildlife (e.g., estuarine mammals, waterfowl, shorebirds).
Wildlife Habitat	Includes uses of water that support terrestrial ecosystems including, but not limited to, preservation and enhancement of terrestrial habitats, vegetation, wildlife (e.g., mammals, birds, reptiles, amphibians, invertebrates), or wildlife water and food sources.
Rare, Threatened, or Endangered Species	Includes uses of water that support habitats necessary, at least in part, for the survival and successful maintenance of plant or animal species established under state or federal law as rare, threatened or endangered.
Marine Habitat	Includes uses of water that support marine ecosystems including, but not limited to, preservation or enhancement of marine habitats, vegetation such as kelp, fish, shellfish, or wildlife (e.g., marine mammals, shorebirds).
Migration of Aquatic Organism	Includes uses of water that support habitats necessary for migration, acclimatization between fresh and salt water, or other temporary activities by aquatic organisms, such as anadromous fish.
Spawning, Reproduction, and/or Early Development	Includes uses of water that support high quality habitats suitable for reproduction, early development and sustenance of marine fish and/or cold freshwater fish.
Shellfish Harvesting	Includes uses of water that support habitats suitable for the collection of filter-feeding shellfish (e.g., clams, oysters and mussels) for human consumption, commercial, or sport purposes.

Source: RWQCB 2021.

4.8.1.5 Groundwater

The Improvement Zone is located adjacent to the Mission Valley Groundwater Basin (Basin No. 9-014) (DWR 2025b) but is otherwise not within an identified groundwater basin. Landward portions of the Improvement Zone would very likely have very shallow groundwater with poor water quality (brackish).

4.8.1.6 Dam Inundation Areas

Dam failure is the collapse or failure of an impoundment that causes significant downstream flooding. Flooding of the area below the dam may occur as the result of structural failure or overtopping of the dam. There are several dams within the San Diego Region and the southern portion of the Improvement Zone is located in the Lake Murray Dam and El Capitan Dam inundation areas (City of San Diego 2024e; DWR 2025a).

4.8.1.7 Tsunami and Seiche

A tsunami is a sea wave generated by a submarine earthquake, landslide, or volcanic action. A seiche is an earthquake-induced wave in a confined body of water, such as a lake, reservoir, or bay. An earthquake in the region could generate a seiche in Mission Bay. The Improvement Zone is within a tsunami inundation zone (DOC 2024a).

4.8.2 RELEVANT PLANS, POLICIES, AND ORDINANCES

Federal

Clean Water Act

The Clean Water Act (CWA) (33 USC Section 1251 et seq.) (1972) is the primary federal law that protects the nation's waters, including lakes, rivers, aquifers, and coastal areas. The CWA established basic guidelines for regulating discharges of pollutants into waters of the United States and requires that states adopt water quality standards to protect public health, enhance the quality of water resources, and ensure implementation of the CWA.

CWA Section 401 requires that any applicant for a federal permit to conduct any activity, including the construction or operation of a facility that may result in the discharge of any pollutant, must obtain certification from the state. CWA Section 402 established the National Pollutant Discharge Elimination System (NPDES) to regulate the discharge of pollutants from point sources, and Section 404 established a permit program to regulate the discharge of dredged material into waters of the United States. In California, the State Water Resources Control Board (SWRCB) and Regional Water Quality Control Boards (RWQCBs) administer the NPDES permitting programs and are responsible for developing waste discharge requirements. Each local RWQCB is responsible for

developing waste discharge requirements specific to its jurisdiction. General waste discharge requirements that may apply to components within the Improvement Zone include the SWRCB Construction General Permit, and the regional Municipal Separate Storm Sewer System (MS4) Permit administered by the San Diego RWQCB.

Under CWA Section 303(d), states, territories, and authorized tribes are required to develop lists of impaired waters that are too polluted or otherwise degraded to meet the water quality standards set by states, territories, or authorized tribes. The law requires that these jurisdictions establish priority rankings for waters on the lists and develop total maximum daily loads (TMDLs) for these waters. A total maximum daily load is a calculation of the maximum amount of a pollutant that a waterbody can receive and still safely meet water quality standards. The Program is located within the Mission Bay and San Diego River Watershed Management Areas (WMAs), and the Tecolote Creek and Scripps subwatersheds within the Mission Bay WMA and the San Diego River WMA are subject to bacteria TMDLs (fecal coliform and Enterococcus).

Executive Order 11988, Floodplain Management

The major requirements of this Executive Order are to avoid support of floodplain development, to prevent uneconomic, hazardous, or incompatible use of floodplains, to protect and preserve the natural and beneficial floodplain values, and to be consistent with the standards and criteria of the National Flood Insurance Program. The basic tools for regulating construction in potentially hazardous floodplain areas are local zoning techniques. Proper floodplain zoning can be beneficial in the preservation of open space, retention of floodplains as groundwater recharge areas, and in directing development to less flood-prone areas.

National Flood Insurance Program

The National Flood Insurance Program is a federal program enabling property owners in participating communities to purchase insurance protection against losses from flooding. In support of the National Flood Insurance Program, the FEMA identifies flood hazard areas throughout the United States and its territories by producing Flood Hazard Boundary Maps, Flood Insurance Rate Maps, and Flood Boundary & Floodway Maps. Several areas of flood hazards are commonly identified on these maps, such as Special Flood Hazard Areas (SFHAs). Development may take place within mapped SFHAs, provided that it complies with local floodplain management regulations, which must meet the minimum federal requirements.

The City is a participating community in the National Flood Insurance Program. Therefore, the City is responsible for adopting a floodplain management ordinance that meets certain minimum requirements intended to reduce future flood losses. The City has adopted Development Regulations for

SFHA in San Diego Municipal Code (SDMC) Sections 143.0145 and 143.0146. If proposed improvements are within one of the SFHA Zones, these regulations will apply.

State

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act established the principal California legal and regulatory framework for water quality control. The Porter-Cologne Water Quality Control Act is embodied in the California Water Code. The California Water Code authorizes SWRCB to implement the provisions of the federal CWA. The State of California is divided into nine regions governed by RWQCBs. The RWQCBs implement and enforce provisions of the California Water Code and the CWA under the oversight of SWRCB. The City is located within the purview of the San Diego RWQCB (Region 9). The Porter-Cologne Act also provides for the development and periodic review of Basin Plans that designate beneficial uses of California's major rivers and other surface waters and groundwater basins and establish water quality objectives for those waters.

NPDES Construction General Permit

SWRCB Order No. 2009-0009-DWQ, NPDES General Permit No. CAS000002 WDRs for Discharges of Stormwater Runoff Associated with Construction Activity (Construction General Permit) was adopted on September 2, 2009, and amended by Order No. 2010-0014-DWQ, Order No. 2012-0006-DWQ, and most recently Order No, 2022-0057-DWQ on September 8, 2022.

Construction activities exceeding one acre (or meeting other applicable criteria) are subject to pertinent requirements under the Construction General Permit. Specific conformance requirements include implementing a Stormwater Pollution Prevention Plan (SWPPP), an associated Construction Site Monitoring Program, employee training, and minimum Best Management Practices (BMPs), as well as a Rain Event Action Plan for applicable projects (e.g., those in Risk Categories 2 or 3). Under the Construction General Permit, project sites are designated as Risk Level 1 through 3 based on site-specific criteria (e.g., sediment erosion and receiving water risk), with Risk Level 3 sites requiring the most stringent controls. Based on the site-specific risk level designation, the SWPPP and related plans/efforts identify detailed measures to prevent and control the off-site discharge of pollutants in stormwater runoff. Depending on the risk level, these may include efforts such as minimizing/ stabilizing disturbed areas, mandatory use of technology-based action levels, effluent and receiving water monitoring/reporting, and advanced treatment systems. Specific pollution control measures require the use of best available technology economically achievable and/or best conventional pollutant control technology levels of treatment, with these requirements implemented through applicable BMPs.

Site-specific measures will vary with conditions such as risk level, proposed grading, and slope/soil characteristics, and detailed guidance for construction-related BMPs is provided in the permit and in related City standards.

NPDES Municipal Permit

The most current MS4 Permit for Region 9, Order No. R9-2013-0001, was adopted on May 8, 2013, by the San Diego RWQCB and became effective on June 27, 2013. This Order was amended by adoption of Order No. R9-2015-0001 on February 11, 2015, and adoption of Order No. R9 2015-0100 on November 18, 2015. This is an update to the 2007 MS4 Permit, Order No. R9-2007-0001. Updated City of San Diego Stormwater Standards (based on the CoPermittees' Model BMP Design Manual) were adopted on February 16, 2016. The program would be subject to the most current MS4 Permit requirements.

The MS4 Permit implements a regional strategy for water quality and related concerns and mandates a watershed-based approach that often encompasses multiple jurisdictions. The overall permit goals include: (1) providing a consistent set of requirements for all co-permittees and (2) allowing the co-permittees to focus their efforts and resources on achieving identified goals and improving water quality, rather than just completing individual actions (which may not adequately reflect identified goals). Under this approach, the co-permittees are tasked with prioritizing their individual water quality concerns, as well as providing implementation strategies and schedules to address those priorities. MS4 Permit conformance entails considerations such as receiving water limitations, waste load allocations, and numeric water quality based effluent limitations. Specific efforts to provide permit conformance and reduce runoff and pollutant discharges to the maximum extent practicable involve methods such as: (1) using jurisdictional planning efforts (e.g., discretionary general plan approvals) to provide water quality protection, (2) requiring coordination between individual jurisdictions to provide watershed-based water quality protection, (3) implementing appropriate BMPs, including low impact development measures, to avoid, minimize, and/or mitigate effects such as increased erosion and off-site sediment transport (sedimentation), hydromodification[1] and the discharge of pollutants in urban runoff, and (4) using appropriate monitoring/assessment, reporting, and enforcement efforts to ensure proper implementation, documentation, and (as appropriate) modification of permit requirements. The City has implemented a number of regulations to ensure conformance with these requirements, as outlined below under local standards.

[1] Hydromodification is generally defined in the Municipal Permit as the change in natural watershed hydrologic processes and runoff characteristics (interception, infiltration, and overland/groundwater flow) caused by urbanization or other land use changes that result in increased stream flows and sediment transport.

California Coastal Act

The California Coastal Act was passed in 1976 and guides how the land along the coast of California is developed, or protected from development. Pursuant to California Coastal Act Sections 30230, 30231 and 30233, the California Coastal Commission (CCC) requires that most development avoid and buffer riparian habitats and marine resources. Policies require the maintenance and restoration of the biological productivity and quality of coastal waters, streams, and wetlands.

California Coastal Act Section 30121 defines the term "wetland" as "lands within the coastal zone which may be covered periodically or permanently with shallow water and include saltwater marshes, freshwater marshes, open or closed brackish water marshes, swamps, mudflats, and fens" (California Public Resources Code Sections 3000–30900).

The CCC provides further guidance on analyzing wetlands and wetland impacts in the Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone (CCC 1994).

California Department of Fish and Game Code – Streambed Alteration Program

The California Department of Fish and Wildlife (CDFW) requires any entity to notify the CDFW prior to beginning any activity that may divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. A Streambed Alteration Agreement is required for any projects that substantially adversely affect fish and wildlife resources. The Streambed Alteration Agreement with the CDFW typically requires mitigation in the form of on-site, off-site, or in-lieu fee mitigation, or a combination of all three forms.

Local

San Diego Basin Plan

The Basin Plan is the Water Quality Control Plan for the San Diego Basin and contains the water quality objectives, policies, regulations, and implementation programs for the protection of surface and ground waters within the San Diego Region. The Basin Plan describes the beneficial uses that each water body supports and are the basis for San Diego Water Board regulatory actions. Examples of beneficial uses include drinking water supply, recreation, fishing, and protection of aquatic life. The Basin Plan is reviewed on a three-year cycle, during which new science, new water quality problems, and new or changed laws or regulatory approaches are considered. Based on regional priorities, the Basin Plans are amended to reflect specific changes and local concerns. The San Diego Regional Board's Basin Plan is designed to preserve and enhance water quality and protect the beneficial uses of all regional waters. Specifically, the Basin Plan: (1) designates beneficial uses for surface and ground waters; (2) sets narrative and numerical objectives that must be attained or

maintained to protect the designated beneficial uses and conform to the state's antidegradation policy; (3) describes implementation programs to protect the beneficial uses of all waters in the Region; and (4) describes surveillance and monitoring activities to evaluate the effectiveness of the Basin Plan [California Water Code Sections 13240–13244 and 13050(j)]. Additionally, the Basin Plan incorporates by reference all applicable State and Regional Board plans and policies.

City of San Diego Jurisdictional Runoff Management Plan

This plan describes how the City of San Diego plans to protect and improve the water quality of rivers, bays, and the ocean in the region in compliance with the RWQCB permits referenced above. The document describes how the City incorporates storm water BMPs into land use planning, development review and permitting, the City's capital improvement program project planning and design, and the execution of construction contracts.

Water Quality Improvement Plans

The MS4 Permit also requires development of Water Quality Improvement Plans (WQIPs) that guide the co-permittees' jurisdictional runoff management programs toward achieving improved water quality in MS4 discharges and receiving waters. The WQIPs further the CWA's objectives to protect, preserve, enhance, and restore the water quality and designated beneficial uses of waters of the state. The requirement sets forth a collaborative and adaptive planning and management process that identifies the highest-priority water quality conditions within a watershed management area and implements strategies through the jurisdictional runoff management programs of the respective jurisdictions.

The program area is located within the Mission Bay Watershed Management Area (WMA) and a small portion of the San Diego River WMA. The Mission Bay WMA drains a highly urbanized, 64-square-mile area of the San Diego Basin in the center of coastal San Diego County (Project Clean Water 2024a). The San Diego River WMA encompasses a land area of 434 square miles stretching from the central portion of the County to the community of Ocean Beach (Project Clean Water 2024b). The Mission Bay WQIP includes strategies that the City can implement to improve water quality within the watershed with the goal of meeting TMDL requirements during wet and dry weather. Development projects within the WMA would be required to comply with the City's Stormwater Standards Manual, which is consistent with the strategies of the WQIP.

Drainage Design Manual

SDMC Chapter 14, Article 2, Division 2 outlines Stormwater Runoff and Drainage Regulations, which apply to all development in the City, regardless of whether a development permit or other approval is required. In addition, drainage design policies and procedures are provided in the City's Drainage Design Manual (which is incorporated in the City's Land Development Manual as Appendix B). The

Drainage Design Manual provides a guide for designing drainage and drainage-related facilities for developments within the City.

Stormwater Standards Manual

Stormwater BMP standards for City projects are outlined in the City's Stormwater Standards Manual (City of San Diego 2024f). The Stormwater Standards Manual constitutes the City's implementation of the Regional MS4 Permit and Stormwater Management and Discharge Control Ordinance (SDMC Section 43.0301 et seq.). Specific requirements for implementing BMPs vary based on the project type and amount of impervious surface proposed.

The City's Stormwater Requirements Applicability Checklist (Form DS-560) is used to determine whether a project is a priority development project; a standard development project; or exempt from permanent, post-construction stormwater BMP requirements (City of San Diego 2024f). The Program includes priority development projects. Post-construction BMP requirements in the Stormwater Standards Manual and the Regional MS4 Permit apply to new development or significant redevelopment projects that exceed size thresholds and/or fit under specific use or location categories. The size threshold is typically the amount of impervious area added and/or replaced. Projects that are considered maintenance or otherwise not categorized as "new development projects" or "redevelopment projects" according to the Stormwater Standards Manual are not subject to Permanent Stormwater BMPs. New development that creates 10,000 square feet of impervious surfaces collectively over a site; or creates and/or replaces 5,000 square feet of impervious site on an existing site of 10,000 square feet or more of impervious surfaces; or new development or redevelopment of streets, roads, highways, freeways, and driveways;, or new development or redevelopment that discharges directly to an environmentally sensitive area are all considered to be a priority development project and subject to site design, source control and structural pollutant control BMPs requirements

City of San Diego Grading Ordinance

The City Grading Ordinance (SDMC Section 142.0101 et seq.) incorporates a number of requirements related to hydrology and water quality, including the BMPs necessary to control stormwater pollution from sources such as erosion/sedimentation and construction materials during project construction and operation. Specifically, these include elements related to slope design, erosion/sediment control, revegetation requirements, and material handling/control.

City of San Diego General Plan

The City General Plan addresses water quality concerns in the Public Facilities, Services, and Safety Element; and the Conservation Element, as summarized below. Consistency with the goals and

policies in the following elements can be found in Table 4.9-1 of Section 4.9, Land Use and Planning, of this EIR.

Public Facilities, Services, and Safety Element. This element includes a number of goals and policies related to the provision of adequate public facilities and services for existing and proposed development. For stormwater, these involve efforts to provide appropriately designed and sized infrastructure and ensure adequate conveyance capacity, protect water quality, and provide conformance with applicable regulatory standards (e.g., the NPDES) (City of San Diego 2024b).

Conservation Element. The Conservation Element provides a number of goals and policies related to preserving and protecting watersheds and natural drainage features, minimizing runoff and related pollutant generation during and after construction activities, and protecting drinking water resources (City of San Diego 2024b).

4.8.3 SIGNIFICANCE DETERMINATION

Thresholds used to evaluate potential impacts related to hydrology and water quality are based on applicable criteria in the California Environmental Quality Act Guidelines (CEQA) Appendix G and the City's CEQA Significance Determination Thresholds (2022a). The following issue questions are addressed in this section:

1. 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;
2. 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:
   - **a.** Result in substantial erosion or siltation on or off site;
   - **b.** Substantially increase the rate or amount of surface runoff in a manner which would result in flooding on or off site;
   - **c.** Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff;
   - **d.** Impede or redirect flood flows;
3. Would the project risk release of pollutants due to project inundation in flood hazard, tsunami, or seiche zones;

4. Would the project violate any water quality standards or waste discharge requirements or otherwise substantially degrade surface or ground water quality; or
5. Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

According to the City's Significance Determination Thresholds (City of San Diego 2022a), the assessment of hydrology is based on the following:

- Would the project result in a substantial increase in impervious surfaces and associated increased runoff?
- Would the project result in a substantial alteration to on- and off-site drainage patterns due to changes in runoff flow rates or volumes?

The City's Significance Determination Thresholds (City of San Diego 2022a) for the assessment of water quality is based on the following:

- Adherence to the City's Stormwater Standards.

Note that compliance with applicable City Water Quality Standards is assured through permit conditions provided by Land Development Review (LDR) Engineering.

4.8.4 IMPACTS ANALYSIS

Issue 1: 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 Improvement Zone is in an area of low elevation and contains primarily saline waters from the Pacific Ocean that is not located within an identified groundwater basin (DWR 2025b). As a result, there is no applicable groundwater management plan or Sustainable Groundwater Management Act (SGMA) requirements for any of the Program elements. The closest groundwater basin in the region that is subject to SGMA requirements is the San Pasqual Valley Groundwater Basin located approximately 25 miles northeast of the Improvement Zone. The groundwater in the Improvement Zone area is influenced more by tidal fluctuation than by freshwater recharge. Local groundwater supplies are limited by several factors, including little recharge due to sparse rainfall and brackish water quality. Although groundwater supplies are much less plentiful in San Diego County than elsewhere in California, pockets of undeveloped brackish – or saline – groundwater could help meet more of the region's future water demand.

Groundwater may be encountered during construction of components within certain elements. However, any dewatering activities would be temporary and limited to construction, and elements of the Program would ultimately improve hydrology and water quality within the Improvement Zone. Earthwork would occur during the dry season to the extent feasible. Additionally, components within each element would include the implementation of BMPs, such as spill containment, which would be included in a SWPPP or WPCP as required by regulation, as required under EP-WQ-1. Such BMPs would minimize the potential for groundwater contamination during construction. Further, the Program would include elements that would improve infiltration and groundwater recharge. Potential impacts to groundwater recharge are discussed for each element below.

Wetland and Water Quality Improvements Element

As part of this element, components would include improvements to existing and new wetland habitat. Non-native uplands would be transformed into salt marsh, open channels, and transitional wetland. Site excavation would mainly occur above the mean tide level, which is considered the groundwater level. However, there is potential that groundwater may be encountered during construction if excavation needs to occur below the mean tide level. However, as mentioned, BMPs would be implemented to minimize impacts during construction. Therefore, impacts of this element to groundwater would be **less than significant**. Further, wetland restoration increases natural filtration, which would improve groundwater recharge. Thus, the element would have a beneficial impact to groundwater upon completion of construction.

Restoration of Shoreline Element

The components in this element include shoreline stabilization, habitat enhancement, and improvement of public access. This element also includes establishment of salt marsh, which would improve infiltration, and addition of oyster habitat, which would improve filtration. These components also include pervious sand, rock, gravel, and permeable pavement. The pervious and permeable pavement would minimize impacts to groundwater recharge. Concrete pedestrian pathways would be realigned and newly constructed, which would increase impervious surfaces along the shoreline. While impervious surfaces would slightly increase, the new pathways would not substantially reduce groundwater recharge, and impacts would be **less than significant**.

Upland Habitat and Preserve Expansion Element

Components in this element include revegetation of existing sand berms and modification of dune habitat to create continuous habitat. Habitat modifications would also direct runoff into adjacent wetland areas to improved sediment capture and water infiltration. Restoration of Upland Habitats would remove non-native vegetation and establish native vegetation communities which would help

improve filtration of water, ultimately improving groundwater. Impacts of this element to groundwater recharge would be **less than significant** and potentially beneficial.

Bicycle and Pedestrian Improvements Element

Bicycle and pedestrian improvements would include improvements to pathways and construction of new pathways for additional connection of existing facilities. The new concrete asphalt pathways would increase impervious surfaces in some areas. In other areas, bicycle and pedestrian improvements would alter areas of existing impervious surface. The bicycle and pedestrian improvements area primarily in areas of existing disturbance and nearby existing development where storm drains collect runoff. Therefore, groundwater recharge would not be substantially impacted more than existing conditions and impacts would be **less than significant.**

Restoration of Seawall Bulkhead Element

Restoration of the seawall bulkhead would include replacement in-kind of the existing seawall bulkhead and access improvements. Replacement of the bulkhead would not impact the boardwalk, and impervious surfaces would not increase. However, access improvements would replace the existing access with either new stairs or ADA ramps and would include one new concrete driveway. The access improvements would increase impervious surface. However, this minor increase in impervious surface would not substantially alter groundwater recharge. Therefore, impacts to groundwater recharge would be **less than significant.**

Overall, the Program would not use groundwater and does not include groundwater extraction. Therefore, groundwater would not be depleted and there would be a **less than significant** impact on groundwater supplies.

Issue 2: 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:

a. Result in substantial erosion or siltation on or off site?

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

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

d. Impede or redirect flood flows?

One of the primary purposes of the Program is to address issues related to water quality and water circulation improvements in the Bay. To meet this purpose, the Program elements are designed to improve drainage and overall water quality within the Improvement Zone with consideration of existing conditions and anticipated future sea level rise conditions. Therefore, impacts of the Program are overall considered beneficial in relation to water quality.

Construction of all the Program elements would require heavy equipment and use of construction-related materials, such as concrete, cement, asphalt, petroleum, etc. These potentially harmful pollutants could be accidentally spilled and could potentially pollute adjacent waters in Mission Bay. Also, grading activities would temporarily increase erosion potential. However, potential pollutants and erosion generated during construction would be temporary and addressed through project-specific SWPPP, in accordance with the City's Stormwater Standards Manual and the City's Grading Ordinance. The SWPPP would include BMPs such as fiber rolls, silt curtains, gravel bags, spill prevention and control, stockpile management, and concrete washout management. Adherence to applicable requirements and implementation of the appropriate BMPs would ensure that siltation and pollutant discharge associated with construction activities would be minimized. Environmental Protocol EP-WQ-1 would be implemented as part of each improvement component, which outlines when a SWPPP would be required. Prior to construction, a Stormwater Applicability Checklist (DS-560) would be completed by the Project Engineer, to determine stormwater standard and requirements specifically applicable to each improvement component. For improvements that include permanent stormwater infrastructure or BMPs, a SWQMP may be required, and the DS-560 form shall be completed by the Project Engineer. Construction and permanent BMPs shall be in conformance with San Diego RWQCB standards and pursuant to Section 1001 of the "Whitebook." After construction, there would be no new long-term operational pollutants associated with each element. Rather, the Program would decrease erosion potential and improve overall filtration and water quality treatment of stormwater in Mission Bay, reducing impacts of existing pollutants.

As discussed in Section 4.8.1.3, flooding and drainage, a portion of the Improvement Zone is within Special Flood Hazard Area. Any project in a floodway is required by FEMA to conduct engineering analysis on the floodway and provide a No-rise Certification, indicating that the project would not increase flood heights (FEMA 2020b). Prior to construction, a No-rise Certification would be provided and supported by an engineering analysis to show that implementation of the Program would not increase base flood elevations in accordance with Environmental Protocol EP-HYD-1. If the engineering analysis shows the development would alter the floodway or floodplain boundaries of the Special Flood Hazard Area, a Conditional Letter of Map Revision from FEMA would be required prior to construction. All documentation and engineering calculations required by FEMA would be provided prior to construction. Additionally, all work within the floodplain would be reviewed by the Floodplain Manager at the Storm Water Department in accordance with Environmental Protocol EP-HYD-2.

Impacts of each element on drainage, associated erosion, runoff, stormwater capacity, and flooding are described as applicable below.

Wetland and Water Quality Improvements Element

This element would purposefully alter the existing drainage patterns by enhancing and creating additional wetlands to improve the water quality and establish wetland habitat in Mission Bay. The components of the element are primarily located in previously disturbed areas with pervious surfaces, including sand and vegetated areas, and a small amount of impervious surface area, including paved roads and pathways. This element would include grading and excavation of stream channels, and creation of transitional wetlands and marsh habitat through substantial earthmoving. Grading during construction would increase erosion temporarily, but upon completion of construction, tidal erosion potential would be decreased due to the channel stabilization and riprap revetment. As discussed above, each component of this element would comply with EP-WQ-1 which requires that prior to construction, a Stormwater Applicability Checklist (DS-560) would be completed, to determine stormwater standard and requirements specifically applicable to each improvement, to prevent or minimize potential for erosion or siltation during construction. If permanent stormwater infrastructure or BMPs are required, a Storm Water Quality Management Plan may be required, and the DS-560 form shall be completed. Otherwise, the components are not anticipated to be connected to any existing stormwater drainage systems, as these components are the final destination for upstream stormwater drainage.

The element includes the construction of bridges with reinforced concrete piles and replacement of existing paved roads with unpaved pedestrian pathways. However, this development would not substantially increase impervious surfaces as bridges and unpaved pathways would not preclude infiltration. Therefore, the element would not result in increased flooding or runoff. Rather, the element would drainage and filtration patterns due to the improvements to water flow each component would provide (discussed in more detail in the below paragraphs). These activities have the potential to impact flooding through changes in ground elevations and flow paths. However, restoration and enhancement of wetlands would not adversely impact flood levels as the wetlands would be more resilient to flooding than the existing conditions. As impacts would be beneficial to the drainage patterns of the Improvement Zone, impacts would be **less than significant.** Descriptions of the drainage for each component of the element are provided below.

North Fiesta Island Component

The topography of the surface of the entire component would be altered through grading and excavation to develop a wetland environment with low, middle, and high marsh, and channels cutting through to provide water flow and flushing. The wetland habitat creation would improve the

water quality in the open waters surrounding North Fiesta Island as runoff from the upland Fiesta Island would be directed into the wetland, which would capture suspended sediment and filtrate water. As such, the North Fiesta Island component would improve conditions related to erosion and siltation, and the rate of stormwater runoff off the site. Additionally, the North Fiesta Island component would not result in any additional runoff into stormwater drainage infrastructure in the Improvement Zone and would not impede or redirect flows.

Tecolote Creek and Fiesta Island Causeway Component

Tecolote Creek drains directly into Mission Bay. The Tecolote Creek and Fiesta Island Causeway component would include stormwater infrastructure features that would be required to be in accordance with the City's Drainage Design Manual. Grading of the site would be required to create a suitable mosaic of salt marsh habitat and to create the tidal connection under Fiesta Island Causeway. A hydrologic analysis was conducted to determine the drainage area and peak flows from the Tecolote Creek watershed (Appendix C). A hydraulic analysis was then conducted to determine the hydraulic characteristics of the proposed design of the Tecolote Creek and Fiesta Island Causeway component. The Tecolote Creek and Fiesta Island Causeway component allow for retention of freshwater and enhancement of marsh habitat, therefore improving conditions related to erosion and siltation by providing newly restored wetlands that can capture suspended sediment and contaminants as well as filtration of upland stormwater (Appendix C). The Tecolote Creek and Fiesta Island Causeway component would not result in any additional runoff into stormwater drainage infrastructure in the Improvement Zone and would not impede or redirect flows.

Cudahy Creek Component

Cudahy Creek drains directly into Mission Bay. The Cudahy Creek component includes new stormwater infrastructure features (e.g., the riprap revetment at the existing outfalls) in accordance with the City's Drainage Design Manual. A hydrologic analysis was conducted to determine the drainage area and peak flows from the Cudahy Creek outfall. A hydraulic analysis was then conducted to determine the hydraulic characteristics of the proposed design of the Cudahy Creek component (Appendix D). The Cudahy Creek component proposes low salt and mid salt marsh restoration area, subtidal channels, berm, oyster bags, and riprap revetment to provide water quality treatment of storm water and Bay water. As such, the Cudahy Creek component would improve conditions related to erosion and siltation, and the rate of runoff off the site. Additionally, the Cudahy Creek component would not result in any additional runoff into stormwater drainage infrastructure in the Improvement Zone and would not impede or redirect flows.

Restoration of Shoreline Element

This element includes modifications to the existing shorelines of Mission Bay, including beach nourishment, stabilization through revetment repair, sidewalk relocation and addition, and seawall extension. The components in the element are primarily located in disturbed areas with pervious surface area, including sand, and a small amount of impervious surface area, including existing paved pathways. The pathway relocation and addition would not substantially increase impervious surface and would not impact drainage patterns. Relocation of pathways would help protect infrastructure from being undermined by coastal erosion. Grading during construction would increase erosion temporarily, but upon completion of construction, erosion potential would be decreased compared to existing conditions due to stabilization and protection of the shorelines. Beach nourishment increases width of shorelines, which would provide protection from tidal erosion for multiple years. Stabilization would be accomplished through rock groins, riprap, and revetment repair (Appendix E). New pathways located parallel to proposed revetment would help stabilize the soil behind the revetment crest. Further, the revetment repair includes permeable pavements that will help improve drainage. The seawall extension would prevent erosion and flooding behind the seawall. As drainage patterns would be improved, impacts related to flooding and drainage would be **less than significant.**

Upland Habitat and Preserve Expansion Element

This element includes revegetation and modification of dune habitat in previously disturbed habitat. The components in this element are located in areas with permeable surfaces, including sand and vegetated area, and smaller areas impervious surfaces (paved roads and pathways). New unpaved trails would not increase impervious surface area to be more than existing conditions and abandonment of existing paved access and trails would increase pervious surface area. These modifications would improve drainage. Also, this element would direct runoff into adjacent wetland areas to improved sediment capture and water infiltration. Unlike other portions of the Improvement Zone, the upland habitats are less susceptible to coastal and tidal erosion from Mission Bay. Grading during construction would increase erosion temporarily, but upon completion of construction, tidal and wind erosion potential would be decreased compared to existing conditions due to sand replenishment and berm revegetation. Topographic variation and mounding would be created to avoid water ponding within dune areas. Also, non-native species eradication and native species revegetation would improve drainage and water flow in the upland habitats. As drainage patterns would be improved, impacts related to flooding and drainage would be **less than significant.**

Bicycle and Pedestrian Improvements Element

This element includes improvements to existing asphalt concrete pathways and construction of new ones. Construction of new pathways and widening of existing pathways would increase impervious surface area that could increase the rate of runoff. However, the new pathways would be located adjacent to areas of existing development and disturbance and would incorporate adjacent vegetation/landscaping as well as pervious shoulders consisting of decomposed granite to provide treatment of runoff. All improvements would be designed in accordance with applicable City Design Manual and a SWQMP that would be required. The element is in an urbanized location, where stormwater flows to existing stormwater drains along roadways. All development in the City is subject to drainage regulations identified in the SDMC, which requires that existing flows are maintained to ensure existing systems can handle flows efficiently. However, this element would include stormwater improvements (e.g., biofiltration basins and water quality treatment swaps (i.e., BMPs added to other existing areas of impervious surfaces) to modify existing systems to better accommodate any potential impacts related to water quality and flow (Appendix F). Since these improvements would be required to adhere to City design standards, development would not result in alterations to existing drainage patterns in a manner that would result in flooding or increased runoff. As the element would comply with City design standards related to new development and drainage, and USACE requirements related to development on the levee, impacts related to drainage would be **less than significant.**

Restoration of Seawall Bulkhead Element

This element is located between Mission Beach and Mission Bay, with recreational sand areas to the west and residential and commercial development to the east. The element is in an urbanized location, where stormwater flows to existing stormwater drains along roadways. Restoration of the seawall bulkhead would include the replacement in-kind of the existing seawall and would not increase impervious surface area of the boardwalk. However, extension of the seawall bulkhead would include a widening of the existing boardwalk and addition of a new vehicular driveway would increase impervious surface area to be more than existing conditions. All development in the City is subject to drainage regulations identified in the SDMC, which requires that existing flows are maintained to ensure existing systems can handle flows efficiently.

With adherence to the City's standards, this widening would not substantially impact existing flows or runoff. Further, restoration and extension of the seawall bulkhead would reduce flooding and erosion potential behind the seawall. Therefore, impacts to flooding and drainage patterns would be **less than significant.**

Issue 3: Would the project, in flood hazard, tsunami, or seiche zones, risk release of pollutants due to project inundation?

As discussed in Section 2.2.8, there is potential for tsunami inundation, seiche, and flooding in the Improvement Zone. The Program does not propose new buildings or similar development that would include the storage of hazardous materials, rather the Program includes improvements to existing structures; modifications to upland habitats, shorelines, and wetlands; and new pathways. Nonetheless, the Program would comply with applicable SDMC and FEMA regulations that require protection from flooding, including providing a No-Rise Certification and engineering analysis to show that implementation of the Program would not increase base flood elevations. All work in the floodplain would be reviewed by the Floodplain Manager in the City's Storm Water Department. In Mission Bay, the base flood elevation (BFE) is approximately 8 feet NAVD 88 or 6 feet NGVD 29 and along the shoreline of Mission Beach, the BFE is approximately 12 to 13 feet NGVD 29. Compliance with applicable flood regulations would minimize the risks of flood hazards and corresponding risk of release of pollutants due to inundation.

Hazardous materials use during construction would be controlled by adherence to construction BMPs in accordance with state and local construction stormwater requirements. Once construction is completed, none of the elements would include the storage or use of substantive quantities of hazardous materials that could be at risk of release. The significance of this impact for each element is discussed below.

Portions of each element are within dam inundation zones. However, dam failure is considered to be a low probability because the safety and integrity of dams are performed annually by the California Division of Safety of Dams. With annual evaluation of dam stability, continued compliance with State regulations would ensure risk associated with flooding due to catastrophic dam failure is considered minimal. In addition, as previously stated, the Program does not include the storage or use of substantive quantities of hazardous materials. Therefore, impacts associated with risk of pollutant release in the event of dam failure would be **less than significant**.

Wetland and Water Quality Improvements Element

The components in this element occur on Fiesta Island and on creek wetlands located along the shores of Mission Bay. As noted above and shown in Figure 4.8-1, these locations include areas within flood hazard zones While the components in this element have risk of inundation, wetland and water quality improvements are designed to account for flood events and provide flood mitigation.

Construction associated with this element primarily includes grading and excavation, and most activities would not include the storage of bulk quantities of hazardous material. Proposed bridges are

designed to account for the 100-year flood event and would either be pre-cast and delivered to site or concrete and poured in place. If the bridges are concrete and poured in place, then BMPs, to be described in a SWPPP as required by regulations, would be implemented to minimize impacts by potential pollutants from concrete washout. Further, wetland and water quality improvements would decrease the risk of flooding by improving inundation and draining processes within Mission Bay. Therefore, impacts to the risk of release of pollutants as a result on inundation would be **less than significant**.

Restoration of Shoreline Element

The components in this element are located along the shores of Mission Bay and are located within flood hazard areas and areas that currently experience varying risks of inundation from flood events. The Restoration of Shoreline Element would improve shoreline stability and elevation, which would help minimize the risk release of pollutants due to erosion. This element would improve hydraulic adequacy for projected sea level rise and flood events. New pathways and seawalls are proposed, and BMPs, to be described in a SWPPP or WPCP as required by regulations, would be implemented to minimize impacts by potential pollutants from concrete washout during construction. The seawall extension would also protect onshore areas by reflecting waves and reducing the potential for the risk of pollutants due to inundation. Therefore, impacts to the risk of release of pollutants as a result on inundation would be **less than significant**.

Upland Habitat and Preserve Expansion Element

The components in this element are located on Fiesta Island and between Mission Bay and San Diego River. The upland areas have less risk of inundation compared to other areas within the Improvement Zone but are still located adjacent to areas with flood risks. These locations include areas that are within flood hazard areas. This element is primarily limited to grading and revegetation. Further, the element would modify and enhance sand berms, which would help minimize impacts from flooding, such as erosion. There would not be a risk of pollutants due to inundation and impacts would be **less than significant**.

Bicycle and Pedestrian Improvements Element

The components in this element are located near the entrance to Fiesta Island, adjacent to the Rose Creek Inlet, and adjacent to the San Diego River. These locations include areas of flood hazards. To improve bicycle and pedestrian pathways, asphalt and cement concrete paths, retaining walls, and concrete barriers are proposed. BMPs, to be described in a SWPPP as required by regulations, would be implemented to minimize impacts by potential pollutants from concrete washout. The element includes the installation of fencing and railings, but there would not be an increased risk of pollutants from these components. Further, this element would include stormwater improvements

(e.g., biofiltration basins) that would help reduce the risk of flooding and inundation during operation of these components. Therefore, considering the characteristics of the proposed elements, impacts to the risk of release of pollutants as a result on inundation is **less than significant**.

Restoration of Seawall Bulkhead Element

This element is located between Mission Bay and the Pacific Ocean, with Flood Hazard Zone VE, a SFHA with BFEs or depth. The restoration of the seawall bulkhead would require replacement of the parapet wall, which would require cast-in-place concrete. BMPs, to be described in a SWPPP as required by regulations, would be implemented to minimize impacts by potential pollutants from concrete washout. Once constructed, the wall would help minimize potential risks of flooding in the adjacent residential and commercial areas, similar to existing conditions. The increased height of the seawall bulkhead by 6 inches in some areas would also reduce flooding impacts from projected sea level rise. This element would not include the storage of bulk quantities of hazardous material and there would not be a risk of pollutants due to inundation. Therefore, impacts to the risk of release of pollutants as a result on inundation would be **less than significant**.

Issue 4: Would the project violate any water quality standards or waste discharge requirements of otherwise substantially degrade surface or groundwater quality?

The Program would have the potential to result in new pollutant discharge to the already impaired waterbodies within the Improvement Zone. The most common pollutants within Mission Bay and along the Mission Beach shorelines include trash and indicator bacteria. The creeks that connect to Mission Bay and the adjacent San Diego River include a multitude of other impairments. However, the Program would not have the potential to discharge most of the pollutants identified for each impaired water body, such as nitrogen, chloride, lead, etc., and would therefore, not exacerbate the problems. As required by the City's Stormwater Standards Manual, the Program would implement low impact development requirements, including site design measures, source control BMPs, and on-site retention of stormwater runoff (City of San Diego 2024f). Further, adherence to applicable requirements and implementation of BMPs would minimize pollutant discharge associated with construction activities, such as sediment and trash. Upon completion of construction, the Program elements would improve water quality overall and will be one of many efforts the City undertakes to improve water quality and meet TMDL requirements within the WMAs. Impacts to water quality are described for each element below.

As previously discussed, the Program would not substantially increase impervious surfaces and would improve infiltration throughout the Improvement Zone. Therefore, stormwater flows and associated runoff would not increase. Nonetheless, regulatory requirements associated with

stormwater, such the NPDES permit and MS4 permit would be applicable. A SWPPP would be developed for the components in each element, as necessary. The Program would comply with the applicable stormwater requirements, including those identified in the Stormwater Standards Manual and SDMC, and there would be no violation with waste discharge requirements and water quality standards. Therefore, impacts would be **less than significant.**

Wetland and Water Quality Improvements Element

This element is designed to improve the water quality in Mission Bay. Non-native uplands and existing storm drain outfall locations would be transformed into a full range of marsh habitats, open channels, and transitional wetland. Based on the Hydrology Study, there is poor tidal circulation in the areas of Mission Bay that are east of Fiesta Island (Appendix T). Wetland improvements would improve circulation of tidal flows and filtration of storm water before entering Mission Bay. Water quality treatment is improved by marsh habitat and oyster habitat. The establishment of oyster beds would improve filtration of algae from the water and sequester pollutants. Salt marsh habitat would similarly improve natural filtration through the vegetation and capture suspended sediment. Enhanced berms would serve to contain water in the wetland areas to promote filtration through these habitats. Further, the design of the wetland projects within this element account for varying water levels resulting from tidal flows and time lags. Thus, this element would improve overall water quality. As impacts would be beneficial to water quality, impacts would be **less than significant.**

Restoration of Shoreline Element

This element includes modifications to the existing shorelines of Mission Bay, including the establishment of oyster habitat and salt march. The establishment of oyster beds would improve filtration of algae from the water and sequester pollutants. Salt marsh habitat would similarly improve natural filtration through the vegetation. Other activities within this element, such as beach nourishment, would cause a temporary increase in turbidity. However, impacts would be temporary during construction and minimized with the implementation of BMPs such as silt curtains. Long-term impacts of the element would be overall beneficial to water quality. Short-term and long-term impacts would be **less than significant.**

Upland Habitat and Preserve Expansion Element

This element includes revegetation and modification of dune habitat in previously disturbed habitat. Restoration of Upland Habitats would remove non-native vegetation and establish native vegetation communities which could improve natural filtration through the native vegetation. The element may increase erosion during construction which could cause increased polluted runoff, but these impacts would be temporary. Also, implementation of a SWPPP or WPCP and associated BMPs would

minimize impacts to water quality of waterbodies adjacent to the upland habitats. With adherence to City requirements, impacts would be **less than significant.**

Bicycle and Pedestrian Improvements Element

This element includes improvements to existing asphalt concrete pathways and construction of new pathways adjacent to waterways. Most of the components in this element would not discharge directly to a waterbody and only one of the components in this element would have the potential to discharge water into an Environmental Sensitive Area. All components in this element would adhere to the City of San Diego's Storm Water Standards, including structural pollutant control requirements and BMP requirements, as applicable. In compliance with City requirements, biofiltration basins would be constructed where necessary, to improve stormwater treatment and provide water quality credits to offset impacts. Since these improvements would be required to adhere to City design standards and stormwater requirements, development would not result in increased pollutant discharges through the addition of features such as biofiltration basins and water quality treatment swaps. Rather, there would be a net water quality benefit as a result of the element. Therefore, impacts related to water quality would be **less than significant**.

Restoration of Seawall Bulkhead Element

This element is upland and would not have direct interaction with Mission Bay or Mission Beach waters. The element would still comply with SWPPP standards and BMP requirements to minimize potential temporary impacts to water quality during construction. There would be no negative long-term impacts to water quality as a result of this element. Rather, restoration and extension of the seawall could help prevent pollutant runoff from the residential and commercial development to the east from draining towards the Pacific Ocean, or Mission Beach shoreline. Impacts to water quality would be **less than significant.**

Issue 5: Would the project conflict with or obstruct implementation of a water quality control plan or sustainable groundwater management plan?

As discussed above, all elements of the Program would comply with current stormwater regulatory requirements as applicable and would be subject to the City's drainage regulations identified in the SDMC and Stormwater Standards Manual. These plans and regulations require that all development be conducted to prevent erosion and stop sediment and pollutants from draining off site to the extent feasible. Also, the Program would not conflict with or obstruct any groundwater management plans due to the fact that the Improvement Zone does not overlie a groundwater basin that has a sustainable groundwater management plan. Therefore, due to the adherence to local and state storm water regulatory requirements, implementation of the Program would not conflict with or obstruct the

Water Quality Control Plan for the San Diego Basin. As a result, impacts would be **less than significant**.

4.8.5 MITIGATION FRAMEWORK

Impacts associated with hydrology and water quality would be less than significant. No mitigation is required or proposed.

4.8.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Issue 1: Groundwater

Impacts to groundwater supplies would be less than significant, and no mitigation is required.

Issue 2: Drainage

Impacts associated with flooding and hydromodification would be less than significant without mitigation.

Issue 3: Risk of Pollutants from Inundation

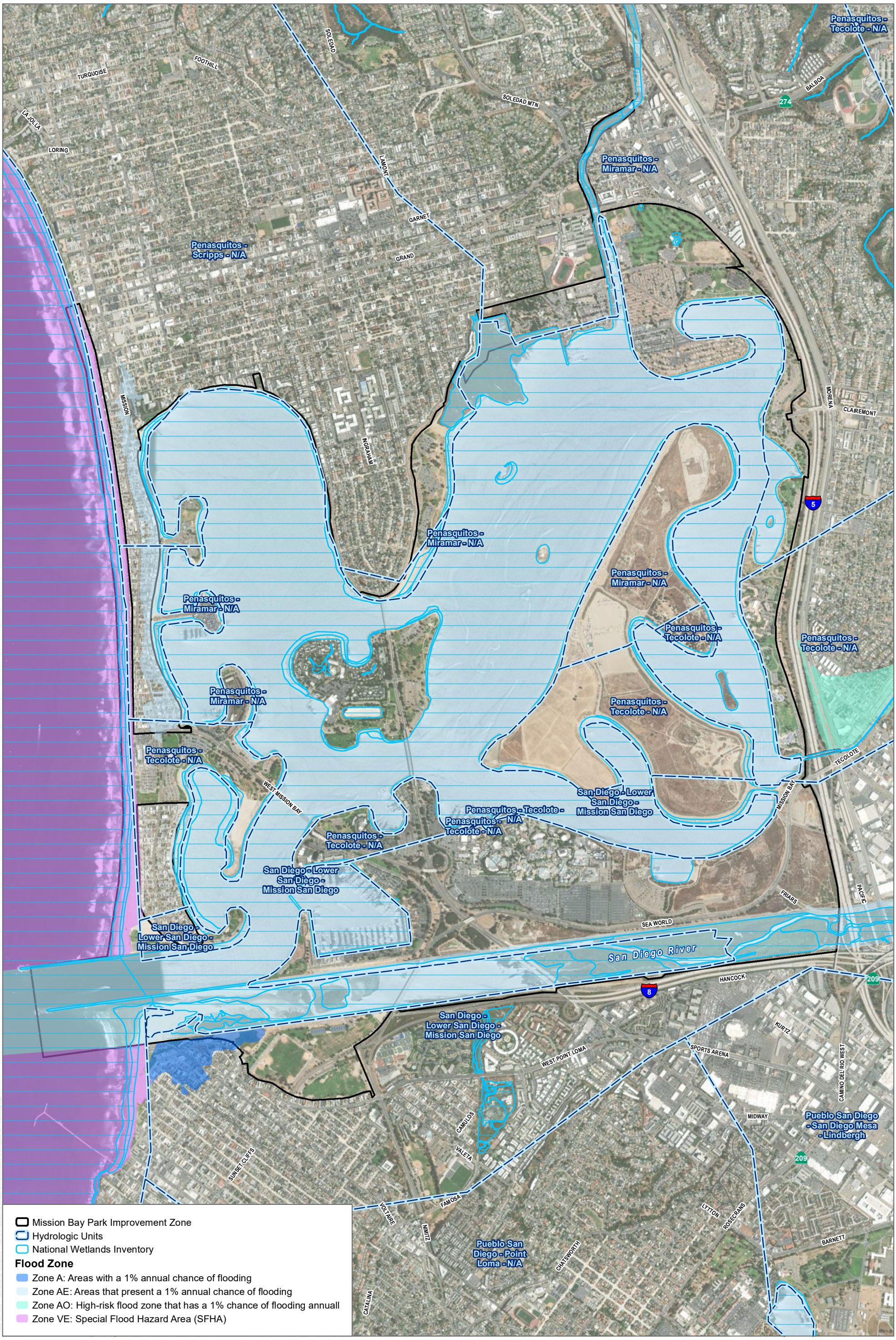
Impacts associated with the release of pollutants from inundation would be less than significant without mitigation.

Issue 4: Water Quality Standards

Impacts to water quality would be less than significant without mitigation.

Issue 5: Water Quality Plans

Impacts would be less than significant without mitigation.



SOURCE: SANGIS 2023; City of San Diego 2018

DUDEK

0 900 1,800 Feet

FIGURE 4.8-1

Hydrology

Mission Bay Park Improvements Program EIR

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4.9 LAND USE AND PLANNING

This section describes the existing land use and planning conditions of the Mission Bay Park Improvements Program (Program) site and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to the implementation of the proposed Program.

4.9.1 EXISTING CONDITIONS

The Mission Bay Park Improvement Zone (Improvement Zone) provides for regional recreation and habitat conservation, with small Bay-related commercial uses. The Improvement Zone is predominantly used for public parks, open space, and recreation. Other land uses surrounding the Bay include residential units, commercial employment, retail and services, and schools.

4.9.2 REGULATORY SETTING

4.9.2.1 Federal

Federal Aviation Regulations

The Federal Aviation Regulations are rules prescribed by the Federal Aviation Administration governing all aviation activities in the United States. The Federal Aviation Regulations are part of Title 14 of the Code of Federal Regulations. A variety of activities are regulated, such as aircraft design and maintenance, airline flights, pilot training, hot-air ballooning, commercial space, Unmanned Aircraft Systems, and kite flying. The rules are designed to promote safe aviation, protect pilots, flight attendants, passengers, and the general public from unnecessary risk.

Title 33 Navigation and Navigable Waters

Title 33 of the Code of Federal Regulations contains federal laws and regulations pertaining to navigation, flood control, and water resources for navigable waters in the United States. It contains information on aquatic plant control, drinking water, dredging, dumping, wreck removal, and Federal involvement in the maintenance, engineering and flood control of levees, rivers, lakes, dams, canals, and seaways. Title 33, Chapter II, Part 322 requires a Department of Army permit for structures and/or work in or affecting navigable waters of the United States.

United States Army Corps of Engineers Section 408 Program

The U.S. Army Corps of Engineers (USACE) provides oversight and has regulations on levees. The USACE Section 408 program allows another entity, such as a local government organization, to alter or impact a USACE project, such as a levee. Most federally constructed public works projects are

turned over to a non-federal project sponsor for operation and maintenance. Section 408 Permission requires the applicant seeking permission to identify and connect with a Non-Federal Sponsor and explain the alteration to them. The applicant will then work with the Non-Federal Sponsor to prepare the permission application for submission to the USACE for review and approval. Once the Corps approves the modification/alteration, permission will be issued to that Non-Federal Sponsor, who in turn would issue their own permit to the Applicant.

4.9.2.2 State

California Coastal Act

The California Coastal Commission (CCC) was established by voter initiative in 1972 and later made permanent by the Legislature through the adoption of the California Coastal Act (CCA) in 1976 (California Public Resources Code Section 30000 et seq.). In partnership with coastal cities and counties, the CCC plans and regulates coastal development, including construction of buildings, land divisions, changes in the use of the intensity of land, and public access to the coast, in the coastal zone. Under the CCA, cities and counties are required to prepare Local Coastal Programs (LCPs) to obtain authority to issue coastal development permits (CDPs) for projects within their jurisdiction. LCPs consist of Land Use Plans (LUPs) and Implementation Plans and conform to the policies of the CCA. The CCC is responsible for issuing CDPs until a local government has an LCP certified by the CCC.

Landscaping and Lighting Act

The Landscaping and Lighting Act of 1972 allows local government agencies such as counties, cities, and special districts to acquire land for parks and open space. A local government may use the assessments to pay for improvements and maintenance in these areas. In addition to local government agencies, community service districts, park and recreation districts, and water districts may provide park and recreation facilities.

4.9.2.3 Local Plans and Regulations

City of San Diego General Plan

The City of San Diego's General Plan was unanimously adopted by the San Diego City Council on March 10, 2008, and then amended in 2010, 2012, 2021, and 2024. The General Plan builds upon the goals and strategies of the former 1979 General Plan. In addition, it offers new policy direction in the areas of urban form, neighborhood character, historic preservation, public facilities, recreation, conservation, mobility, housing affordability, economic prosperity, and equitable development. The General Plan contains 11 elements that provide a comprehensive "blueprint" for the City's growth over the next 20 years (City of San Diego 2024b). The environmental goals most relevant to the Program

are found in the following elements: Land Use and Community Planning, Mobility, Urban Design, Public Facilities, Services, and Safety, Conservation, Recreation, Noise, and Environmental Justice, as described in the following paragraphs.

Land Use and Community Planning Element

The purpose of this element is to guide future growth and development into a sustainable City-wide development pattern while maintaining or enhancing the quality of life in the City's communities (City of San Diego 2024b). The Land Use and Community Planning Element addresses land use issues that apply to the City as a whole. The community planning program is the mechanism to refine City-wide policies, designate land uses, and make additional site-specific recommendations as needed. The element establishes the structure to respect the diversity of each community and includes policy direction to govern the preparation of community plans (CPs). It also provides policy direction in areas including zoning and policy consistency, the plan amendment process, coastal planning, airport land use compatibility planning, annexation policies, balanced communities, equitable development, and environmental justice.

The Mission Bay Park Improvement Zone is identified as Park, Open Space, & Recreation land use designation in the City of San Diego General Plan (City of San Diego 2024b). This land use designation for Park, Open Space, & Recreation includes four recommended Community Plan Designations, including Open Space, Population-based Parks, Resource-based Parks, and Private/Commercial Recreation. The Open Space designation is intended for preservation of land that has distinctive scenic, natural, or cultural features; that contributes to community character and form; or that contains environmentally sensitive resources. In addition, it applies to land or water areas that are undeveloped, generally free from development, or developed with very low-intensity uses that respect natural environmental characteristics and are compatible with the open space use. The Open Space designation may have utility for: primarily passive park and recreation use; conservation of land, water, or other natural resources; historic or scenic purposes; visual relief; or landform preservation. The Population-based Parks designation is intended to provide areas designated for passive and/or active recreational uses, such as community parks and neighborhood parks. It allows for facilities and services to meet the recreational needs of the community as defined by the CP. The Resource-based Parks designation is intended to provide recreational parks which are to be located at, or centered on, notable natural or man-made features (beaches, canyons, habitat systems, lakes, historic sites, and cultural facilities) and are intended to serve the citywide population as well as visitors. The Private/Commercial Recreation designation is intended to provide private recreational areas or commercial recreation areas that do not meet the definition of population-based or resource-based parks, but that still provide recreational opportunities.

The Improvement Zone includes zoning for the following:

- Residential-Single Unit (RS-1-7 and RS-1-1)
- Residential-Multiple Unit (RM-4-10, RM-2-4, and RM-1-1)
- Mission Beach Planned District Residential-Single Unit (MBPD-R-S)
- Open Space (OP-1-1)

Surrounding land uses in the City of San Diego General Plan include Residential, Institutional & Public and Semi-Public Facilities, Multiple Use, and Commercial Employment, Retail, & Services.

Mobility Element

The Mobility Element (City of San Diego 2024b) addresses the necessary components of a balanced and efficient transportation network, including regional cooperation, congestion management strategies, and transportation choices. In keeping with the City of Villages strategy, this element contains goals and policies to target growth into mixed-use villages that are pedestrian-friendly and linked to the transit system. Tools or strategies such as pedestrian improvements and traffic calming measures are illustrated to help create a vision for smart growth and walkable communities. The Mobility Element also contains policies to encourage the development and use of alternative transportation modes such as walking, bicycling, and transit.

Urban Design Element

"Urban design" describes the physical features that define the character or image of a street, neighborhood, community, or the City as a whole. Urban design provides the visual and sensory relationship between people and the built and natural environments. The built environment includes buildings and streets, and the natural environment includes features such as shorelines, canyons, mesas, and parks as they shape and are incorporated into the urban framework. City-wide urban design recommendations are provided in this element to ensure that the built environment continues to contribute to the qualities that distinguish the City as a unique living environment (City of San Diego 2024b).

Public Facilities, Services, and Safety Element

The purpose of this element is to provide the public facilities and services needed to serve the people that live in and visit San Diego. As such, this element includes goals and policies related to the provision of adequate public facilities and services for existing and proposed development.

Conservation Element

The purpose of the Conservation Element is to provide for the long-term conservation and sustainable management of the rich natural resources that help define the City's identity, contribute to the economy, and improve its quality of life (City of San Diego 2024b). The Conservation Element contains policies to guide the conservation of the resources that are fundamental components of the City's environment, help define the City's identity, and are relied upon for continued economic prosperity.

Recreation Element

The City has over 38,930 acres of park and open space lands that offer a diverse range of recreational opportunities. The Recreation Element contains goals and policies to address the challenges the City faces to preserve, protect, develop, operate, maintain, and enhance public recreation opportunities and facilities throughout the City (City of San Diego 2024b). The purpose of the element is to help manage the increasing demand on existing/remaining usable park and recreation resources/facilities, develop open space lands and resource-based parks for population-based recreational purposes, ensure the distribution and access to parks is achieved equally Citywide recognizing the unique differences among communities, and achieve livable neighborhoods and communities.

Noise Element

The purpose of the Noise Element is to protect people living and working in the City from excessive noise. The Noise Element provides goals and policies to guide compatible land uses and incorporates noise attenuation measures for new uses to protect people living and working in the City from an excessive noise environment (City of San Diego 2024b). It also establishes noise land use compatibility guidelines, as discussed in Section 4.10, Noise, of this Environmental Impact Report (EIR).

Environmental Justice Element

The purpose of the Environmental Justice Element is to identify and reduce unique and compounded health risks, increase community assets, and improve overall health outcomes. This element aims to achieve this purpose by reducing pollution exposure and improving air quality, and promoting public facilities and physical activity.

City of San Diego Municipal Code

City of San Diego Land Development Code Regulations

The City's Land Development Code (LDC) consists of Chapters 11 through 14 and a portion of Chapter 15 of the City's Municipal Code. The LDC contains rules and procedures for the development and use of property, including zoning, subdivisions, and other related land use activities. The LDC also

sets forth the procedures and regulations used in applying regulations related to land use in the City. The LDC is updated on an annual basis to ensure responsiveness to address the City's changing land use areas (City of San Diego 2021b). Chapter 14 of the LDC includes regulations pertaining to buildings, electrical/plumbing/mechanical, signage, grading, stormwater runoff and drainage, fencing, parking, landscaping, and public facilities regulations. In addition, Chapter 14 provides procedures to review LUPs, zoning actions, maps, and permit applications.

Land Development Manual

The City's Land Development Manual supplements the LDC and provides established and adopted submittal requirements, review procedures, and standards and guidelines for development.

Environmentally Sensitive Lands Regulations

The Environmentally Sensitive Lands (ESL) regulations of the City's LDC are intended to ensure the protection, preservation, and, where damaged, restoration of the environmentally sensitive lands of San Diego and the viability of the species supported by those lands. These regulations are intended to assure that development, including, but not limited to coastal development in the Coastal Overlay Zone, occurs in a manner that protects the overall quality of the resources and the natural and topographic character of the area, encourages a sensitive form of development, retains biodiversity and interconnected habitats, maximizes physical and visual public access to and along the shoreline, and reduces hazards due to flooding in specific areas while minimizing the need for construction of flood control facilities. These regulations are intended to protect the public health, safety, and welfare while employing regulations that are consistent with sound resource conservation principles and the rights of private property owners (City of San Diego 2021c). These regulations and accompanying guidelines for biological resources, steep hillsides, Special Flood Hazard Areas, and coastal bluffs and beaches serve as standards for the determination of impacts and mitigation under the California Environmental Quality Act (CEQA) Statute and Guidelines and the CCA. Development on a site containing ESL requires a Site Development Permit in accordance with LDC Section 126.0502.

Historical Resources Regulations

The City's Historical Resources regulations (Section 143.0213[a] of the LDC) apply when historical resources are present. The purpose of these regulations is to protect, preserve, and where damaged, restore the historical resources of San Diego (City's Municipal Code, Section 143.0201). Refer to Section 4.6.2, Local, for a discussion of the Historical Resources regulations.

San Diego County Multiple Species Conservation Program

The City is a participant in the regional County San Diego Multiple Species Conservation Program (MSCP), a cooperative federal, state, and local environmental conservation program aimed at preserving San Diego's unique native plants and animals (covered species) comprehensive, regional long-term habitat conservation program designed to provide permit issuance authority for take of covered species to the local regulatory agencies. The MSCP Subarea Plan (SAP) addresses habitat and species conservation within approximately 900 square miles in the southwestern portion of San Diego County (City of San Diego 1997). It serves as an approved habitat conservation plan pursuant to an approved Natural Communities Conservation Plan in accordance with the state Natural Communities Conservation Planning Act (County of San Diego 1998). The plan's boundaries extend over multiple jurisdictions and environments, including regional watersheds and migratory wildlife corridors. The plan also protects the region's diverse native plant and animal species, including those that are threatened and endangered. The MSCP SAP also provides provisions and regulations that accommodate future growth and streamline building regulations while protecting natural resources in the region.

The MSCP SAP identifies 85 plants and animals to be "covered" under the plan (termed Covered Species). Many of these Covered Species are subject to one or more protective designations under state and/or federal law and some are endemic to the County of San Diego. The MSCP SAP seeks to provide adequate habitat in the preserve to maintain ecosystem functions and persistence of extant populations of the 85 Covered Species while also allowing participating landowners "take" of Covered Species on lands located outside of the preserve. The purpose of the MSCP SAP is to address species conservation on a regional level and thereby avoid component-by-component biological mitigation, which tends to fragment habitat.

Local Plans

City of San Diego Mission Bay Park Master Plan

The Improvement Zone is within Mission Bay Park, which is a Community Planning Area in the City of San Diego. The Mission Bay Park Master Plan (MBPMP) was adopted by the City of San Diego City Council in August 1994, amended in November 2021 with the Fiesta Island Amendment, and most recently amended in May 2024 with the De Anza Natural Amendment. The MBPMP serves as the guiding planning policy document for all of Mission Bay Park, and its fundamental goal is to identify new recreation demands and plan for the continuing development of the Park that will sustain the diversity and quality of recreation and protect and enhance the Bay's environmental resources for future generations. The MBPMP outlines goals and objectives to support a balanced management of the Park's land and water resources with public recreation and the operation of economically successful

commercial leisure businesses. Goals and objectives of the MBPMP cover land and water use, environment, access and circulation, economics, and aesthetics and design (City of San Diego 2024a).

The MBPMP, which sets forth the vision for the use and development of Mission Bay Park, identifies the proposed Rose Creek Bike Path improvements as a multi-use path. The MBPMP does not map, establish land use designations, nor identify specific uses for the areas where the proposed Ocean Beach Bike Path improvements, Fiesta Island Causeway Bike Path improvements, are proposed. The MBPMP designates the areas where shoreline restoration would occur, Ventura Cove, Bonita Cove, Bahia Point, West Sail Bay, Crown Point, Vacation Island NE, NW, and SW), as Open Beach. In addition, Ventura Cove Park and Vacation Island SW are also designated as bulkhead/rip rap. Bahia Point, Crown Point, and Vacation Island NE are designated as beach with bulkhead. The MBPMP, which includes the adopted Fiesta Island Amendment from November 2021, designates the eastern side of the North Subarea of Fiesta Island as new wetlands and the western side as an improved habitat preserve area for the California Least Tern. The MBPMP designates the area where the wetland improvements would take place at Cudahy Creek and Tecolote Creek and Fiesta Island Causeway as wetland habitats or proposed wetland areas. The MBPMP, including the adopted 2021 Fiesta Island Amendment, designates the southern subarea of Fiesta Island (Site No. 1 – Fiesta Island South) as a fenced off-leash dog area, coastal landscape (natural recreation), beach, and the westernmost portion of this area as least tern preserves. The MBPMP designates the area near youth camping (Site No. 3 – Fiesta Island Near Youth Camping) as lease areas and habitat preserves. The MBPMP designates the north central subarea of Fiesta Island (Site No. 4 – Fiesta Island North Central) as sand management, habitat preserves, and coastal landscape. The MBPMP designates the west area of the northern subarea of Fiesta Island as the least tern nesting area that is closed year-round (Site No. 5 – Fiesta Island Least Tern Preserve Area). The MBPMP designates the Improvement Zone that is south of South Shores and along Sea World Drive (Site No. 1a – Cloverleaf) as Coastal Landscape and Upland Preserve. The MBPMP designates the Improvement Zone bordered to the north by Sea World Drive, to the east by Friars Road, and to the south by the Old Sea World Drive access road/trail and the rock-armored San Diego Riverbank (Site No. 3c – Triangle Restoration Area) as Coastal Landscape. The MBPMP designates the Improvement Zone that is bordered by Sea World Drive to the south and east and Mission Bay to the north and west (Site No. 4d – South Shores East Area) as Regional Parkland, and more specifically, a public amphitheater and promenade.

Further, although not certified by the CCC, the MBPMP serves as the LCP for this area of the City. The CCA established a Coastal Zone boundary and mandated that all jurisdictions within that boundary prepare an LCP. The entire Improvement Zone is within the Coastal Zone. The MBPMP is responsible for including planning and development standards to protect, preserve, and enhance California's coastal resources. The MBPMP incorporates coastal issues that have been identified by and for the community and develops policies and recommendations to address those issues (City of San Diego

2024a). Program consistency with applicable goals and policies of the MBPMP is presented in Table 4.9-1, Local Coastal Plan/California Coastal Act Consistency, in Section 4.9.4, Impacts Analysis.

Mission Bay Park Natural Resource Management Plan

The Mission Bay Park Natural Resource Management Plan is an appendix of the MBPMP. The intent of the Natural Resources Management Plan is that no net reduction of wildlife habitat is allowed and that the overall quality of habitat will be improved.

City of San Diego Climate Action Plan

The City of San Diego Climate Action Plan (CAP) was unanimously approved by the City Council and signed into law in 2022 (City of San Diego 2022b). The CAP identifies six strategies and associated actions to ensure that the City will achieve the specific emission reduction goals set forth in the CAP. The CAP has Consistency Regulations that ensure all new development is consistent with the CAP. Pursuant to CEQA Guidelines Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative greenhouse gas (GHG) emissions effect may be determined not to be cumulatively considerable if it complies with the requirements of the CAP.

Climate Resilient SD

The Climate Resilient SD Plan is the City's first-ever climate change adaptation and resiliency plan. It builds upon the City's CAP, providing strategies to be better prepared to respond to and recover from climate change events, including extreme heat, sea level rise, wildfires, flooding, and drought. It includes five main goals which are connected and informed communities, resilient and equitable city, protection of historical and tribal cultural resources, thriving natural environments, and maintenance of critical City infrastructure (City of San Diego 2024g).

City of San Diego Pacific Beach Community Plan and Local Coastal Program Land Use Plan

The vision of the Pacific Beach Community Plan and Local Coastal Program (Pacific Beach CP/LCP) LUP is to reconcile the duality of its roles as both a community of visitors and residents. The Pacific Beach CP/LCP includes goals, policies, and recommended actions to support this vision. The Pacific Beach CP/LCP aims to minimize traffic through the increased provision of convenient and affordable public transit, concentrate new development along and around Garnet Avenue and Mission Boulevard, and visitor-serving commercial uses will predominate along Mission Boulevard, while the remainder of the community's commercial area will be oriented towards resident-serving uses (City of San Diego 2019b).

The Pacific Beach CP/LCP LUP is applicable to the Rose Creek bicycle path improvements and the shoreline restoration at Crown Point that would occur within the boundaries of the Pacific Beach CP/LCP LUP.

City of San Diego Mission Beach Precise Plan and Local Coastal Program Addendum

The City of San Diego Mission Beach Precise Plan and Local Coastal Program Addendum (Mission Beach PP and LCPA) is a comprehensive guide toward the maintenance and future development of Mission Beach, offering 150 goals and recommendations to protect and preserve the community and its unique features. The Mission Beach PP and LCPA's was originally adopted on July 11, 1974, and the Local Coastal Program Addendum was incorporated on Feb. 2, 1982 (City of San Diego 2017).

The Mission Beach PP and LCPA is applicable to the shoreline restoration efforts at Bonita Cove and West Sail Bay, the seawall restoration and pedestrian access improvement areas along Mission Beach, and any wayfinding improvements or deferred maintenance that may occur within the boundaries of the Mission Beach PP and LCPA.

City of San Diego Ocean Beach Community Plan and Local Coastal Program

The Ocean Beach Community Plan and Local Coastal Program (Ocean Beach CP/LCP) is for the community of Ocean Beach, which overlaps with the bicycle and pedestrian improvements in the Improvement Zone. The Ocean Beach CP/LCP designates areas for residential, commercial, public use, and undeveloped open space and includes recommendations on land use, which were established through the public outreach process (City of San Diego 2015).

The Ocean Beach CP/LCP is applicable to the westernmost portion of the Ocean Beach bicycle path improvements as well as any wayfinding improvements, which may be included within the boundaries of the Ocean Beach CP/LCP.

Multiple Species Conservation Program

The City is a participant in the San Diego MSCP, a comprehensive, regional long-term habitat conservation program designed to provide permit issuance authority for take of covered species to the local regulatory agencies. The MSCP SAP addresses habitat and species conservation within approximately 900 square miles in the southwestern portion of San Diego County. It serves as an approved habitat conservation plan pursuant to an approved Natural Communities Conservation Plan in accordance with the state Natural Communities Conservation Planning Act.

The MSCP SAP establishes a preserve system designed to conserve large blocks of interconnected habitat having high biological value that are delineated in Multi-Habitat Planning Areas (MHPAs). The

City of San Diego MSCP SAP (City of San Diego 1997) encompasses 206,124 acres within the MSCP SAP area. The MSCP SAP is characterized by urban land uses with approximately three-quarters either built out or retained as open space/park system.

The City MHPA is a "hard line" preserve developed by the City in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997).

The MSCP SAP identifies 85 plants and animals to be "covered" under the plan (termed Covered Species). Many of these Covered Species are subject to one or more protective designations under state and/or federal law and some are endemic to San Diego. The MSCP SAP seeks to provide adequate habitat in the preserve to maintain ecosystem functions and persistence of extant populations of the 85 Covered Species while also allowing participating landowners "take" of Covered Species on lands located outside of the preserve. The purpose of the MSCP SAP is to address species conservation on a regional level and thereby avoid project-by-project biological mitigation, which tends to fragment habitat.

San Diego Association of Governments: The Regional Plan

The San Diego Association of Governments (SANDAG) is the Metropolitan Planning Organization for the San Diego region. SANDAG coordinates infrastructure projects with local decision-makers in the County and consists of representatives from each of the County's local jurisdictions. The San Diego Forward: The Regional Plan (2021 Regional Plan) was adopted by the SANDAG Board of Directors on December 10, 2021. The 2021 Regional Plan provides a 30-year blueprint for the San Diego region that seeks to create a more efficient, accessible, and sustainable transportation system for the region to connect people and places in such a way that will preserve and enhance the quality of life for current and future generations. The plan is the end product of several years of data analysis, planning, and community input to reimagine the San Diego region with a transformative transportation system, a sustainable pattern of growth and development, and innovative solutions and management strategies (SANDAG 2021a). The 2021 Regional Plan contains the Regional Bike Network that overlaps with the Rose Creek Bike Path, and Fiesta Island Causeway Bike Path improvements, Restoration of Seawall Bulkhead, as well as any wayfinding improvements, which may be included within the boundaries of the Regional Bike Network. The Improvement Zone also overlaps with the coastal Mobility Hub area that is identified by the 2021 Regional Plan in the Pacific Beach community area. A Mobility Hub area is defined as an area that features a mix of travel choices, safer streets, and supporting amenities. This Mobility Hub area overlaps with portions of the proposed Restoration of Seawall Bulkhead Element and the Rose Creek Bike Path Improvements Element. In addition, since the regional plan is updated every 4 years, the SANDAG Draft Proposed 2025 Regional Plan Transportation Network is

available. While this is a draft, it has not been finalized, and a more detailed draft plan will be available for public feedback soon. The current draft plan includes a summary of public outreach efforts, a glossary of the different project types of the forthcoming 2025 Regional Plan, and recurring feedback and impact.

Draft Coastal Resilience Master Plan

The City of San Diego Draft Coastal Resilience Master Plan (CRMP) is an implementation action of Climate Resilient SD and identifies potential nature-based solutions that allow the City to adapt to the impacts of sea level rise for locations along San Diego's coastline, including concept-level designs for six locations in the City. The purpose of the CRMP is to prepare the City to adapt to sea level rise through the implementation of nature-based solutions where feasible. The main objectives are 1) prioritizing nature-based climate change solutions wherever feasible, consistent with Climate Resilient SD Policy TNE-3, 2) addressing the effects of sea level rise and coastal flooding while leveraging additional co-benefits of nature-based solutions, 3) protecting and enhancing critical coastal habitat and associated wildlife from the impacts of climate change, 4) protecting and enhancing recreational opportunities, 5) protecting historical/archaeological/tribal cultural resources and incorporating Indigenous Knowledge into resilience efforts and adaptation strategies, and 6) increasing coastal access for all, especially Communities of Concern.

The proposed Program seeks to implement these objectives whenever possible. In particular, the CRMP proposes two concepts for Mission Beach: a sand dune concept (D-1) for Mission Beach, bounded by Ventura Place to the north and San Fernando place to the south, and a perched beach concept (D-2) which swaps out grass at Mission Beach Park for a perched sand beach. It should be noted that the CRMP is a draft and has not been adopted by the San Diego City Council. As such it is subject to changes in the future.

4.9.3 SIGNIFICANCE DETERMINATION THRESHOLDS

The determination of significance regarding inconsistency with development regulations or plan policies is evaluated in terms of the potential for the inconsistency to result in environmental impacts considered significant under CEQA. Thresholds used to evaluate potential impacts related to land use are based on applicable criteria in the CEQA Guidelines Appendix G and the City's CEQA Significance Determination Thresholds (2022a). The following issue questions are addressed in this section:

1. Would the project conflict with the environmental goals, objectives, or guidelines of a General Plan or Community Plan or other applicable LUP or regulation, and as a result, cause an indirect or secondary environmental impact;
2. Would the project result in a physical division of an established community;

3. Would the project conflict with the provisions of the City's Multiple Species Conservation Program (MSCP) Subarea Plan or other approved local, regional, or state habitat conservation plan; or

4.9.4 IMPACTS ANALYSIS

Issue 1: Would the project conflict with the environmental goals, objectives, or guidelines of a General Plan or Community Plan or other applicable land use plan or regulation and as a result, cause an indirect or secondary environmental impact?

The following discussion addresses the Program's consistency with applicable LUPs, policies, and regulations as described above.

California Coastal Act

The CCA requires projects within the Coastal Overlay Zone to be consistent with standards and policies addressing public access, recreation, marine resources, land resources, development, and industrial development. Table 4.9-1 demonstrates that the Program would not conflict with applicable policies of the CCA because the Program would provide recreational opportunities, public access to the coast, and protection of the marine environment with the proposed wetland and upland habitat expansion improvements. Therefore, impacts would be **less than significant**.

Table 4.9-1
Local Coastal Plan/California Coastal Act Consistency

Public Resources Code §	Policy	Consistency Analysis
Article 2	*Public Access*	
30210	Maximum access, which shall be conspicuously posted, and recreational opportunities shall be provided for all people consistent with public safety needs and the need to protect public rights, rights of private property owners, and natural resource areas from overuse.	As described in the MBPMP, "Mission Bay Park should provide safe, efficient, and enjoyable access to all of its recreation areas…" The proposed Program includes wetland and water quality improvements which would result in increased water quality that would maximize public recreational opportunities such as birding, fishing, paddleboarding, swimming, and kayaking within Mission Bay Park.

Table 4.9-1
Local Coastal Plan/California Coastal Act Consistency

Public Resources Code §	Policy	Consistency Analysis
		Consistent with the MBPMP, Circulation and Access Goal 1.1 "A park which provides maximum public pathway access to the waterfront," the component would improve deteriorating seawalls, upgrade beach access points with ADA-compliant beach access stairways and beach access ramps, which would enable maximum access, provide public safety and an enhanced pedestrian experience along the Mission Bay boardwalk. The proposed Program also includes bicycle and pedestrian path improvements, wayfinding signage, and deferred maintenance for ADA facilities, parking lots, picnic tables, etc. which would maximum the public's access and enhance their recreational experience along the coast. The proposed water quality and wetland improvements would result in salt marsh restoration which would serve to protect the natural resource areas in Mission Bay Park from overuse. Natural resource areas, such as wetland, sensitive habitats and nesting sites, would be protected by fencing, gates, vegetated buffers, and closures.
30211	Development shall not interfere with the public's right of access to the sea where acquired through use or legislative authorization, including, but not limited to, the use of dry sand and rocky coastal beaches to the first line of terrestrial vegetation.	The proposed Program would not interfere with the public's right of access to the beaches within Mission Bay Park, except in areas where restoration, habitat preservation, and nesting sites would occur. The public's right of access to the sea at these preservation areas would not cease, as some level of

Table 4.9-1
Local Coastal Plan/California Coastal Act Consistency

Public Resources Code §	Policy	Consistency Analysis
		recreational use is planned and would be separated by vegetated buffer zones and/or fencing. The implementation of the Site No. 4 – Fiesta Island Least Tern Preserve Area would close the entire preserve area to public access year-round in order to protect the habitat for California Least Tern nesting and feeding activity. The proposed design for North Fiesta Island includes connecting the existing road on the eastern side to the western side of North Fiesta Island, to provide continued access to both sides of the island for vehicles, bicycles, and pedestrians, and to provide access to the beach areas for the public. The proposed Program includes shoreline restoration in some portions of Mission Bay Park, including Vacation Island Northwest where two sand retention rock groins are proposed that would provide pedestrian access on top of the rock groins. In addition, the proposed Program includes two bridges connecting north to central Fiesta Island and allowing public access along the external beach areas of the site.
30212	(a) Public access from the nearest public roadway to the shoreline and along the coast shall be provided in new development projects except where: (1) it is inconsistent with public safety, military security needs, or the protection of fragile coastal resources, (2) adequate access exists nearby, or (3) agriculture would be adversely affected. Dedicated	Public access to the beaches would not be restricted, except in areas where coastal habitat restoration and preservation and nesting sites would occur. While the western side of North Fiesta Island would be closed year-round due to the least tern preserve to protect this fragile coastal resource, a pedestrian and bike path is proposed

Table 4.9-1
Local Coastal Plan/California Coastal Act Consistency

Public Resources Code §	Policy	Consistency Analysis
	access way shall not be required to be opened to public use until a public agency or private association agrees to accept responsibility for maintenance and liability of the accessway.	on the eastern side of North Fiesta Island, providing seasonal public access along the proposed wetlands. The proposed Program also includes a new decorative wall between Thomas Avenue and Grand Avenue which would require temporary closure of the Mission Beach boardwalk during construction; however, temporary pedestrian traffic would go through the parking lot during construction. The proposed Program area does not include agricultural or military uses.
30213	Lower cost visitor and recreational facilities shall be protected, encouraged, and, where feasible, provided. Developments providing public recreational opportunities are preferred.	The proposed Program includes seawall repairs which would promote safer low-/no-cost public recreational opportunities (biking, walking, etc.) along Mission Beach boardwalk, as well as bike and pedestrian improvements and deferred maintenance (picnic tables, etc.) throughout Mission Bay Park. The proposed Program would protect and encourage low-cost visitor in the form of birdwatching along the proposed wetland area at North Fiesta Island.
Article 3	*Recreation*	
30220	Coastal areas suited for water-oriented recreational activities that cannot readily be provided at inland water areas shall be protected for such uses.	The proposed Program includes wetland and water quality improvements which would support better water quality in Mission Bay, thereby potentially increasing water-oriented recreational activities opportunities (paddle-boarding, kayaking, and canoeing, swimming, etc.).

Table 4.9-1
Local Coastal Plan/California Coastal Act Consistency

Public Resources Code §	Policy	Consistency Analysis
30221	Oceanfront land suitable for recreational use shall be protected for recreational use and development unless present and foreseeable future demand for public or commercial recreational activities that could be accommodated on the property is already adequately provided for in the area	Consistent with MBPMP, Mission Bay Park should have land uses located and managed so as to maximize their recreation and environmental functions. The Program proposes deferred maintenance which includes improvements to land-based recreation opportunities including picnic tables, playground equipment, and other bicycle and pedestrian path improvements. The proposed Program includes wetland and water quality improvements which would support better water quality in Mission Bay, thereby potentially increasing water-oriented recreational activities opportunities (e.g., paddle-boarding, kayaking, and canoeing, swimming). At North Fiesta Island, although parts of this area would be closed for the least tern nesting area and the wetlands, the component proposes a pedestrian and bike on the eastern side of North Fiesta Island, providing seasonal public access along the proposed wetlands.
30223	Upland areas necessary to support coastal recreational uses shall be reserved for such uses, where feasible.	The proposed Program proposes expansion of habitat preserves and upland habitats at Fiesta Island and the San Diego River floodway levee. These areas are proposed to be fenced off to restrict public access. However, one of the proposed sites on Fiesta Island (near the youth camping) would offer educational interpretive opportunities for youth using the camping facilities, incorporated along the margins of the

Table 4.9-1
Local Coastal Plan/California Coastal Act Consistency

Public Resources Code §	Policy	Consistency Analysis
		existing roads, trails, and habitat preserve areas.
Article 4	*Marine Environment*	
30230	Marine resources shall be maintained, enhanced, and where feasible, restored. Special protection shall be given to areas and species of special biological or economic significance. Uses of the marine environment shall be carried out in a manner that will sustain the biological productivity of coastal waters and that will maintain healthy populations of all species of marine organisms adequate for long-term commercial, recreational, scientific, and educational purposes.	The proposed Program includes wetland restoration which will enhance, restore, and sustain the biological productivity of coastal waters and marine resources within the Improvement Zone and the greater Mission Bay waters. Native plant species are proposed as part of the wetland restoration and the upland habitat expansion/preservation improvements. The proposed North Fiesta Island area would have wetlands (mudflats, and lower, mid-, and upper-salt marsh) on the east side and the least tern nesting area on the west side. When the North Fiesta Island Wetland improvements are implemented, the fence between the Wetland and the Least Tern Preserve would be relocated or removed to provide a better connection and access for least tern foraging within the proposed wetland areas to the west, fostering healthy least tern populations.
30231	The biological productivity and the quality of coastal waters, streams, wetlands, estuaries, and lakes appropriate to maintain optimum populations of marine organisms and for the protection of human health shall be maintained and, where feasible, restored through, among other means, minimizing adverse effects of waste water discharges and entrainment, controlling runoff, preventing depletion of ground water	Consistent with the MBPMP, Water Use Goal 3, "A park in which the highest water quality is maintained…," the proposed Program involves water quality and wetland restoration at Cudahy Creek, Tecolote Creek and Fiesta Island Causeway, and the eastern side of North Fiesta Island. This would result in improvements to the biological productivity and quality of waters and wetlands in Mission Bay Park. The

Table 4.9-1
Local Coastal Plan/California Coastal Act Consistency

Public Resources Code §	Policy	Consistency Analysis
	supplies and substantial interference with surface waterflow, encouraging waste water reclamation, maintaining natural vegetation buffer areas that protect riparian habitats, and minimizing alteration of natural streams.	proposed Program would also provide stormwater infrastructure improvements at Cudahy Creek where stormwater runoff would flow through the restored wetland area and be treated before entering the deeper waters of Mission Bay, thereby minimizing adverse impacts of waste water discharges into the Bay.
30232	Protection against the spillage of crude oil, gas, petroleum products, or hazardous substances shall be provided in relation to any development or transportation of such materials. Effective containment and cleanup facilities and procedures shall be provided for accidental spills that do occur.	The proposed Program does not include the storage or transportation of hazardous materials. However, construction equipment and materials would be used for the proposed Program. As such, mitigation measures proposed to address potential impacts from spillage of hazardous materials include the training of all contractor and subcontractor personnel to the appropriate practices necessary to prevent hazardous material spills and response measures in the event that a spill occurs. All construction waste, including trash and litter, garbage, other solid waste, petroleum products, and other potentially hazardous materials would be removed to a permitted hazardous waste facility to treat, store, or dispose of such materials. Containment is required for all trash to prevent unnecessary spillage. Furthermore, pursuant to the Stormwater Pollution Prevention Plan (SWPPP) prepared for the Program, all hazardous materials that would be present on any portion of the construction area and site shall be identified. Potential spill or accident

Table 4.9-1
Local Coastal Plan/California Coastal Act Consistency

Public Resources Code §	Policy	Consistency Analysis
		situations shall also be identified, along with appropriate spill response measures. Spill response materials and spill kits would be kept at the construction site.
30233	The diking, filling, or dredging of open coastal waters, wetlands, estuaries, and lakes shall be permitted in accordance with other applicable provisions of this division, where there is no feasible less environmentally damaging alternative, and where feasible mitigation measures have been provided to minimize adverse environmental effects.	The proposed Program includes dredging on both the western and eastern side of the North Fiesta Island (approximately at the entrance to the North Subarea) to support new wetland habitat and improve water circulation by creating a channel that cuts through the island. The intent of the dredging is to enhance habitat on and near the island. It is anticipated that the excavated dredge material can be used for beneficial reuse in other wetlands restoration projects part of the proposed Program.
30234.5	The economic, commercial, and recreational importance of fishing activities shall be recognized and protected.	The proposed Program is not anticipated to create any impacts of changes to fishing activities within Mission Bay Park. However, improved water quality and wetland restoration through the implementation of the Program would likely result in improved fishing activities.
32035	Revetments, breakwaters, groins, harbor channels, seawalls, cliff retaining walls, and other such construction that alters natural shoreline processes shall be permitted when required to serve coastal-dependent uses or to protect existing structures or public beaches in danger from erosion, and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply. Existing	The Program proposes shoreline armoring within Mission Bay Park and along the Mission Beach seawall; however, the armoring is to protect existing structures and/or public beaches in danger from erosion. In addition, the proposed armoring should be designed to eliminate or mitigate adverse impacts on local shoreline sand supply.

Table 4.9-1
Local Coastal Plan/California Coastal Act Consistency

Public Resources Code §	Policy	Consistency Analysis
	marine structures causing water stagnation contributing to pollution problems and fishkills should be phased out or upgraded where feasible.	
30236	Channelizations, dams, or other substantial alterations of rivers and streams shall incorporate the best mitigation measures feasible, and be limited to (l) necessary water supply projects, (2) flood control projects where no other method for protecting existing structures in the flood plain is feasible and where such protection is necessary for public safety or to protect existing development, or (3) developments where the primary function is the improvement of fish and wildlife habitat	The proposed Program includes dredging which would occur on both the western and eastern side of North Fiesta Island to support new wetland habitat and improve water circulation by creating a channel that cuts through the island. Improving water circulation and flow would improve fish and wildlife habitat.
Article 5	*Land Resources*	
30240	(a) Environmentally sensitive habitat areas shall be protected against any significant disruption of habitat values, and only uses dependent on those resources shall be allowed within those areas. (b) Development in areas adjacent to environmentally sensitive habitat areas and parks and recreation areas shall be sited and designed to prevent impacts which would significantly degrade those areas, and shall be compatible with the continuance of those habitat and recreation areas.	The proposed Program includes grading for the wetlands which has the potential to impact sensitive habitat. However, the Program proposes to create mudflats, and lower, mid-, and upper-salt marsh habitats which would be protected with fencing to protect the habitats. In addition, the Program proposes to replace non-native habitats with native habitats and proposes restoration benefits for the California least tern (ESHA), including adding sand with shell fragments throughout the preserve to improve natural conditions for Least Tern nesting. As such, nesting restrictions are imposed from February 15th to September 1st (with some flexibility on the end date for certain bird species) each year for the California

Table 4.9-1
Local Coastal Plan/California Coastal Act Consistency

Public Resources Code §	Policy	Consistency Analysis
		Least Tern nesting area to the north, limiting excavation activities to 5.5 months each year.
Article 6	*Development*	
30251	The scenic and visual qualities of coastal areas shall be considered and protected as a resource of public importance. Permitted development shall be sited and designed to protect views to and along the ocean and scenic coastal areas, to minimize the alteration of natural land forms, to be visually compatible with the character of surrounding areas, and, where feasible, to restore and enhance visual quality in visually degraded areas. New development in highly scenic areas, such as those designated in the California Coastline Preservation and Recreation Plan prepared by the Department of Parks and Recreation and by local government, shall be subordinate to the character of its setting.	Consistent with MBPMP, measures that further enhance and preserve critical views of the Bay should be pursued, such as maintaining visual corridors to the water. The proposed Program will not impede any visual corridors to the water. Program elements would restore and enhance visual quality by implementing wetland, upland, and shoreline restoration as well as bicycle and pedestrian improvements compatible with surrounding areas.
30252	The location and amount of new development should maintain and enhance public access to the coast by (1) facilitating the provision or extension of transit service, (2) providing commercial facilities within or adjoining residential development or in other areas that will minimize the use of coastal access roads, (3) providing non-automobile circulation within the development, (4) providing adequate parking facilities or providing substitute means of serving the development with public transportation, (5) assuring the potential for public transit for high intensity uses such as	The proposed Program includes improvements to the parapet seawalls, and construction of a new decorative wall at Mission Beach, which aim to maintain and enhance public access along the coast. The proposed Program would continue to maintain and enhance public access to the coast. The proposed Program would not result in commercial or residential development.

Table 4.9-1
Local Coastal Plan/California Coastal Act Consistency

Public Resources Code §	Policy	Consistency Analysis
	high-rise office buildings, and by (6) assuring that the recreational needs of new residents will not overload nearby coastal recreation areas by correlating the amount of development with local park acquisition and development plans with the provision of on-site recreational facilities to serve the new development.	
30253	New development shall do all of the following: (a) Minimize risks to life and property in areas of high geologic, flood, and fire hazard. (b) Assure stability and structural integrity, and neither create nor contribute significantly to erosion, geologic instability, or destruction of the site or surrounding area or in any way require the construction of protective devices that would substantially alter natural landforms along bluffs and cliffs. (c) Be consistent with requirements imposed by an air pollution control district or the State Air Resources Board as to each particular development. (d) Minimize energy consumption and vehicle miles traveled where appropriate. (e) Protect special communities and neighborhoods that, because of their unique characteristics, are popular visitor destination points for recreational uses.	(a) The proposed Program does not include structural elements that would be occupied. Compliance with existing regulations and standards would ensure that the proposed improvements would not increase risks related to geologic, flood, and fire hazards (also see Section 4.4, Geology and Soils, for an analysis of potential geologic hazards; Section 4.8, Hydrology and Water Quality, for potential flood-related hazards; and Section 4.7, Health and Safety, for potential fire hazards). (b) The proposed Program includes repairs, improvements and extensions of existing structures put in place to protect against erosion and siltation in the Bay, as well as replacement and enhancement of the Mission Bay Seawall to protect the boardwalk from erosion form wind and wave energy. The Program also proposes alteration of landforms in order to create wetlands, which serve to reduce potential erosion and

Table 4.9-1
Local Coastal Plan/California Coastal Act Consistency

Public Resources Code §	Policy	Consistency Analysis
		the effects from SLR. The Program does not include proposed development of structures that would contribute significantly to erosion or geologic instability, or destruction of the Program area otherwise. (c) The Program would comply with all existing and new rules and regulations as they are implemented by SDAPCD, CARB, and/or EPA related to emissions generated during construction and operation. (d) The Program includes improving existing pedestrian and bicycle facilities through Mission Bay Park which may support the City's ongoing efforts to minimize energy consumption and vehicle miles traveled. (e) The proposed Program would improve water quality and habitat throughout Mission Bay Park through wetland expansion, water quality improvements, habitat improvements, and visitor-serving improvements. The Program would provide improved recreational opportunities to residents and visitors in certain areas.
30255	Coastal-dependent developments shall have priority over other developments on or near the shoreline. Except as provided elsewhere in this division, coastal-	The proposed Program includes many coastal-dependent developments including repairs to a seawall adjacent to the public access pathway adjacent

Table 4.9-1
Local Coastal Plan/California Coastal Act Consistency

Public Resources Code §	Policy	Consistency Analysis
	dependent developments shall not be sited in a wetland. When appropriate, coastal-related developments should be accommodated within reasonable proximity to the coastal-dependent uses they support.	to Mission Beach, shoreline restoration at various areas within Mission Bay Park, and wetland and water quality improvements. Dredging is proposed to occur on both the western and eastern side of the island approximately at the entrance to the North Subarea to support new wetland habitat and improve water circulation by creating a channel that cuts through the island.

Landscaping and Lighting Act

The Landscaping and Lighting Act of 1972 allows local government agencies such as counties, cities, and special districts to acquire land for parks and open space. A local government may use the assessments to pay for improvements and maintenance in these areas. In addition to local government agencies, community service districts, park and recreation districts, and water districts may provide park and recreation facilities. The proposed Program would not conflict with the Landscaping and Lighting Act. Impacts would be less than significant.

Land Development Code Regulations

The LDC sets forth the regulations for the development and use of property, including zoning, and other related land use activities, in the City. The LDC is intended to facilitate fair and effective decision-making and to encourage public participation (City of San Diego 2021b). The Program's consistency with the LDC regulations is provided below.

Environmentally Sensitive Lands Regulations

Within the LDC are ESL regulations. The purpose of the ESL regulations is to protect, preserve, and where damaged, restore the ESL (e.g., wetlands, sensitive biological resources, steep hillsides, coastal beaches, sensitive coastal bluffs, and Special Flood Hazard Areas) of San Diego and the viability of the species supported by those lands. The purpose of these regulations is to ensure that development, including but not limited to coastal development in the Coastal Overlay Zone, occurs in a manner that

protects the overall quality of the resources and the natural and topographic character of the area, encourages a sensitive form of development, retains biodiversity and interconnected habitats, maximizes physical and visual public access to and along the shoreline, and reduces hazards due to flooding in specific areas while minimizing the need for construction of flood control facilities (City of San Diego 2022c). The Program could potentially impact ESL (e.g., wetlands, sensitive biological resources, and coastal beaches) through creation, restoration, and enhancement activities.

Wetland and Water Quality Improvements Element

The ESL Regulations are not applicable to the wetland and water quality improvements since the areas where the wetlands are proposed are not currently identified as wetlands in the Coastal Overlay Zone, per City of San Diego Map Drawing No. C-713. As such, impacts would be **less than significant**.

Restoration of Shoreline Element

The City's ESL Regulations state that development encroaching into a Special Flood Hazard Area (SFHA) shall follow development regulations and all other applicable requirements and regulations of the Federal Emergency Management Agency as identified in §143.0145(e) and §143.0145 (f). The proposed Program includes shoreline restoration in the form of beach nourishment at West Sail Bay; construction of two sand retention rock groins and beach nourishment at Vacation Island NW; riprap repair and a cobble berm backfilled by beach nourishment at Vacation Island NE; raising the riprap revetment, burying crest of the revetment by sand, amenity improvements, and improved oyster habitat at Vacation Island SW; cobble berm with beach nourishment and relocating the sidewalk back by 30 feet at Bonita Cove; repair and raise crest height of riprap, add footpath parallel to riprap and improve oyster habitat at Ventura Cove Park; cobble breakwater, sheet wall groins, beach nourishment, and stormwater improvements and adding paths at Bahia Point; and extending the seawall southeast at Crown Point. The proposed shoreline restoration improvements would likely encroach into an SFHA; however, the express purpose of the proposed restoration of shoreline improvements is to accommodate for sea level rise and flooding, reduce erosion, minimize impacts and ongoing maintenance costs, and improve overall beach and shoreline quality. Furthermore, while the City's ESL Regulations contain limitations for building structures in an SFHA, the City's definition of a structure does not encompass shoreline restoration improvements. Therefore, shoreline restoration components would not conflict with these regulations, and impacts would be **less than significant**.

Upland Habitat and Preservation Expansion Element

The purpose of the ESL Regulations is to protect, preserve, and restore environmentally sensitive lands. The proposed Program seeks to expand and preserve habitat, including the sensitive species such as Nuttall's Lotus. As such, the proposed Program is consistent with the ESL Regulations, and impacts would be **less than significant**.

Bicycle and Pedestrian Improvements Element

The City's ESL Regulations state that development encroaching into a Special Flood Hazard Area (SFHA) shall follow development regulations and all other applicable requirements and regulations of the Federal Emergency Management Agency as identified in §143.0145(e) and §143.0145 (f). The proposed Program includes bicycle and pedestrian pathway improvements south of the San Diego levee (Ocean Beach Bike Path) as well as along Fiesta Island Causeway/near Tecolote Creek (Fiesta Island Causeway Bike Path), which are both near an SFHA. A portion of the Ocean Beach Bike Path is on top of a levee and adjacent to the SFHA; however, it does not encroach into the area. Similarly, the Fiesta Island Causeway Bike path is adjacent to an SFHA but does not encroach into the area. Thus, the bike and pedestrian improvements do not conflict with the City's ESL Regulations for development within an SFHA. Impacts would be **less than significant**.

Restoration of Seawall Bulkhead Element

The City's ESL regulations state that impacts to coastal beach areas, which is limited to oceanfront beach, shall be avoided, and only the uses identified in §143.0130(b) of the ESL regulations shall be permitted. This includes (1) lifeguard towers and stations and associated life and security facilities, (2) public comfort stations, (3) public piers, (4) safety and public information signs, (5) shoreline protective works when necessary to prevent bluff and beach erosion and to protect coastal-dependent uses, public beach roadways, or existing primary structures in danger from wave action and when designed to eliminate or mitigate adverse impacts on local shoreline sand supply, (6) public stairways, ramps, and other physical access structures, as proposed within an applicable LUP, and (7) public recreational equipment.

As described in Chapter 3, Project Description, the Program would result in improvements to the Mission Beach Seawall along the Mission Beach and Pacific Beach boardwalk consisting of replacement of the existing concrete parapet seawall segment between Balboa Court and Pacific Beach Drive with a new 42-inch parapet and replacing voids below the walkway; replacement of the existing concrete parapet seawall between Pacific Beach Drive and Thomas Avenue with a new 42-inch parapet; and a new, decorative 375-foot-long wall segment between Thomas Avenue and Grand Avenue. The Program also consists of upgrading beach access points with ADA-compliant beach access stairways and beach access ramps, and constructing a new 75-foot-long driveway at Thomas Avenue that would provide beach access for City equipment. The proposed seawall restoration activities would be a compatible use within Coastal Overlay Zone coastal beach areas in accordance with the allowed uses listed in Section 143.0130, Uses Allowed Within Environmentally Sensitive Lands, of the City's LDC, including Section 143.0130(b)(5) which allows shoreline protective works when necessary to prevent beach erosion and to protect coastal-dependent uses. Additionally, it is compatible with the allowed uses listed in Section 143.0130(b)(6), which allows for public stairways

and ramps. As such. the proposed seawall improvements are limited to existing developed areas and would be consistent with uses allowed under §143.0130(b) and (c); therefore, the Program would be consistent with the City's ESL regulations and not result in a substantial adverse change to environmentally sensitive lands. Impacts would be **less than significant**.

Historical Resources Regulations

Within the LDC are Historical Resources regulations. The City's Historical Resources regulations apply when historical resources are present. The purpose of these regulations is to protect, preserve, and where damaged, restore the historical resources of San Diego (City's Municipal Code, Section 143.0201). The regulations define historic resources as historical buildings, historical structures, historical objects, important archaeological sites, historical districts, historical landscapes, historical objects, historical structures, important archaeological sites, and traditional cultural properties.

Wetland and Water Quality Improvements Element

As described in Section 4.6 Historical Resources, the wetlands and water quality improvements do not contain or intersect with historical resources. Therefore, **no impact** would occur.

Restoration of Shoreline Element

As described in Section 4.6 Historical Resources, the shoreline restoration improvements do not contain or intersect with historical resources. Therefore, **no impact** would occur.

Upland Habitat and Preserve Expansion Element

As described in Section 4.6 Historical Resources, the upland habitat expansion improvements do not contain or intersect with historical resources. Therefore, **no impact** would occur.

Bicycle and Pedestrian Improvements Element

The Bicycle and Pedestrian Improvements Element includes improvements to existing trails and sidewalks, and construction of new trails and sidewalks to connect existing paths within the Improvement Zone. One Bicycle and Pedestrian Pathway component in this element would bisect archaeological resources (CA-SDI-005017).

The boundary of the Rose Creek Bike Path improvements bisects the boundary of CA-SDI-005017, the ethnohistoric Native American village of La Rinconada de Jamo. Previous archaeological testing within the resource boundary has produced significant deposits of cultural midden and materials. However, the resource boundary covers approximately 300 acres, and none of these deposits were identified

within the Program footprint. The area has undergone extensive alteration of the terrain along the east bank of Rose Creek. This has likely displaced any remnants of the resource that may have previously existed. Although intact cultural deposits are unlikely, there is still potential for impact to CA-SDI-005017 to occur during grading and excavation.

The other activities in this element include minor ground disturbance and construction activities in primarily disturbed areas. Due to the existing disturbance and minimal ground disturbance, there is a low potential to impact unknown subsurface resources. Further, as mentioned, the Program would comply with applicable regulations associated with archaeological resources in the unlikely event that an inadvertent discovery is made. While this element would occur in highly disturbed areas with existing development, implementation of the element would result in a **potentially significant** impact to Historical Resources Regulations due to the potential impacts to the known resources described above.

Restoration of Seawall Bulkhead Element

As indicated in Section 4.6, Historical Resources (Built Environment and Archaeological Resources), and Appendix O, Historical Resources Seawall Evaluation Memorandum, the Mission Beach Seawall is a historic resource under CEQA as the Mission Beach Seawall is over 45 years old. It was built in three construction phases in the years 1925, 1928, and 1968.

Per Section 143.0212 of the City's Municipal Code, review of all building, demolition, or entitlement applications impacting a building 45 years old or older is required to determine whether historical resources exist in an area prior to permit issuance. Any site-specific development within the area would be required to comply with Section 143.0212 and would be reviewed for conformance with the goals and policies relating to the identification and preservation of historical resources in the Historic Preservation Element of the City's General Plan. The City Manager is required to evaluate the proposed development to determine if there is a need for a site-specific survey. If a site-specific survey is required, it shall be conducted consistent with the Historical Resources Guidelines of the Land Development Manual (City's Municipal Code, Section 143.0212[d]). As such, a site survey was conducted for the Mission Beach Seawall and determined that the seawall maintains integrity to be listed on the National Register of Historic Places, California Register of Historical Resources, and/or designated by the San Diego Historical Resources Board. The survey memorandum recommends ways to retain the integrity of the seawall including design plans that retain the features of the seawall that contribute to its significance for its association with the early development of Mission Beach; replacing features and materials that are compatible with the historic features of the seawall; and allowing new designs to retain or replace substantially altered or non-original components. The Restoration of Seawall Bulkhead Element includes the replacement of large sections of the seawall, the extension of the seawall, and the replacement of stairways or the addition of ADA ramps for beach

access. Minor excavation would be required to remove existing facilities. Under the Proposed Program, the majority of the Mission Beach Seawall would be replaced with modern construction consistent with required safety and ADA accessibility codes. As such, the seawall may not be built to meet all the Secretary of Interior's Standards, as described in Section 4.6 Historical Resources. The improvements would not be consistent with the Historical Resources regulations in the City's Municipal Code, as described in Section 4.6 Historical Resources, and would result in an inconsistency with the LDC. Impacts would be significant and unavoidable to a historic resource. However, the LDC provides processes for addressing when impacts to historic resources cannot feasibly be avoided but efforts to reduce impact and to comply with the Historic Resource Regulations have been made to the maximum extent feasible. The proposed Program would follow these processes. On balance, the Program implements the City Charter Section 55.2 and would generally not conflict with environmental goals, objectives, or guidelines of a General Plan or Community Plan or other applicable land use plan or regulation. Therefore, the impact would be less than significant impact.

City of San Diego General Plan

Table 4.9-2 identifies the plans and the specific goals and policies that are relevant to the Program and provides an evaluation of the Program's consistency with them.

As shown in Figure 2-9, General Plan Designations, in Chapter 2, Environmental Setting, the Improvement Zone is designated as Park, Open Space, & Recreation, as well as Residential and Commercial Employment, Retail, & Services along the Mission Beach Seawall in the City's General Plan (City of San Diego 2024b). The Program is consistent with the current General Plan land use designations and intended uses. Table 4.9-2 provides a discussion of the program's compliance with each of the relevant goals and policies of the City's General Plan, demonstrating that the Program would not conflict with or prevent the implementation of the goals, objectives, or guidelines of the City's General Plan. As such, the Program would not cause an indirect or secondary environmental impact related to inconsistency with the City's General Plan, and impacts would be **less than significant**.

Table 4.9-2
General Plan Consistency Analysis

General Plan Relevant Goals and Objectives	Program Consistency Analysis
Mobility Element	
A city where walking/rolling is a viable travel choice, particularly for trips of less than one-half mile.	The Program includes bicycle and pedestrian path improvements which would promote walking/rolling as a feasible choice to travel to and around Mission Bay Park. The Program is consistent with this policy.

Table 4.9-2
General Plan Consistency Analysis

General Plan Relevant Goals and Objectives	Program Consistency Analysis
Goal: Environmental quality, public health, recreation, and mobility benefits through increased bicycling.	The Program includes bicycle and pedestrian path improvements, which would promote bicycling and its co-benefits. The Program is consistent with this policy.
Urban Design Element	
Goal: A pattern and scale of development that provides visual diversity, choice of lifestyle, opportunities for social interaction, and that respects and enhances community character and context. Attractive and functional corridors which link communities to transit, walking/rolling and biking infrastructure and provide access to goods and services.	The Program would create and improve pedestrian and bicycle infrastructure along the Ocean Beach bike path, Rose Creek bike path, and the Fiesta Island Causeway linking users from Ocean Beach to Mission Bay Park. The Program is consistent with this policy.
Goal: A storm water conveyance system that effectively reduces pollutants in urban runoff and storm water to the maximum extent practicable.	The Program two subtidal channels that connect the two Cudahy storm drain outfalls to provide conveyance for storm water runoff through the wetland area and to the North Pacific Passage of Mission Bay. The Program is consistent with this policy.
Recreation Element	
Goal: A regional and citywide parks/open space system, including the bays, beaches, rivers, and other attractions, that gives our region identity, attracts tourism, and enriches the quality of life for community members and visitors.	The Program includes bicycle and pedestrian improvements, shoreline and seawall restoration, wayfinding improvements, water quality and wetland improvements, deferred maintenance on Mission Bay Park assets, and upland habitat expansion which would l enrich the bays and beaches of Mission Bay, enriching the experience of community members and visitors alike. The Program is consistent with this policy.
RE-C.2 Protect, manage and enhance parks and open space lands through appropriate means which include sensitive planning, park and open space dedications, and physical protective devices	The Program includes an improved habitat preserve area for the California Least Tern on the western side of North Fiesta Island. In addition, the Program proposes wetland and water quality restoration and enhancement at Cudahy Creek, Tecolote Creek and Fiesta Island Causeway, and North Fiesta Island, and certain areas would be fenced off to promote plant

Table 4.9-2
General Plan Consistency Analysis

General Plan Relevant Goals and Objectives	Program Consistency Analysis
	growth after construction. The Program is consistent with this policy.
RE-C.11 Promote development patterns that are consistent with MSCP, VPHCP, and other applicable regulations and that contribute to clean air and clean water and help the city meet its climate action and resilience goals.	The Program includes creating and upgrading pedestrian and bicycle pathways and creating wetlands. Both would help to contribute to cleaner air and water and reduce overall greenhouse gas emissions, aligning with the City's climate action and resilience goals. The Program is consistent with this policy.
Goal: Provision of an inter-connected park and open space system that is integrated into and accessible to the community	The Program would continue to provide a range of recreational opportunities and natural open space within Mission Bay Park. The Program is consistent with this policy.
RE-D.6 Provide safe and convenient bicycle, pedestrian, and micro mobility linkages to, and within, park and recreation facilities and open space areas.	The Program would improve and create pedestrian and bicycle infrastructure along the Ocean Beach bike path, Rose Creek bike path, and the Fiesta Island Causeway, linking users from Ocean Beach to Mission Bay Park. The Program is consistent with this policy.
Goal: An open space and resource-based park system that provides for the preservation and management of natural resources, enhancement of outdoor recreation opportunities, and protection of the public health and safety.	The Program proposes upland and wetland habitat which would enhance the preservation and management of habitats for natural resources, including native plants and wildlife. The Program is consistent with this policy.
Conservation Element	
Goal: To be prepared for, adapt, and thrive in a changing climate.	The Program proposes improvements to the Mission Bay seawall and boardwalk to help adapt to coastal erosion, resulting from sea level rise and climate change. Additionally, the Program proposes wetland habitat, which would contribute to sea level rise adaptation efforts by reducing greenhouse gas emissions (i.e., blue carbon sink), which contribute to climate change. The Program is consistent with this policy.
CE-A.16 Prioritize nature-based solutions and other sustainable management practices to	The Program includes creating and restoring wetlands, which are a nature-based solution to climate change, as they capture large amounts

Table 4.9-2
General Plan Consistency Analysis

General Plan Relevant Goals and Objectives	Program Consistency Analysis
provide environmental, social and economic benefits and help build climate resilience.	of greenhouse gas emissions. The Program is consistent with this policy.
Goal: Clean coastal waters by continuing to improve the quality of ocean outfall discharges	The Program proposes two subtidal channels that connect the two Cudahy storm drain outfalls that would provide conveyance for stormwater runoff through the wetland area and to the North Pacific Passage of Mission Bay). The Program is consistent with this policy.
CE-C.1 Protect, preserve, restore and enhance important coastal wetlands and habitat (tide pools, lagoons and marine canyons) for conservation, research and limited recreational purposes.	The Program proposes wetland and water quality restoration and enhancement at Cudahy Creek, Tecolote Creek and Fiesta Island Causeway, and North Fiesta Island. Certain areas would be fenced off to promote plant growth after construction. The Program is consistent with this policy.
Goal: Preservation of healthy, biologically diverse regional ecosystems and conservation of endangered, threatened, and key sensitive plants and animals and their habitats.	The Program includes establishing native plant communities that provide habitats for sensitive and endangered species and improving soils to support the habitats. The Program is consistent with this policy.
CE-H.5 Restore salt marshland and other associated tidal wetland and riparian habitats where feasible.	The Program proposes the creation of 5.2 acres of salt marsh habitat within Cudahy Creek and 16.2 acres of salt marsh habitat at Tecolote Creek/Fiesta Island Causeway. The Program is consistent with this policy.
Environmental Justice Element	
EJ-B.7 Plan for safe and enjoyable mobility options that reduce pollution-emitting vehicular travel.	The Program would improve and create pedestrian and bicycle infrastructure, which is expected to reduce pollution-emitting vehicular travel. The Program is consistent with this policy.

Source: City of San Diego 2024b.

Table 4.9-2 shows the Program's consistency with relevant policies and goals from the General Plan. The Program would include bicycle and pedestrian improvements, restoration of the seawall, restoration of the shoreline, wetland and water quality improvements, and upland habitat and preserve expansion, all of which are consistent with the General Plan.

Mission Bay Park Master Plan

Most of the Improvement Zone is within the boundaries of the MBPMP (City of San Diego 2024a). The MBPMP serves as the CP/LCP LUP for Mission Bay Park.

The Program is subject to the goals and recommendations in the MBPMP. The MBPMP recommends that Mission Bay Park provide a diversity of public, commercial, and natural land uses for the enjoyment and benefit of all, including areas designated as coastal landscape, multi-use paths, lease areas, parkland, including a public amphitheater and promenade, wetland habitats, and open beach areas. As described in Chapter 3, Project Description, and illustrated in Figure 2-3, Mission Bay Park Improvements Program Overview and Elements Locations, in Chapter 2, the Program seeks to implement the recommendations of the MBPMP. The Program's consistency with the MBPMP, serving as the certified LCP for Mission Bay Park, is further explained below, and described in Table 4.9-1. Local Coastal Plan/California Coastal Act Consistency Analysis. The proposed Programs and their MBPMP land uses are described below.

Wetland and Water Quality Improvements Element

The adopted MBPMP, which includes the adopted Fiesta Island Amendment from November 2021, designates the eastern side of the North Subarea of Fiesta Island as new wetlands and the western side as an improved habitat preserve area for the California Least Tern. The MBPMP designates the area where the wetland improvements would take place at Cudahy Creek and Tecolote Creek and Fiesta Island Causeway as wetlands habitats or proposed wetland areas. The proposed improvements at North Fiesta Island, Cudahy Creek, and Tecolote Creek and Fiesta Island Causeway would implement wetland restoration and expansion projects, consistent with these designations. These three components of the Wetland and Water Quality Improvements Element would enhance existing wetland habitat and create new wetland habitat to benefit water quality. Thus, the proposed wetland and water quality improvements would not conflict with the MBPMP, and impacts would be **less than significant**.

Restoration of Shoreline Element

The MBPMP designates the areas where shoreline restoration would occur, Ventura Cove, Bonita Cove, Bahia Point, West Sail Bay, Crown Point, Vacation Island NE, NW, and SW), as Open Beach. In addition, Ventura Cove Park and Vacation Island SW are also designated as bulkhead/rip rap. Bahia Point, Crown Point, and Vacation Island NE are designated as beach with bulkhead. The proposed shoreline restoration improvements do not conflict with the existing policies and recommendations, and impacts would be **less than significant**.

Upland Habitat and Preserve Expansion Element

The MBPMP, including the adopted 2021 Fiesta Island Amendment and 2024 De Anza Natural Amendment, designates the southern subarea of Fiesta Island (Site No. 1 – Fiesta Island South) as a fenced off-leash dog area, coastal landscape (natural recreation), beach, and the westernmost portion of this area as least tern preserves. The MBPMP designates the area near youth camping (Site No. 3 – Fiesta Island Near Youth Camping) as lease areas and habitat preserves. The MBPMP designates the north central subarea of Fiesta Island (Site No. 2 – Fiesta Island North Central) as sand management, habitat preserves, and coastal landscape. The MBPMP designates the west area of the northern subarea of Fiesta Island as the least tern nesting area that is closed year-round (Site No. 4 – Fiesta Island Least Tern Preserve Area). The MBPMP designates the Improvement Zone that is south of South Shores and along Sea World Drive (Site 5a – Cloverleaf Enhancement Area) as Coastal Landscape and Upland Preserve. The MBPMP designates the Improvement Zone bordered to the north by Sea World Drive, to the east by Friars Road, and to the south by the Old Sea World Drive access road/trail and the rock-armored San Diego Riverbank (Site No. 5b – Triangle Restoration Area) as Coastal Landscape. The MBPMP designates the Improvement Zone that is bordered by Sea World Drive to the south and east and Mission Bay to the north and west (Site No. 5c – South Shores East Area) as Regional Parkland (Figure 4.9-1, Upland Habitat Expansion and Preservation – Sea World Drive Concept Areas).

At Fiesta Island, the proposed Program (Site No. 1 – Fiesta Island South) proposes establishing Diegan Coastal Sage Scrub on the flat interior area of the site, Coastal Strand on the existing berm, and creating Southern Coastal Salt Marsh habitat. Fencing would be installed along the designated new trail system between the recreational use area and the preserve to protect the area from damage and to prevent visitor access. The proposed upland habitat expansion would not prevent the use of the fenced off-leash dog area, coastal landscape (natural recreation), or beach, as designated by the MBPMP, as the uses would be shared in this area but separated by fencing.

Site No. 3 – Fiesta Island Near Youth Camping would establish Diegan Coastal Sage Scrub, Coastal Strand, and enhance the existing non-tidal coastal salt marsh vegetation, which is consistent with the MBPMP's designation of this area of habitat preserve and lease area. Site No. 4 – Fiesta Island North Central proposes upland habitat restoration, adding a formal trail around the perimeter of the restoration area, and adding fencing to prevent accidental damage by pedestrians, which is consistent with the MBPMP's designation of this area. Site No. 5 – Fiesta Island Least Tern Preserve Area proposes enhancing the habitat within the western portion of North Fiesta Island to improve conditions for least tern nesting, and the close of visitor access year-round to protect the least tern preserve, which is consistent with the MBPMP's designation of this area.

Along Sea World Drive, Site 5a – Cloverleaf Enhancement Area is located at the west end of the San Diego River access road (old Sea World Drive). The site is adjacent to an existing CLT Preserve and is enclosed

by chain-link fencing, with Torrey Pine trees lining the northern edge. The proposed enhancement area would be developed through exotic species removal and control, expansion and improvement of open sand areas, and revegetation of buffer areas. This habitat expansion would be consistent with the MBPMP's designation for this area, which is as Coastal Landscape and Upland Preserve. The western end of Site No. 1a – Cloverleaf Enhancement Area has been identified as currently disturbed, nesting habitat, and the eastern portion has been identified as containing beach strand upland habitat (as shown in MBPMP Figure 24). Further, the City's Natural Resources Management Plan for Mission Bay Park is expected to be updated within the next 2 to 5 years and will include the relocation of the existing CLT nesting site. This update is anticipated to guide the siting and design of a new nesting area, and Site No. 5a may play a role in supporting these conservation goals.

At Site 5b – Triangle Enhancement Area, the existing habitat would be enhanced by removing invasive plants and planting native plants, which is consistent with the MBPMP's designation for this area as Coastal Landscape. Upland expansion at Site 5c – South Shores East Restoration and Enhancement Area would include removing non-native species, importing soil, and installing native plant species. The existing Nuttall's Lotus population within the center of the site would be protected from disturbance. The MBPMP designates Site 5c – South Shores East Restoration and Enhancement Area as Parkland. Figure 31 of the MBPMP, South Shores Concept Plan, shows multiple uses in the South Shores area, including a public amphitheater, promenade, playground, parkland, and upland habitat (City of San Diego 2024a). Habitat expansion and protection would be consistent with the underlying land use designation of Parkland, as shown on the MBPMP Land Use Map. It is possible that a combination of these uses could be developed within the designated area and remain compatible with the installation of fencing to protect the vegetation. The proposed habitat expansion and protection would not conflict with the underlying land use designation of the MBPMP, and would not preclude the development of other uses consistent with the designation, such as public amphitheater or promenade. Impacts would be **less than significant**.

Bicycle and Pedestrian Improvements Element

The MBPMP, including the draft De Anza Cove Amendment which was approved by the City Council in May 2024 but could be subject to modifications upon review by the California Coastal Commission, designates part of the area where the Program proposes the Rose Creek Bike Path improvements as a multi-use path. However, the current adopted MBPMP does not map, establish land use designations, or identify specific uses for the areas where the proposed Rose Creek Bike Path improvements, Ocean Beach Bike Path improvements, or Fiesta Island Causeway Bike Path improvements are proposed. Therefore, the proposed bicycle and pedestrian path improvements do not conflict with the MBPMP, and impacts would be **less than significant**.

Restoration of Seawall Bulkhead Element

The area proposed for restoration of the seawall along Mission Beach and Pacific Beach is not included within MBPMP boundary. As such, the MBPMP does not contain land use designations or policies or recommendations applicable to this area. Therefore, the proposed seawall improvements do not conflict with the MBPMP, and impacts would be **less than significant**.

Mission Bay Park Natural Resource Management Plan

The Mission Bay Park Natural Resource Management Plan is an appendix of the MBPMP. The intent of the Natural Resources Management Plan is that no net reduction of wildlife habitat is allowed and that the overall quality of habitat will be improved. The Program would create and enhance wetland habitat (coastal salt marsh) and expand upland habitats and preserves, which would support continuous habitat corridors that can add space and improve stability for sensitive species like the California Least Tern. Wildlife habitat may be reduced temporarily in certain areas to accommodate the development. However, any wildlife habitat impacts would be replaced or balanced, and there would be an overall increase in wildlife habitat. The Program would not conflict with the intent of the Natural Resources Management Plan, and impacts would be **less than significant**.

Climate Action Plan

The CAP includes six strategies developed to reduce citywide GHG emissions and achieve the GHG reduction targets identified in the CAP. The Program's consistency with these strategies is discussed in Section 4.5 Greenhouse Gas Emissions, and relies on the CAP Memorandum, included in Appendix L to this Environmental Impact Report. As described in Section 4.5, the Program would be consistent with all six strategies of the CAP and would result in a less-than-significant impact.

Climate Resilient SD Plan

The Climate Resilient SD Plan is the City's first-ever climate change adaptation and resiliency plan. It builds upon the City's CAP, providing strategies to be better prepared to respond to and recover from climate change events, including extreme heat, sea level rise, wildfires, flooding, and drought. The five main goals of the plan include connected and informed communities, resilient and equitable city, protection of historical and tribal cultural resources, thriving natural environments, and maintenance of critical City infrastructure (City of San Diego 2024g).

Wetland and Water Quality Improvements Element

One of the Climate Resilient SD Plan's main goals is to support and prioritize thriving natural environments and enhance their adaptability to climate impacts, including Policy TNE-1 which is to

protect environmental quality and biodiversity. The Program proposes wetland and water quality improvements including a tidal channel to improve water quality, creation of wetland habitat, and fencing off of an area to preserve the environmental quality of the vegetation following construction at North Fiesta Island; subtidal channels, salt marsh wetland, a berm area, oyster bag slope, and fencing off of an area to preserve the environmental quality of the vegetation following construction at Cudahy Creek Cove; and open channel, salt marsh wetland, dune features, upland habitat, and a bridge for park visitors at Tecolote Creek. As such, the proposed wetland and water quality improvements would protect the environmental quality and enhance biodiversity through the creation of salt marsh habitat that is conducive to biodiversity and would protect the environmental quality of vegetation by reducing possibility of disturbance. As such, the proposed Program would not conflict with the Climate Resilient SD Plan. Impacts would be **less than significant**.

Restoration of Shoreline Element

The Climate Resilient SD Plan includes Policy TNE-5, which encourages management of the coastline as a social, economic, and environmental resource for current and future generations. In addition, Policy TNE-4 prioritizes the implementation of nature-based climate change solutions wherever feasible, particularly nature-based shoreline protection methods that would protect areas subject to coastal flooding. The proposed Program includes shoreline restoration in the form of beach nourishment at West Sail Bay; construction of two sand retention rock groins and beach nourishment at Vacation Island NW; riprap repair and a cobble berm backfilled by beach nourishment at Vacation Island NE; raising the riprap revetment, burying crest of the revetment by sand, amenity improvements, and improved oyster habitat at Vacation Island SW; cobble berm with beach nourishment and relocating the sidewalk back by 30 feet at Bonita Cove; repair and raise crest height of riprap, add footpath parallel to riprap and improve oyster habitat at Ventura Cove Park; cobble breakwater, sheet wall groins, beach nourishment, and stormwater improvements and adding paths at Bahia Point; and extending the seawall southeast at Crown Point. The proposed Program seeks to implement nature-based solutions to flooding and sea level rise wherever feasible. As such, impacts would be **less than significant**.

Upland Habitat and Preserve Expansion Element

One of Climate Resilient SD Plan's main goals is to support and prioritize thriving natural environments and enhance their adaptability to climate impacts, including Policy TNE-1, which is to protect environmental quality and biodiversity, and Policy TNE-2, which is to protect and improve the integrity of open space, habitat, and parks. The proposed Program includes multiple upland habitat expansion sites including: Site No. 5: Fiesta Island Least Tern Preserve Area which proposes adding sand with shell fragments throughout the preserve to improve natural conditions for Least Tern nesting; Site No. 4: Fiesta Island North Central which proposes upland habitat restoration; Site No. 3: Fiesta Island

Near Youth Camping which proposes to establish Diegan Coastal Sage Scrub, Coastal Strand, and enhance the existing non-tidal coastal salt marsh vegetation; Site No. 1: Fiesta Island South which proposes establishing Diegan Coastal Sage Scrub, Coastal Strand, enhancing the minor occurrence of Southern Coastal Salt Marsh habitat, and establishing fencing/barrier along the designated new trail system; Site No. 1a: Cloverleaf which proposes exotic species removal and control, expansion and improvement of open sand areas, and revegetation of buffer areas; Site No. 3c: Triangle Restoration Area which proposes enhancing this area by partnering with the Audubon Society to remove invasive plants and add native plants; and Site No. 4d: South Shores East Area which proposes upland habitat expansion and preservation to protect the existing Nuttal's Lotus and adding in new native vegetation. The proposed upland habitat expansion at the numerous sites would support and prioritize thriving natural environments and enhance their adaptability to climate impacts. As such, the proposed Program would not conflict with the Climate Resilient SD Plan. Impacts would be **less than significant.**

Bicycle and Pedestrian Improvements Element

The Climate Resilient SD Plan encourages the increased use of walking and biking. The Climate Resilient SD Plan has expanding bicycle lane and sidewalk infrastructure as an adaptation strategy to plan for a resilient and equitable City. The proposed Program includes improving existing pedestrian and bicycle facilities through Mission Bay Park, including missing path connectivity, existing pavement conditions, and wayfinding signage. Improved walking and bicycling facilities for use by nearby existing residential communities and visitors to the region would help reduce vehicle miles traveled and, in turn, reduce GHG emissions. As such, the proposed Program would not conflict with the Climate Resilient SD Plan. Impacts would be **less than significant**.

Restoration of Seawall Bulkhead Element

The Climate Resilient SD Plan includes Policy TNE-5, which encourages management of the coastline as a social, economic, and environmental resource for current and future generations. The proposed Program includes seawall repairs to the Mission Beach seawall that have been damaged due to coastal erosion. The repairs would promote safer public recreational opportunities (biking, walking, etc.) for current and future generations along the coastline at the Mission Beach boardwalk. Impacts would be **less than significant**.

Pacific Beach Community Plan and Local Coastal Program Land Use Plan

The Pacific Beach Community Plan and Local Coastal Program LUP (Pacific Beach CP/LCP LUP) proposes specific goals, policies, and strategies for land use within Pacific Beach. The boundaries of the Pacific Beach CP/LCP LUP overlap with the northern Improvement Zone, specifically with the proposed shoreline restoration at Crown Point and the Rose Creek bicycle pathway improvements.

Wetland and Water Quality Improvements Element

The Pacific Beach CP/LCP LUP does not apply to the wetland and water quality improvements. Therefore, **no impact** would occur.

Restoration of Shoreline Element

The Pacific Beach CP/LCP LUP includes a goal to enhance existing public access to the beach, bay, and park areas along the shoreline to benefit community residents and visitors. The proposed Program includes shoreline restoration at Crown Point by extending the seawall southeast at Crown Point. This area is within the Pacific Beach CP/LCP LUP jurisdiction. The proposed restoration would improve the overall beach and shoreline quality and would not conflict with the Pacific Beach CP/LCP LUP. Impacts would be **less than significant**.

Upland Habitat and Preserve Expansion Element

The Pacific Beach CP/LCP LUP does not apply to the upland habitat expansion areas. Therefore, **no impact** would occur.

Bicycle and Pedestrian Improvements Element

The Circulation Element of the Pacific Beach CP/LCP LUP includes goals to promote safe and pleasant bicycle and pedestrian routes and to create safe, pleasant, and useful pedestrian and bicycle pathways (City of San Diego 2019b). The proposed Program would enhance bicycle and pedestrian pathways throughout the Improvement Zone, including the Rose Creek bicycle path improvements, and thus would not conflict with these overall goals. In addition, the Parks and Open Space Element of the Pacific Beach CP/LCP LUP includes goals to provide sufficient community park and recreational facilities, promote the development, maintenance and safety of beach, park, and bay recreational facilities, conserve and enhance the natural amenities of the community, preserve significant environmental resource areas, improve access to beach, bay, and park areas along the shoreline for residents and visitors, and maintain and enhance public views. The proposed Program would maintain and enhance recreational facilities, such as bicycle and pedestrian pathways in Mission Bay Park. The proposed bicycle and pedestrian improvements would not conflict with the Pacific Beach CP/LCP LUP, and impacts would be **less than significant**.

Restoration of Seawall Bulkhead Element

The Pacific Beach CP/LCP LUP does not apply to seawall improvements. Therefore, **no impact** would occur.

City of San Diego Mission Beach Precise Plan and Local Coastal Program Addendum

The City of San Diego Mission Beach PP and LCPA is a comprehensive guide toward the maintenance and future development of Mission Beach, offering 150 goals and recommendations to protect and preserve the community and its unique features. The Mission Beach PP and LCPA's was originally adopted July 11, 1974, and the Local Coastal Program Addendum was incorporated on Feb. 2, 1982 (City of San Diego 2017).

The Mission Beach PP and LCPA is applicable to the shoreline restoration efforts at Bonita Cove and West Sail Bay, the seawall restoration and pedestrian access improvement areas along Mission Beach, and any wayfinding improvements or deferred maintenance, which may occur within the boundaries of the Mission Beach PP and LCPA.

Wetland and Water Quality Improvements Element

The Mission Beach PP and LCPA does not apply to the wetlands and water quality portions. Therefore, **no impact** would occur.

Restoration of Shoreline Element

The Mission Beach PP and LCPA proposes that all beaches and open space in the community remain accessible to the public and be suitably maintained. The proposed Program includes shoreline restoration at West Sail Beach, Bahia Point, Ventura Cove Park, and Bonita Cove, which would result in extended beaches and nature-based shoreline solutions that reduce shoreline erosion and enhance overall shoreline/beach quality for the public.

The proposed restoration would improve the overall beach and shoreline quality and would not conflict with the Mission Beach PP and LCPA. Impacts would be **less than significant**.

Upland Habitat and Preserve Expansion Element

The Mission Beach PP and LCPA does not apply to the upland habitat expansion areas. Therefore, **no impact** would occur.

Bicycle and Pedestrian Improvements Element

The Mission Beach PP and LCPA does not apply to the bicycle and pedestrian improvements. Therefore, **no impact** would occur.

Restoration of Seawall Bulkhead Element

The Mission Beach PP and LCPA states that a means be devised to distribute beach users throughout the entire length of the beach. The proposed Program includes repairs to the existing Mission Beach seawall and adjacent boardwalk, which would enhance user safety and allow users to walk along the length of the beach. The proposed seawall improvements do not conflict with the Mission Beach PP and LCPA, and impacts would be **less than significant**.

City of San Diego Ocean Beach Community Plan and Local Coastal Program

Wetland and Water Quality Improvements Element

The Ocean Beach CP and LCP does not apply to the wetland and water quality improvements. Therefore, no impact would occur.

Restoration of Shoreline Element

The Ocean Beach CP and LCP does not apply to the shoreline restoration improvements. Therefore, **no impact** would occur.

Upland Habitat and Preserve Expansion Element

The Ocean Beach CP and LCP does not apply to the upland habitat expansion improvements. Therefore, **no impact** would occur.

Bicycle and Pedestrian Improvements Element

The Ocean Beach CP and LCP states that street system should be enhanced for bicycles and pedestrians to improve local mobility. The proposed Program includes pathway improvements for pedestrians and bicyclists at the Ocean Beach Bike Path. The proposed Program would not conflict with the Ocean Beach CP and LCP and impacts are **less than significant.**

Restoration of Seawall Bulkhead Element

The Ocean Beach CP and LCP does not apply to the seawall improvements. Therefore, **no impact** would occur.

Multiple Species Conservation Program

The City is a participant in the San Diego MSCP, a comprehensive, regional long-term habitat conservation program designed to provide permit issuance authority for take of covered species to the local regulatory agencies. The MSCP SAP addresses habitat and species conservation within

approximately 900 square miles in the southwestern portion of San Diego County. It serves as an approved habitat conservation plan pursuant to an approved Natural Communities Conservation Plan in accordance with the state Natural Communities Conservation Planning Act.

The MSCP SAP establishes a preserve system designed to conserve large blocks of interconnected habitat having high biological value that are delineated in MHPAs. The City of San Diego MSCP SAP (City of San Diego 1997) encompasses 206,124 acres within the MSCP SAP area. The MSCP SAP is characterized by urban land uses with approximately three-quarters of the SAP either built out or retained as open space/park system.

The City MHPA is a "hard line" preserve developed by the City in cooperation with the wildlife agencies, property owners, developers, and environmental groups. The MHPA identifies biological core resource areas and corridors targeted for conservation, in which only limited development may occur (City of San Diego 1997).

The MSCP SAP identifies 85 plants and animals to be "covered" under the plan (termed Covered Species). Many of these Covered Species are subject to one or more protective designations under state and/or federal law and some are endemic to San Diego. The MSCP SAP seeks to provide adequate habitat in the preserve to maintain ecosystem functions and persistence of extant populations of the 85 Covered Species while also allowing participating landowners "take" of Covered Species on lands located outside of the preserve. The purpose of the MSCP SAP is to address species conservation on a regional level and thereby avoid project-by-project biological mitigation, which tends to fragment habitat.

Wetland and Water Quality Improvements Element

The MSCP SAP has planning policies and design guidelines. The Program proposes wetland and water quality improvements including a tidal channel to improve water quality, creation of wetland habitat, and fencing off of an area to preserve the environmental quality of the vegetation following construction at North Fiesta Island; subtidal channels, salt marsh wetland, a berm area, oyster bag slope, and fencing off of an area to preserve the environmental quality of the vegetation following construction at Cudahy Creek Cove; and open channel, salt marsh wetland, dune features, upland habitat, and a bridge for park visitors at Tecolote Creek. Implementation of the improvements at North Fiesta Island, Tecolote Creek and Fiesta Island Causeway, and Cudahy Creek Cove would result in impacts to aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. The Implementation Framework (Appendix B) describes in Section 4.3.1 the anticipated regulatory permits that would be required for each to the shoreline restoration improvements identified in the Program. The City would pursue the appropriate regulatory permit at the time of individual component initiation. Impacts to jurisdictional resources are considered significant but

would be adequately offset by shoreline restoration that results in no-net-loss of City wetlands and enhanced function (e.g., greater shoreline stability). The proposed Program does not conflict with the MSCP SAP. Impacts would be **less than significant**.

Restoration of Shoreline Element

The MSCP SAP has planning policies and design guidelines. The proposed Program includes shoreline restoration in the form of beach nourishment at West Sail Bay; construction of two sand retention rock groins and beach nourishment at Vacation Island NW; riprap repair and a cobble berm backfilled by beach nourishment at Vacation Island NE; raising the riprap revetment, burying crest of the revetment by sand, amenity improvements, and improved oyster habitat at Vacation Island SW; cobble berm with beach nourishment and relocating the sidewalk back by 30 feet at Bonita Cove; repair and raise crest height of riprap, add footpath parallel to riprap and improve oyster habitat at Ventura Cove Park; cobble breakwater, sheet wall groins, beach nourishment, and stormwater improvements and adding paths at Bahia Point; and extending the seawall southeast at Crown Point. Implementation of the improvements at West Sail Bay, Vacation Island NW, Vacation Island NE, Vacation Island SW, Ventura Cove Park, Crown Point, Bonita Cove, and Bahia Point would result in direct impacts aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. The Implementation Framework (Appendix B) describes in Section 4.3.3 the anticipated regulatory permits that would be required for each to the shoreline restoration improvements identified in the Program. The City would pursue the appropriate regulatory permit at the time of individual component initiation. Impacts to jurisdictional resources are considered significant but would be adequately offset by shoreline restoration that results in no-net-loss of City wetlands and enhanced function (e.g., greater shoreline stability). The proposed Shoreline Restoration Element does not conflict with the MSCP SAP. Impacts would be **less than significant**.

Upland Habitat and Preserve Expansion Element

The MSCP SAP has planning policies and design guidelines. The proposed Program includes multiple upland habitat expansion sites as described in this section. Implementation of the component at Site No. 1- Fiesta Island South, Site No. 2 - Fiesta Island North Central, Site No. 3 - Fiesta Island Near Youth Camping, Site No. 5b Triangle Enhancement Area and Site No. 5c - South Shores East Restoration and Enhancement Area would result in impacts to sensitive vegetation communities. However, habitat restoration proposed for this element and Program-wide is expected to benefit species with confirmed occurrences in the Program area in terms of amount and function of suitable habitat, population size, and conditions. Implementation of the component at Site No. 3 - Fiesta Island Near Youth Camping and Site No. 4 - Fiesta Island Least Tern Preserve Area would result in direct impacts to aquatic resources potentially under the jurisdiction of USACE, RWQCB, CCC, and/or the City. However, The Implementation Framework (Appendix B) describes in Section 4.3.2 the anticipated

regulatory permits that would be required for each of the upland expansion and restoration components identified in the Program. The City would pursue the appropriate regulatory permit at the time of individual component initiation. Impacts to jurisdictional resources are considered significant but would be adequately offset by shoreline restoration that results in no-net-loss of City wetlands and enhanced function (e.g., greater shoreline stability). The proposed Program does not conflict with the MSCP SAP. Impacts would be **less than significant**.

Bicycle and Pedestrian Improvements Element

The City of San Diego MSCP SAP has planning policies and design guidelines. The proposed Program includes bicycle and pedestrian improvements at the Rose Creek Bike Path, Fiesta Island Causeway, and Ocean Beach Bike Path. Implementation of the component at the Rose Creek Bike Path and Fiesta Island Causeway Bike Path would result in direct impacts to aquatic resources potentially under the jurisdiction of USACE, RWQCB, CDFW, CCC, and/or the City. However, the City would obtain all required permits for impacts to jurisdictional aquatic resources prior to initiation. The Implementation Framework (Appendix B) describes in Section 4.3.5 the anticipated regulatory permits that would be required for each to the bike/pedestrian improvements identified in the Program. The City would pursue the appropriate regulatory permit at the time of individual component initiation. The Program conforms with Area Specific Management Directives for the Urban Area, Mission Bay Park, and covered species conditions, primarily by ensuring no-net-loss of covered species or habitats within the MHPA in the Program area and substantial functional uplift through habitat restoration of wetland and upland communities. The Bicycle and Pedestrian Improvements Element does not conflict with the MSCP SAP. Impacts would be **less than significant**.

Restoration of Seawall Bulkhead Element

The MSCP SAP has planning policies and design guidelines. The proposed Restoration of Seawall Bulkhead Element includes repairs to the existing Mission Beach seawall and adjacent boardwalk, which would enhance user safety and allow users to walk along the length of the beach. There are no impacts to vegetation communities, jurisdictional aquatic resources, or sensitive plant species. The proposed element does not conflict with the MSCP SAP. Impacts would be **less than significant**.

San Diego Association of Governments' 2021 Regional Plan

The 2021 San Diego Association of Governments (SANDAG) Regional Plan provides transformational strategies, known as the Five Big Moves, to advance the San Diego region toward sustainability, reduce GHG emissions, and address economic and societal inequities and public health and safety issues. The interdependent strategies are designed to encourage the increased use of zero-emission vehicles, walking, biking, and pursuing other forms of active or alternative transportation. Safe and convenient places to park, as well as charging stations for electric vehicles, e-bikes, scooters, and other electric

rideables, would be offered, along with incentives to purchase those vehicles (SANDAG 2021a). The SANDAG Draft Proposed 2025 Regional Plan Transportation Network (2025 Draft Plan) is also available, although not finalized, and includes a summary of public outreach efforts, a glossary of the different project types of the forthcoming 2025 Regional Plan, and recurring feedback and impact for the various areas in the region (i.e., North County, Central and East County, South County; SANDAG 2025).

Wetland and Water Quality Improvements Element

The 2021 SANDAG Regional Plan and the 2025 Draft Plan do not conflict with the wetland and water quality improvements. Therefore, **no impact** would occur.

Restoration of Shoreline Element

The 2021 SANDAG Regional Plan and the 2025 Draft Plan do not apply to shoreline restoration improvements. Therefore, **no impact** would occur.

Upland Habitat and Preserve Expansion Element

The 2021 SANDAG Regional Plan describes the Habitat Conservation Vision which includes protection, connection, and respect for local native species and habitat, where appropriate. The 2025 Draft Plan has not included or mapped any habitat information yet. The proposed Program includes upland habitat expansion and preservation to support continuous habitat corridors that can add space and improve stability for sensitive species like the California Least Tern and Nuttall's lotus. As such, the proposed Program would not conflict with the 2021 SANDAG Regional Plan nor the 2025 Draft Plan. Impacts would be **less than significant**.

Bicycle and Pedestrian Improvements Element

The 2021 SANDAG Regional Plan encourages the increased use of walking and biking. The 2021 Regional Plan contains the Regional Bike Network that overlaps with the Rose Creek and Fiesta Island Causeway bicycle path improvements, as well as wayfinding improvements as part of the bicycle path improvements, which may be included within the boundaries of the Regional Bike Network, The 2025 Draft Plan states that they are considering expanding the bikeways across the region. The proposed Program includes improving existing pedestrian and bicycle facilities through Mission Bay Park, including missing path connectivity, existing pavement conditions, and wayfinding signage. Improved walking and bicycling facilities for use by nearby existing residential communities and visitors to the region would help reduce vehicle miles traveled and, in turn, reduce GHG emissions. As such, the proposed Program would not conflict with the 2021 SANDAG Regional Plan nor the 2025 Draft Plan. Impacts would be **less than significant**.

Restoration of Seawall Bulkhead Element

The 2021 SANDAG Regional Plan and the 2025 Draft Plan do not apply to the seawall improvements. Therefore, **no impact** would occur.

Draft Coastal Resilience Master Plan

The main objectives of the Draft CRMP are (1) prioritizing nature-based climate change solutions wherever feasible, consistent with Climate Resilient SD Policy TNE-3; (2) addressing the effects of sea level rise and coastal flooding while leveraging additional co-benefits of nature-based solutions; (3) protecting and enhancing critical coastal habitat and associated wildlife from the impacts of climate change; (4) protecting and enhancing recreational opportunities; (5) protecting historical/ archeological/tribal cultural resources and incorporating Indigenous Knowledge into resilience efforts and adaptation strategies; and (6) increasing coastal access for all, especially Communities of Concern. In particular, the Master Plan proposes two concepts for Mission Beach: a sand dune concept and a perched beach concept.

Wetland and Water Quality Improvements Element

The Draft CRMP identifies wetland creation/restoration as a way to help mitigate flooding, provide habitat, improve water quality, and absorb wave energy. The Program includes wetland and water quality improvements at North Fiesta Island, Cudahy Creek, and Tecolote Creek and Fiesta Island Causeway, which are combined together as one component. These three components of the Wetland and Water Quality Improvements Element would enhance existing wetland habitat and create new wetland habitat to benefit water quality and species habitat. As such, the proposed Program does not conflict with the CRMP, and impacts would be **less than significant**.

Restoration of Shoreline Element

The Draft CRMP seeks to look beyond coastal engineering techniques to implement nature-based solutions for priority projects along the San Diego coastline. The Program includes shoreline restoration in the form of beach nourishment at West Sail Bay; construction of two sand retention rock groins and beach nourishment at Vacation Island NW; riprap repair and a cobble berm backfilled by beach nourishment at Vacation Island NE; raising the riprap revetment, burying crest of the revetment by sand, amenity improvements, and improved oyster habitat at Vacation Island SW; cobble berm with beach nourishment and relocating the sidewalk back by 30 feet at Bonita Cove; repair and raise crest height of riprap, add footpath parallel to riprap and improve oyster habitat at Ventura Cove Park; cobble breakwater, sheet wall groins, beach nourishment, and stormwater improvements and adding paths at Bahia Point; and extending the seawall southeast at Crown Point. Of these proposed restoration and improvement components, the cobble berm and oyster habitat

are considered nature-based solutions because they mimic nature to provide protection from coastal erosion. To illustrate this point, a cobble berm mimics a natural berm beach by providing protection and absorbing wave energy as the berm reshapes in response to wave conditions. A riprap revetment is hard shoreline armoring (not a nature-based solution) as it consists of large boulders that fix the shoreline in place and reflect wave energy, causing the beach to narrow as sea level rises. The proposed Program seeks to implement the described objectives where feasible; as such, the proposed Program does not conflict with the Draft CRMP, and impacts would be **less than significant.**

Upland Habitat and Preserve Expansion Element

The Draft CRMP identifies living levees/ecotone slopes as incorporating a levee that slopes gently downwards towards the water body in the same way that the land naturally would, allowing for a gradual transition from open water to transitional upland habitat. The Program includes multiple upland habitat expansion sites for enhancement, restoration, and expansion of existing upland habitat in high opportunity areas. Three sites are identified for habitat expansion along the San Diego River; Site No. 5a- Cloverleaf Enhancement Area which proposes exotic species removal and control, expansion and improvement of open sand areas, and revegetation of buffer areas; Site No. 5b - Triangle Restoration Area which proposes enhancing this area by removing invasive plants and adding native plants; and Site 5c - South Shores East Restoration and Enhancement Area which proposes upland habitat expansion and preservation to protect the existing Nuttall's Lotus and add in new native vegetation. The proposed upland habitat expansion at the numerous sites would support and prioritize thriving natural environments and enhance their adaptability to climate impacts. The proposed Program does not conflict with the Draft CRMP, and impacts would be **less than significant**.

Bicycle and Pedestrian Improvements Element

The Draft CRMP considers ways to enhance coastal access for all community members, including pedestrian and bicycle infrastructure. The proposed bicycle and pedestrian path improvements would improve connectivity, address poor paving conditions, and safety issues. As such, the proposed improvements are consistent with the Draft CRMP and impacts would be **less than significant**.

Restoration of Seawall Bulkhead Element

The Draft CRMP seeks to look beyond coastal engineering techniques to implement nature-based solutions for priority projects along the San Diego coastline. In particular, the Draft CRMP proposes two concepts for Mission Beach: a sand dune concept (D-1) for Mission Beach, bounded by Ventura Place to the north and San Fernando place to the south, and a perched beach concept (D-2) which swaps out grass at Mission Beach Park for a perched sand beach. The Restoration of Seawall Bulkhead Element includes seawall and boardwalk improvements at Mission Beach, but would be limited to the seawall structure, and would not include the area bounded by Ventura Place to the north and

San Fernando Place to the south (where the two proposed Coastal Resilience concepts are). As such, the proposed seawall improvements at Mission Beach would not conflict with the sand dune or perched beach concepts of the Draft CRMP and impacts would be **less than significant**.

Issue 2: Would the project lead to the development or conversion of General Plan or Community Plan-designated open space or prime farmland to a more intensive land use, resulting in a physical division of the community?

The Improvement Zone is classified by the California Department of Conservation Farmland Mapping and Monitoring Program map as Urban and Built-Up Land and Other Land. Therefore, the Improvement Zone is not designated as Prime Farmland. The bicycle and pedestrian improvements are designated as Park, Open Space, & Recreation in the City's General Plan. The deferred maintenance improvements are in areas designated as Park, Open Space, & Recreation in the City's General Plan. The seawall restoration improvements at Mission Beach are designated as Residential and Commercial Employment, Retail, & Services. The shoreline restoration improvements are in areas designated as Park, Open Space, & Recreation in the City's General Plan. The upland habitat expansion improvements are in areas designated as Park, Open Space, & Recreation in the City's General Plan. The wayfinding improvements are in areas designated as Park, Open Space, & Recreation in the City's General Plan. The wetland and water quality improvements are in areas designated as Park, Open Space, & Recreation in the City's General Plan (City of San Diego 2024b). The proposed improvements would result in the redevelopment of bicycle and pedestrian pathways on and adjacent to paved areas, deferred maintenance on park assets, seawall improvements, shoreline restoration, enhanced upland habitat areas, wayfinding improvements, and creation and restoration of wetlands. The proposed Program would not result in or propose the conversion of open space to a more intensive land use. Therefore, **no impact** would occur.

Issue 3: Would the project conflict with the provisions of the City's Multiple Species Conservation Program (MSCP) Subarea Plan or other approved local, regional, or state habitat conservation plan?

MSCP Subarea Plan

The MSCP SAP designates land preserved for conservation as the MHPA. The following Program components are located within or adjacent to the MHPA as delineated within the MSCP SAP: North Fiesta Island Wetland component and Fiesta Island Site No. 4 – Least Tern Preserve Area component. These wetland and water quality improvement and upland habitat restoration areas in North Fiesta Island are within the MHPA. Tecolote Creek and Fiesta Island Causeway Wetland component is partially within the MHPA (the portion associated with Tecolote Creek outfall into Mission Bay is within the MHPA; however, the causeway portion of the Program is outside the MHPA); Sea World Drive/San

Diego River Sites No. 5a and 5b are upland habitat enhancement areas within the MHPA. Lastly, Rose Creek and Ocean Beach Bike Paths include improvements to existing infrastructure, mostly adjacent to the MHPA with minor potential encroachment on the edge of the MHPA.

The Program has been designed to comply with the MSCP SAP's general management directives and specific management policies and directives for the Urban Area and Appendix A of the MSCP SAP (City of San Diego 1997). Therefore, impacts would be **less than significant**.

4.9.5 MITIGATION FRAMEWORK

Mitigation measures are provided in Sections 4.3, Biological Resources, and 4.6, Historical Resources, that would address the potential impacts of the Program on the environment**.** Refer to Sections 4.3.5 and 4.6.5, Mitigation, for a full description of each mitigation measure.

4.9.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Issue 1: Conflicts with Applicable Plans

The Program would not conflict with environmental goals, objectives, or guidelines of a General Plan or Community Plan or other applicable land use plan or regulation. While inconsistencies occur specifically with historic resources and the Historic Resources Regulations as part of the LDC, City processes will be complied with during improvement project implementation that would avoid conflict with applicable plans and indirect or secondary impacts to the environment. Impacts would be **less than significant**.

Issue 2: Conversion of Open Space or Farmland

The Program would not lead to the development or conversion of General Plan or CP-designated Open Space or Prime Farmland to a more intensive land use, resulting in a physical division of the community. Therefore, no impact would occur, and no mitigation is required.

Issue 3: Conflicts with the MSCP Subarea Plan

The Program would not conflict with the provisions of the MSCP SAP or any other approved local, regional, or state Habitat Conservation Plan. Therefore, **no impact** would occur and no mitigation.

SOURCE: Maxar 2023; SanGIS 2024; City of San Diego 2024

DUDEK

0 500 1,000 Feet

FIGURE 4.9-1

Upland Habitat Expansion and Preservation - Sea World Drive Concept Areas

Mission Bay Park Improvements Program EIR

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4.10 NOISE

This section describes the existing noise conditions of the Mission Bay Park Improvement Zone (Improvement Zone) and vicinity, identifies associated regulatory requirements, evaluates potential impacts based on the criteria provided in the City of San Diego's (City) Significance Determination Thresholds (City of San Diego 2022a), and identifies mitigation measures related to implementation of the proposed Mission Bay Park Improvements Program (Program).

4.10.1 EXISTING CONDITIONS

The following section provides a brief discussion of fundamental noise concepts and terminology and contextualizes the environmental setting of the Program in relation to noise.

Fundamentals of Noise and Vibration

Although the terms may be used interchangeably in the right context, "sound" is defined as any gas or fluid pressure variation detected by the human ear, and "noise" is unwanted sound. The preferred unit for measuring sound is the decibel (dB), which expresses the ratio of sound pressures to a reference value logarithmically, enabling a wide range of audible sound to be evaluated and discussed conveniently. On the low end of this range, 0 dB is not the absence of sound energy, but instead corresponds approximately to the threshold of average healthy human hearing; on the upper end, 120–140 dB corresponds to an average person's threshold of pain (Caltrans 2013).

The human ear is not equally responsive to all frequencies of the audible sound spectrum. An electronic filter is normally used when taking sound measurements that de-emphasizes certain frequencies in a manner that mimics the human ear's response to sound; this method is referred to as A-weighting. Sound levels expressed under the A-weighted system are sometimes designated as A-weighted decibels (dBA). All sound levels discussed in this report are A-weighted.

The equivalent continuous sound level (L_{eq}) is a single dB value which, if held constant during the specified time period, would represent the same total acoustical energy of a fluctuating noise level over that same time period. L_{eq} values are commonly expressed for periods of 1 hour, but longer or shorter time periods may be specified. Another descriptor is maximum sound level, which is the greatest sound level measured during a designated time interval or event. The maximum sound level (L_{max}) is the highest measured level and often called the ceiling of a measurement period.

The day-night average noise level (L_{dn}) and Community Noise Equivalent Level (CNEL) descriptors always represent 24-hour periods, often on an annualized basis. The L_{dn} and CNEL values differ from L_{eq} because they apply a time weighted dB adjustment designed to emphasize noise events that occur during the evening and nighttime hours (when speech and sleep disturbance is of more concern).

"Time weighted" refers to the fact that L_{dn} and CNEL penalize noise that occurs during certain sensitive periods. In the case of CNEL, noise occurring during the daytime (7:00 a.m.–7:00 p.m.) receives no penalty. Noise during the evening (7:00 p.m.–10:00 p.m.) is penalized by adding 5 dB, while nighttime (10:00 p.m.–7:00 a.m.) noise is penalized by adding 10 dB. L_{dn} differs from CNEL in that the daytime period is defined as 7:00 a.m.–10:00 p.m., thus eliminating the evening period. L_{dn} and CNEL are the predominant criteria used to measure roadway noise affecting residential receptors. These two metrics generally differ from one another by no more than 0.5 dB to 1 dB and, as such, are often treated as equivalent to one another.

Vibration is an oscillatory motion through a solid medium in which the motion's amplitude can be described in terms of displacement, velocity, or acceleration. Vibration can be a serious concern, causing buildings to shake and rumbling sounds to be heard. In contrast to noise, vibration is not a common environmental problem. It is unusual for vibration from sources such as buses and trucks to be perceptible, even in locations close to major roads. Some common sources of vibration are trains, buses on rough roads, and construction activities, such as blasting, pile driving, and heavy earthmoving equipment.

Several different methods are used to quantify vibration. Peak particle velocity (PPV), expressed in inches per second (ips), is defined as the maximum instantaneous peak of the vibration signal and is most frequently used to describe vibration impacts to buildings. The root mean square amplitude is most frequently used to describe the effect of vibration on the human body and is defined as the average of the squared amplitude of the signal.

In-depth definitions of additional common acoustical descriptors and terms that may assist the reader in framing the evaluation and discussion of noise in this Program Environmental Impact Report (EIR) section are provided in Section 2.1 of the Noise Technical Report for the proposed Program, included as Appendix R to this EIR.

Regional and Local Setting

The Program is located within the Improvement Zone, as defined in City Charter Section 55.2 (refer to Section 3.2 of Chapter 3, Project Description, for more information). Regionally, the Improvement Zone is located in the westernmost portion of central City of San Diego, as shown in Figure 3-1, Mission Bay Park Improvements Program Location, in Chapter 3, Project Description. The Improvement Zone is located at the coastline in the City of San Diego bounded by the communities of Pacific Beach to the north, Ocean Beach to the south, Mission Beach to the west, and Interstate (I) 5 to the east. The Improvement Zone encompasses the 4,235-acre Mission Bay Park along with additional areas in all directions; the specific extent of the Improvement Zone is shown in Figure 3-3, Mission Bay Park Improvements Program Overview and Elements Locations, in Chapter 3. Within the Improvement

Zone are various identified sites for known discrete improvements within the Program to be analyzed under this EIR. An overview map of these elements is provided in Figure 3-3 in Chapter 3. Specific details of each location are described for each element in Section 3.4 of Chapter 3, Project Description. Regional access to the Improvement Zone is provided by I-5 from the north and south, and I-8 from the east. Access to each individual components of the Program is provided by local roadways throughout and surrounding Mission Bay Park.

Environmental Setting

Sensitive Receptors

Noise- and vibration-sensitive land uses are typically locations where people reside or where the presence of unwanted sound could adversely affect the use of the land. Residences, schools, hospitals, guest lodging, libraries, and some passive recreation areas would be considered noise- and vibration-sensitive and may warrant unique measures for protection from intruding noise. Existing sensitive receptors in the vicinity of the Program location consist of residential single- and multi-family uses, guest lodging (i.e., hotels, resorts, motels), and schools, located across Mission Beach, Mission Bay Park, Pacific Beach, Bay Park, Morena, and Ocean Beach. At these residentially zoned land uses, the City's construction noise standard (75 dBA L_{eq} over a 12-hour period) applies. These nearby residential sensitive receptors studied herein have the greatest potential to be impacted by construction and/or operation of the various Program elements.

Existing Noise Conditions

Field measurements of sound pressure level were conducted near and within the Program vicinity on February 11, 2025, to quantify and characterize the existing outdoor ambient sound levels. Table 4.10-1 provides the location, date, and time at which these baseline sound level measurements were performed by an attending Dudek field investigator using a Rion-branded Model NL-62 sound level meter equipped with a 0.5-inch, pre-polarized condenser microphone with pre-amplifier. The sound level meter meets the current American National Standards Institute standard for a Type 1 (Precision Grade) sound level meter. The accuracy of the sound level meter was verified using a field calibrator before and after the measurements, and the measurements were conducted with the microphone positioned approximately 5 feet above the ground.

Twelve short-term sound level measurement locations (ST1–ST12) that represent existing noise-sensitive receivers were selected near and within the Program location. These locations, depicted as receivers ST1–ST12 in Figure 4.10-1, Outdoor Ambient Sound Level Measurement Locations, were selected to characterize the baseline outdoor ambient sound levels for City of San Diego residential noise-sensitive receptors. The measured L_{eq} and maximum noise levels are provided in Table 4.10-1.

The primary sound sources at the sites identified in Table 4.10-1 consisted of traffic along adjacent roadways, aircraft noise, and conversations/yelling.

Table 4.10-1
Measured Baseline Outdoor Ambient Sound Levels

Site	Location	Time	Average Noise Levels (dBA)	
			L_{eq}	L_{max}
ST1	Intersection of Capistrano Place and Ocean Front Walk near seawall	2025-02-11, 10:12 AM to 10:27 AM	63.7	70.6
ST2	Near Bonita Cove along Bayside Walk	2025-02-11, 10:35 AM to 10:50 AM	60.1	70.0
ST3	Near Ventura Cove adjacent to Bahia Resort Hotel parking lot	2025-02-11, 10:57 AM to 11:12 AM	59.7	70.4
ST4	Intersection of Seagirt Court and Strandway	2025-02-11, 11:23 AM to 11:38 AM	56.9	58.3
ST5	Immediately south of Catamaran Resort Hotel and Spa near Windemere Court	2025-02-11, 11:53 AM to 12:08 PM	59.1	62.7
ST6	Western edge of Crown Point at intersection of Riviera Drive and Edge Cliff Drive	2025-02-11, 12:19 PM to 12:34 PM	56.9	62.9
ST7	Northwestern edge of Vacation Isle along Sands Drive	2025-02-11, 12:42 PM to 12:57 PM	57.1	63.1
ST8	Along Rose Creek Trail at the western end of Magnolia Avenue	2025-02-11, 01:28 PM to 01:43 PM	54.8	58.5
ST9	East of Morena Boulevard along Lister Street	2025-02-11, 01:51 PM to 02:06 PM	68.4	71.0
ST10	South of Playa Pacifica Park and north of San Diego Mission Bay Resort	2025-02-11, 02:15 PM to 02:30 PM	54.2	54.9
ST11	Southern boundary of Ocean Beach Athletic Area Robb Field	2025-02-11, 02:43 PM to 02:58 PM	50.3	56.3
ST12	Along Ocean Beach Bike Path/San Diego River Bikeway, north of Ebb Tide Motel	2025-02-11, 03:05 PM to 03:20 PM	46.7	53.5

Source: Appendix R.
Notes: dBA = A-weighted decibels; L_{eq} = average equivalent noise level; L_{max} = maximum noise level.

As shown in Table 4.10-1, the measured sound pressure level ranged from approximately 46.7 dBA L_{eq} at ST12 to 68.4 dBA L_{eq} at ST9. Beyond the summarized information presented in Table 4.10-1, detailed sound measurement data are included in the appendices to the Noise Technical Report, Appendix R to this EIR.

Generally, the measured samples of daytime L_{eq} agree with expectations: at ST1, ST2, and ST9, L_{eq} values are above 60 dBA due largely to being close to moderately trafficked roadways (i.e., West Mission Boulevard, Morena Boulevard) and within the flight path of San Diego International Airport, whereas ST11 and ST12 were further from local roadways (i.e., Sunset Cliffs Boulevard, West Point Loma Boulevard) and within neighborhood parks.

4.10.2 RELEVANT PLANS, POLICIES, AND ORDINANCES

Federal

There are no applicable federal regulations related to noise and vibration that would apply to the Program. However, Federal Transit Administration (FTA) offers guidance criteria for the assessment of construction noise at commercial and industrial receiving land uses, as well as ground-borne vibration standards with respect to building damage risk (FTA 2018). Because the Program implementation would be located entirely within the City of San Diego, the City's applicable regulations and relevant planning guidelines are described in this section.

State

California Department of Transportation

In its Transportation and Construction Vibration Guidance Manual (Caltrans 2020), the California Department of Transportation (Caltrans) recommends 0.5 ips PPV as a threshold for the avoidance of structural damage to typical newer residential buildings exposed to continuous or frequent intermittent sources of ground-borne vibration. For transient vibration events, such as blasting, the damage risk threshold would be 1.0 ips PPV (Caltrans 2020) at the same type of newer residential structures. For older structures, these guidance thresholds would be more stringent: 0.3 ips PPV for continuous/intermittent vibration sources, and 0.5 ips PPV for transient vibration events. With respect to human annoyance, Caltrans guidance indicates that building occupants exposed to continuous ground-borne vibration in the range of 0.1 ips PPV ("strongly perceptible") to 0.4 ips PPV ("severe") would find it "annoying" at 0.2 ips PPV and "unpleasant" at the 0.4 ips PPV value. Although these Caltrans guidance thresholds are not regulations, they can serve as quantified standards in the absence of such limits at the local jurisdictional level.

Local

City of San Diego Noise Ordinance

The following are summarized portions or reproductions of relevant City of San Diego noise regulations, policies, and guidance with respect to assessing noise impact assessment for the proposed Program.

City of San Diego Municipal Code 59.6.0401 (Noise Ordinance, Sound Level Limits)

It shall be unlawful for any person to cause noise by any means to the extent that the 1-hour average sound level exceeds the applicable limits given in Table 4.10-2, Applicable Noise Limits, at any location in the City of San Diego on or beyond the boundaries of the property on which the noise is produced. 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.

Table 4.10-2
Applicable Noise Limits

Land Use	Time of Day	One-Hour A-Weighted Average Sound Level (dBA)
Single-family residential	7:00 a.m. to 7:00 p.m.	50
	7:00 p.m. to 10:00 p.m.	45
	10:00 p.m. to 7:00 a.m.	40
Multi-family residential (up to a maximum density of 1/2,000)	7:00 a.m. to 7:00 p.m.	55
	7:00 p.m. to 10:00 p.m.	50
	10:00 p.m. to 7:00 a.m.	45
All other residential	7:00 a.m. to 7:00 p.m.	60
	7:00 p.m. to 10:00 p.m.	55
	10:00 p.m. to 7:00 a.m.	50
Commercial	7:00 a.m. to 7:00 p.m.	65
	7:00 p.m. to 10:00 p.m.	60
	10:00 p.m. to 7:00 a.m.	60
Industrial or agricultural	Any time	75

Note: dBA = A-weighted decibels.

City of San Diego Municipal Code 59.5.0402 (b) (Noise Ordinance, Motor Vehicles)

Section 59.5.0402 (b) of the San Diego Municipal Code states that nothing in the Noise Ordinance section shall apply to authorized emergency vehicles when being used in emergency situations, including the blowing of sirens and/or horns.

City of San Diego Municipal Code 59.5.0404 (Noise Ordinance, Construction Noise)

A. It shall be unlawful for any person, between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, to erect, construct, demolish, excavate for, alter or repair any building or structure in such a manner as to create disturbing, excessive or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator. In granting such permit, the Administrator shall consider whether the construction noise in the vicinity of the proposed work site would be less objectionable at night than during the daytime because of different population densities or different neighboring activities; whether obstruction and interference with traffic particularly on streets of major importance, would be less objectionable at night than during the daytime; whether the type of work to be performed emits noises at such a low level as to not cause significant disturbances in the vicinity of the work site; the character and nature of the neighborhood of the proposed work site; whether great economic hardship would occur if the work were spread over a longer time; whether proposed night work is in the general public interest; and he shall prescribe such conditions, working times, types of construction equipment to be used, and permissible noise levels as he deems to be required in the public interest.

B. Except as provided in subsection C. hereof, it shall be unlawful for any person, including the City of San Diego, to conduct any construction activity so as to cause, at or beyond the property lines of any property zoned residential, an average sound level greater than 75 decibels during the 12-hour period from 7:00 a.m. to 7:00 p.m.

C. The provisions of subsection B. of this section shall not apply to construction equipment used in connection with emergency work, provided the Administrator is notified within 48 hours after commencement of work.

City of San Diego General Plan

The City's General Plan Noise Element identifies compatible exterior noise levels for various land use types (City of San Diego 2024b). The maximum allowable noise exposure varies depending on the land use. The maximum acceptable exterior noise level for residential uses and other noise-sensitive uses

(including schools, libraries, hospitals, daycare facilities, hotels, motels) is 65 dBA CNEL. Table 4.10-3 reproduces Table NE-3 from the City's General Plan Noise Element.

Table 4.10-3
City of San Diego Land Use – Noise Compatibility Guidelines

Land Use Category	Exterior Noise Exposure (dBA CNEL)				
	55–60	*60–65*	*65–70*	*70–75*	*75–80*
Parks and Recreational					
Parks, Active and Passive Recreation					
Outdoor Spectator Sports, Golf Courses; Water Recreational Facilities; Indoor Recreation Facilities					
Agricultural					
Crop Raising and Farming; Community Gardens, Aquaculture, Dairies; Horticulture Nurseries and Greenhouses; Animal Raising, Maintain and Keeping; Commercial Stables					
Residential					
Single Dwelling Units; Mobile Homes		45			
Multiple Dwelling Units*		45	45*		
Institutional					
Hospitals; Nursing Facilities; Intermediate Care Facilities; Kindergarten through Grade 12Educational Facilities; Libraries; Museums; Child Care Facilities		45			
Other Educational Facilities including Vocational/Trade Schools and Colleges and Universities		45	45		
Cemeteries					
Retail Sales					
Building Supplies/Equipment; Food, Beverages and Groceries; Pets and Pet Supplies; Sundries, Pharmaceutical, and Convenience Sales; Wearing Apparel and Accessories			50	50	
Commercial Services					
Building Services; Business Support; Eating and Drinking; Financial Institutions; Maintenance and Repair; Personal Services; Assembly and Entertainment (includes public and religious assembly); Radio and Television Studios; Golf Course Support			50	50	
Visitor Accommodations		45	45	45	

Table 4.10-3
City of San Diego Land Use – Noise Compatibility Guidelines

Land Use Category				Exterior Noise Exposure (dBA CNEL)				
				55–60	*60–65*	*65–70*	*70–75*	*75–80*
Offices								
Business and Professional; Government; Medical, Dental and Health Practitioner; Regional and Corporate Headquarters						50	50	
Vehicle and Vehicular Equipment Sales and Services Use								
Commercial or Personal Vehicle Repair and Maintenance; Commercial or Personal Vehicle Sales and Rentals; Vehicle Equipment and Supplies Sales and Rentals; Vehicle Parking								
Wholesale, Distribution, Storage Use Category								
Equipment and Materials Storage Yards; Moving and Storage Facilities; Warehouse; Wholesale Distribution								
Industrial								
Heavy Manufacturing; Light Manufacturing; Marine Industry; Trucking and Transportation Terminals; Mining and Extractive Industries								
Research and Development							50	
Table Shading Key								
	Compatible	Indoor Uses	Standard construction methods should attenuate exterior noise to an acceptable indoor noise level.					
		Outdoor Uses	Activities associated with the land use may be carried out.					
45, 50	Conditionally Compatible	Indoor Uses	Building structure must attenuate exterior noise to the indoor noise level indicated by the number for occupied areas.					
		Outdoor Uses	Feasible noise mitigation techniques should be analyzed and incorporated to make the outdoor activities acceptable.					
	Incompatible	Indoor Uses	New construction should not be undertaken.					
		Outdoor Uses	Severe noise interference makes outdoor activities unacceptable.					

Source: City of San Diego 2024b.

* For uses affected by aircraft noise, refer to General Plan Noise Element Policies NE-D.2 and NE-D.3.

The City's General Plan Noise Element also lists the following policies with respect to noise and land use compatibility.

- **NE-A.1.** Separate excessive noise-generating uses from residential and other noise-sensitive land uses with a sufficient spatial buffer of less sensitive uses.
- **NE-A.2.** Assure the appropriateness of proposed developments relative to existing and future noise levels by consulting the guidelines for noise-compatible land use (shown on Table 3) to minimize the effects on noise-sensitive land uses.
- **NE-A.3.** Limit future residential and other noise-sensitive land uses in areas exposed to high levels of noise.
- **NE-A.4.** Require an acoustical study consistent with Acoustical Study Guidelines (Table NE-4) for proposed developments in areas where the existing or future noise level exceeds or would exceed the "compatible" noise level thresholds as indicated on the Land Use – Noise Compatibility Guidelines (Table 3), so that noise mitigation measures can be included in the Project design to meet the noise guidelines.
- **NE-A.5.** Prepare noise studies to address existing and future noise levels from noise sources that are specific to a community when updating community plans.

City CEQA Significance Determination Thresholds

The City's California Environmental Quality Act (CEQA) Significance Determination Thresholds address noise and vibration under different sections as follows:

- Section II.K – Significance Threshold 1 describes interior and exterior noise impact thresholds from traffic generated noise as appearing in Table 4.10-4, reproduced from Table K-2 in the City's CEQA Significance Determination Thresholds document.

Table 4.10-4
Traffic Noise Significance Thresholds

Structure or Proposed Use that would be impacted by Traffic Noise	Interior Space	Exterior Usable Space[A]	General Indication of Potential Significance
Single-family detached	45 dB	65 dB	Structure or outdoor usable area[B] is < 50 feet from the center of the closest (outside) lane on a street with existing or future ADTs >7500[C]
Multi-family, schools, libraries, hospitals, day care, hotels, motels, parks, convalescent homes	Development Services Department (DSD) ensures 45 dB pursuant to Title 24		

Table 4.10-4
Traffic Noise Significance Thresholds

Structure or Proposed Use that would be impacted by Traffic Noise	Interior Space	Exterior Usable Space[A]	General Indication of Potential Significance
Offices, Churches, Business, Professional Uses	N/A	70 dB	Structure or outdoor usable area is < 50 feet from the center of the closest lane on a street with existing or future ADTs > 20,000
Commercial, Retail, Industrial, Outdoor Spectator Sports Uses	N/A	75 dB	Structure or outdoor usable area is < 50 feet from the center of the closest lane on a street with existing or future ADTs > 40,000

Source: City of San Diego 2022a.
Notes: N/A = not applicable; ADT = average daily traffic.
[A] If a project is currently at or exceeds the significance thresholds for traffic noise described above and noise levels would result in less than a 3 dB increase, then the impact is not considered significant.
[B] Exterior usable areas do not include residential front yards or balconies, unless the areas such as balconies are part of the required usable open space calculation for multi-family units.
[C] Traffic counts are available from San Diego Regional Association of Governments Traffic Forecast Information Center.

- Section II.K.6 – states with respect to construction noise:

  "Temporary construction noise which exceeds 75 dBA L_{eq} at a sensitive receptor would be considered significant. Construction noise levels measured at or beyond the property lines of any property zoned residential shall not exceed an average sound level greater than 75 dBA during the 12-hour period from 7:00 a.m. to 7:00 p.m. In addition, construction activity is prohibited between the hours of 7:00 p.m. of any day and 7:00 a.m. of the following day, or on legal holidays as specified in Section 21.04 of the San Diego Municipal Code, with exception of Columbus Day and Washington's Birthday, or on Sundays, that would create disturbing, excessive, or offensive noise unless a permit has been applied for and granted beforehand by the Noise Abatement and Control Administrator, in conformance with San Diego Municipal Code Section 59.5.0404.

  Additionally, where temporary construction noise would substantially interfere with normal business communication, or affect sensitive receptors, a significant noise impact may be identified."

4.10.3 SIGNIFICANCE DETERMINATION

Thresholds used to evaluate potential impacts related to noise are based on applicable criteria in the CEQA Guidelines Appendix G and the City's Significance Determination Thresholds (City of San Diego 2022a). The following issue questions are addressed in this section:

1. Would the project result or create a significant increase in the existing ambient noise levels;
2. Would the project result in exposure of people to noise levels which exceed the City's adopted noise ordinance or are incompatible with Table K-4 of the City's CEQA Significance Determination Thresholds;
3. Would the project result in exposure of people to current or future transportation noise levels which exceed standards established in the Transportation Element of the General Plan or an adopted airport Comprehensive Land Use Plan;
4. Would the project result in the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels; or
5. Would the project result in land uses which are not compatible with aircraft noise levels as defined by an adopted airport Comprehensive Land Use Plan (CLUP).

With respect to ground-borne vibration propagation generated by construction equipment activity and thus having the potential to create a significant impact (Issue 4), for a receiving structure, Caltrans guidance recommends that a vibration magnitude of 0.3 ips PPV would represent the threshold for building damage risk of older residential structures exposed to continuous or frequently intermittent sources of ground-borne vibration (identified in Section 4.10.2), and will be utilized as impact significance criteria. Additionally, Caltrans guidance indicates that a vibration velocity of 0.2 ips PPV received at a structure would be considered annoying by occupants within (Caltrans 2020).

4.10.4 IMPACTS ANALYSIS

Issue 1: Would the project result or create a significant increase in the existing ambient noise levels?

Short-Term Construction Noise

Construction noise and vibration are temporary phenomena, with emission levels varying from hour to hour and day to day, depending on the equipment in use, the operations performed, and the distance between the source and receptor. Equipment that would be in use during construction would include, in part, graders, backhoes, rubber-tired dozers, loaders, cranes, forklifts, pavers, rollers, and air compressors. The typical maximum noise levels at a distance of 50 feet from various pieces of

construction equipment and activities anticipated for use on the proposed Program site are presented in Table 4.10-5. Note that the equipment noise levels presented in Table 4.10-5 are maximum noise levels. Usually, construction equipment operates in alternating cycles of full power and low power, producing average noise levels over time that are less than the maximum noise level. The average sound level of construction activity also depends on the amount of time that the equipment operates and the intensity of construction activities during that time.

Table 4.10-5
Typical Construction Equipment Maximum Noise Levels

Equipment Type	Typical Equipment (L_{max}, dBA at 50 Feet)
All Other Equipment > 5 HP	85
Backhoe	78
Compressor (air)	78
Crane	81
Dozer	82
Excavator	81
Flat Bed Truck	74
Front End Loader	79
Generator	72
Grader	85
Man Lift	75
Paver	77
Roller	80
Welder/Torch	73

Source: DOT 2006.
Note: L_{max} = maximum sound level; dBA = A-weighted decibels; HP = horsepower.

Aggregate noise emission from Program construction activities, broken down by sequential phase, was predicted at two evaluation distances to the nearest existing noise-sensitive receptor: 1) from the nearest position of the construction site boundary and 2) from the active construction equipment for a phase at two distinct locations dependent on construction progress along a linear path. The intent of the former distance is to help evaluate anticipated construction noise from a limited quantity of equipment or vehicle activity expected to be at the boundary of construction for some period of time, which would be most appropriate for elements such as Wetland and Water Quality Improvements, Restoration of Shoreline, and Upland Habitat and Preserve Expansion due to each element's proximity to the nearest noise-sensitive receptors, respectively. Specifically, the activity phases analyzed using the former distance do not span across a linear path of construction for thousands of feet but are defined within an area (i.e., component boundary), and therefore, the nearest individual

noise-sensitive receptor(s) do not change as construction progresses. The latter distance is used in a manner similar to the general assessment technique as described in the FTA guidance for construction noise assessment, when the location of individual equipment for a given activity phase is uncertain over some extent of (or the entirety of) the construction site area. In this studied scenario, because of the equipment location uncertainty, construction noise exposure at a noise-sensitive receptor is studied at two distinct distances along a linear path of construction progress: a perpendicular (P) nearest distance (i.e., between the midpoint of estimated activity and the receiver location) and a hypotenuse (H) distance (i.e., where the equipment is either near the lead point or trailing point of the construction progress). The latter distance would be most appropriate for elements such as Bicycle and Pedestrian Improvements and Restoration of Seawall Bulkhead. The distances between the construction of Program elements and the respective nearest sensitive receptors are detailed in in the appendices to the Noise Technical Report, Appendix R to this EIR.

A Microsoft Excel–based noise prediction model emulating and using reference data from the Federal Highway Administration Roadway Construction Noise Model (FHWA 2008) was used to estimate construction noise levels at the nearest occupied noise-sensitive land uses to each Program element. (Although the Roadway Construction Noise Model was funded and promulgated by the Federal Highway Administration, it is often used for non-roadway projects, because the same types of construction equipment used for roadway projects are often used for other types of construction.) Input variables for the predictive modeling consist of the equipment type and number of each (e.g., two graders, a loader, a tractor), the duty-cycle for each piece of equipment (e.g., percentage of time within a specific time period, such as an hour, when the equipment is expected to operate at full power or capacity and thus make noise at a level comparable to what is presented in Table 4.10-5), and the distance from the noise-sensitive receiver. The predictive model also considers how many hours that equipment may be on site and operating (or idling) within an established work shift. Conservatively, no topographical shielding was assumed in the modeling. The Roadway Construction Noise Model has default duty-cycle values for the various pieces of equipment, which were derived from an extensive study of typical construction activity patterns. Those default duty-cycle values were used for this noise analysis, which is detailed in the appendices to the Noise Technical Report, Appendix R to this EIR.

Wetland and Water Quality Improvements Element

North Fiesta Island Component

Table 4.10-6 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during construction activities at the North Fiesta Island component. The studied nearest noise-sensitive receptor is the Tecolote Shores South Mission Bay Playground.

Table 4.10-6
Predicted Construction Noise Levels per Activity Phase – North Fiesta Island Component

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization (dozer, tractor)	50.6	860
Earthwork (excavator, loader, dozer, off-road trucks, scraper, tugboat, barge)	59.5	860
Plantings (tractor, excavator)	50.2	860
Bridge Construction (crane, bore/drill rigs, dredge, pumps, excavator, dump truck)	51.3	860
Demobilization (dozer, tractor)	50.6	860

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-6, the estimated construction noise levels are predicted to be up to 59.5 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 860 feet away) when Earthwork activities take place near the eastern element boundaries. Measured existing noise levels at measurement location ST10 (see Table 4.10-1), representative of the studied nearest noise-sensitive receptor to the North Fiesta Island component construction activities, were 54.2 dBA L_{eq}; thus, temporary construction noise levels would be approximately 5.3 dBA higher than the measured outdoor ambient noise levels.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, for the North Fiesta Island component, temporary construction-related noise would be **less than significant**.

Tecolote Creek and Fiesta Island Causeway Component

Table 4.10-7 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during construction activities at the Tecolote Creek and Fiesta Island component. The studied nearest noise-sensitive receptor is the Tecolote Shores South Mission Bay Playground.

Table 4.10-7
Predicted Construction Noise Levels per Activity Phase – Tecolote Creek and Fiesta Island Causeway Component – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization (dozer, tractor)	80.3	50
Earthwork (excavator, loader, dozer, off-road trucks, scraper)	87.6	50
Plantings (tractor, excavator)	79.9	50
Bridge Construction (crane, bore/drill rigs, dredge, pumps, excavator, dump truck)	79.7	50
Demobilization (dozer, tractor)	80.3	50

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-7, the estimated construction noise levels are predicted to be up to 87.6 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 50 feet away) when Earthwork activities take place near the northeastern element boundaries, and all other activities would yield construction noise levels greater than 75 dBA L_{eq} over a 12-hour period. Therefore, construction activities at the Tecolote Creek and Fiesta Island component would result in an exceedance of the 75 dBA L_{eq} 12-hour City threshold for construction noise. Measured noise levels at measurement location ST10 (see Table 4.10-1), representative of the studied nearest noise-sensitive receptor to the North Fiesta Island component construction activities, were 54.2 dBA L_{eq}. Thus, temporary construction noise levels would be approximately 33.4 dBA higher than the measured outdoor ambient noise levels at the noise-sensitive receptor nearest to the construction of the Tecolote Creek and Fiesta Island component.

Thus, Mitigation Measure (MM) NOI-1 is required, which would require the Program to implement certain noise reduction measures as site conditions warrant. Proper implementation of MM-NOI-1 would reduce noise levels by up to 12.9 dB if a 9-foot-tall temporary construction noise barrier is implemented during each activity phase along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor. Implementation of MM-NOI-1 would correspondingly reduce the highest predicted estimated non-mitigated construction noise level from 87.6 to 74.8 dBA L_{eq} during the Earthwork phase, which would be within the applicable 75 dBA L_{eq} 12-hour City threshold for construction noise.

Table 4.10-8 shows the predicted aggregate noise levels for construction activities when a 9-foot-tall temporary construction noise barrier described in MM-NOI-1 is implemented during the five studied activity phases, strategically placed along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor.

Table 4.10-8
Predicted Construction Noise Levels per Activity Phase – Tecolote Creek and Fiesta Island Causeway Component – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization (dozer, tractor)	67.5	50
Earthwork (excavator, loader, dozer, off-road trucks, scraper)	74.8	50
Plantings (tractor, excavator)	67.1	50
Bridge Construction (crane, bore/drill rigs, dredge, pumps, excavator, dump truck)	66.9	50
Demobilization (dozer, tractor)	67.5	50

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-8, the estimated construction noise levels are predicted to be up to 74.8 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 50 feet away) when Earthwork activities take place near the southern/eastern element boundaries, which would be 20.6 dBA L_{eq} higher than the measured noise levels at measurement location ST10 (see Table 4.10-1). In summary, with the implementation of MM-NOI-1, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at the Tecolote Creek and Fiesta Island Causeway component, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Cudahy Creek Component

Table 4.10-9 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during construction activities at the Cudahy Creek component. The studied nearest noise-sensitive receptors are single-family residences east of Morena Boulevard.

Table 4.10-9
Predicted Construction Noise Levels per Activity Phase – Cudahy Creek Component

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization (dozer, tractor)	54.7	575
Import and Rough Grading (excavator, loader, dozer, off-road trucks, scraper, tugboat, barge)	63.6	575
Plantings (tractor, excavator)	57.6	575
Bridge Construction (crane, bore/drill rigs, dredge, pumps, excavator, dump truck)	55.6	575
Demobilization (dozer, tractor)	54.7	575

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-9, the estimated construction noise levels are predicted to be up to 63.6 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 575 feet away) when import and rough grading activities take place near the eastern element boundaries. Measured noise levels at measurement location ST9 (see Table 4.10-1), representative of the studied nearest noise-sensitive receptor to the Cudahy Creek component construction activities, were 68.4 dBA L_{eq}; thus, temporary construction noise levels, in the worst case, may result in an ambient level increase of 2 dBA or less. An increase of at least 3 dBA is required to be considered noticeable, and although such an increase would not be noticeable to most people, construction noise may still be audible to some due to the frequency content and hearing sensitivity variations.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, for the Cudahy Creek component, temporary construction-related noise would be **less than significant**.

Restoration of Shoreline Element

Vacation Island Northwest (NW)

Table 4.10-10 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during the construction activities at Vacation Island Northwest (NW). The studied nearest

noise-sensitive receptors are lodging facilities along Sunset Road and Sands Drive, associated with Paradise Point Resort & Spa.

Table 4.10-10
Predicted Construction Noise Levels per Activity Phase – Vacation Island NW -Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization/SWPPP/Site Preparation (dozer, tractor)	78.7	60
Beach Nourishment (tractor, dozer, excavator)	79.8	60
Construct Groins (tractor)	76.6	60
Demobilization (dozer, tractor)	78.7	60

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels; SWPPP = stormwater pollution prevention plan.

As presented in Table 4.10-10, the estimated construction noise levels are predicted to be up to 79.8 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 60 feet away) when Beach Nourishment activities take place near the southern/eastern element boundaries, and therefore would result in an exceedance of the 75 dBA L_{eq} 12-hour City threshold for construction noise. Measured noise levels at measurement location ST7 (see Table 4.10-1), representative of the studied nearest noise-sensitive receptor to construction activities at Vacation Island NW, were 57.1 dBA L_{eq}; thus, temporary construction noise levels would be approximately 22.7 dBA higher than the measured outdoor ambient noise levels.

Thus, MM-NOI-1 is required, which would require the Program to implement certain noise reduction measures as site conditions warrant. Proper implementation of MM-NOI-1 would reduce noise levels by up to 7.4 dB if an 8-foot-tall temporary construction noise barrier is implemented during each activity phase along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor. Implementation of MM-NOI-1 would correspondingly reduce the highest predicted estimated non-mitigated construction noise level from 79.8 to 72.5 dBA L_{eq} during the Beach Nourishment phase, which would be within the applicable 75 dBA L_{eq} 12-hour City threshold for construction noise.

Table 4.10-11 shows the predicted aggregate noise levels for construction activities when an 8-foot-tall temporary construction noise barrier described in MM-NOI-1 is implemented during the 4 studied

activity phases, strategically placed along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor.

Table 4.10-11
Predicted Construction Noise Levels per Activity Phase – Vacation Island NW – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization/SWPPP/Site Preparation (dozer, tractor)	71.3	60
Beach Nourishment (tractor, dozer, excavator)	72.5	60
Construct Groins (tractor)	69.2	60
Demobilization (dozer, tractor)	71.3	60

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels; SWPPP = stormwater pollution prevention plan.

As presented in Table 4.10-11, the estimated construction noise levels are predicted to be up to 72.5 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 60 feet away) when Beach Nourishment activities take place near the southern/eastern element boundaries, which would be 15.4 dBA L_{eq} higher than the measured noise levels at measurement location ST7 (see Table 4.10-1). In summary, with the implementation of MM-NOI-1, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Vacation Island NW, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Vacation Island Northeast (NE) – Ingraham Street

Table 4.10-12 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during the construction activities at Vacation Island Northeast (NE) – Ingraham Street. The studied nearest noise-sensitive receptors are lodging facilities along Hummingbird Lane, associated with Paradise Point Resort & Spa.

Table 4.10-12
Predicted Construction Noise Levels per Activity Phase – Vacation Island NE (Ingraham Street) – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization/SWPPP/Site Preparation (dozer, tractor)	77.3	70
Recover Existing Rip Rap (tractor)	75.2	70
Construct New Revetment (loader, excavators, dump truck)	76.9	70
Install Oyster Habitat (tractor, excavator, tugboat, barge)	78.0	70
Demobilization (dozer, tractor)	77.3	70

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels; SWPPP = stormwater pollution prevention plan.

As presented in Table 4.10-12, the estimated construction noise levels are predicted to be up to 78.0 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 70 feet away) when Install Oyster Habitat activities take place near the southern/eastern element boundaries, and all other activities would yield construction noise levels greater than 75 dBA L_{eq} over a 12-hour period. Therefore, construction activities at Vacation Island Northeast (NE) – Ingraham Street would result in an exceedance of the 75 dBA L_{eq} 12-hour City threshold for construction noise. Measured noise levels at measurement location ST7 (see Table 4.10-1) would be representative of the studied nearest noise-sensitive receptor to construction activities at Vacation Island NE – Ingraham Street and were measured to be 57.1 dBA L_{eq}; thus, temporary construction noise levels would be approximately 20.9 dBA higher than the measured outdoor ambient noise levels.

Thus, MM-NOI-1 is required, which would require the Program to implement certain noise reduction measures as site conditions warrant. Proper implementation of MM-NOI-1 would reduce noise levels by up to 3.7 dB if a 7-foot-tall temporary construction noise barrier is implemented during each activity phase along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor. Implementation of MM-NOI-1 would correspondingly reduce the highest predicted estimated non-mitigated construction noise level from 77.3 to 73.7 dBA L_{eq} during the Mobilization/SWPPP/Site Preparation and Demobilization phases, which would be within the applicable 75 dBA L_{eq} 12-hour City threshold for construction noise.

Table 4.10-13 shows the predicted aggregate noise levels for construction activities when a 7-foot-tall temporary construction noise barrier described in MM-NOI-1 is implemented during the five studied activity phases, strategically placed along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor.

Table 4.10-13
Predicted Construction Noise Levels per Activity Phase – Vacation Island NE (Ingraham Street) – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization/SWPPP/Site Preparation (dozer, tractor)	73.7	70
Recover Existing Rip Rap (tractor)	71.6	70
Construct New Revetment (loader, excavators, dump truck)	73.3	70
Install Oyster Habitat (tractor, excavator)	73.3	70
Demobilization (dozer, tractor)	73.7	70

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels; SWPPP = stormwater pollution prevention plan.

As presented in Table 4.10-13, the estimated construction noise levels are predicted to be up to 73.7 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 70 feet away) when Mobilization/SWPPP/Site Preparation and Demobilization activities take place near the southern/eastern element boundaries, which would be 16.6 dBA L_{eq} higher than the measured noise levels at measurement location ST7 (see Table 4.10-1). In summary, with the implementation of MM-NOI-1, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Vacation Island NE – Ingraham Street, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Vacation Island Northeast (NE) – Ski Beach

Table 4.10-14 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during the construction activities at Vacation Island Northeast (NE) – Ski Beach. The studied nearest noise-sensitive receptors are lodging facilities along Hummingbird Lane, associated with Paradise Point Resort & Spa.

Table 4.10-14
Predicted Construction Noise Levels per Activity Phase – Vacation Island NE (Ski Beach)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization/SWPPP/Site Preparation (dozer, tractor)	52.9	660
Cobble Berm (tractor, excavator)	52.5	660
Beach Nourishment (tractor, dozer, excavator)	52.5	660
Demobilization (dozer, tractor)	52.9	660

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-14, the estimated construction noise levels are predicted to be up to 52.9 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 660 feet away) when Mobilization/SWPPP/Site Preparation and Demobilization activities take place near the southern/western element boundaries. Measured noise levels at measurement location ST7 (see Table 4.10-1) would be representative of the studied nearest noise-sensitive receptor to construction activities at Vacation Island NE – Ski Beach and were measured to be 57.1 dBA L_{eq}; thus, temporary construction noise levels, in the worst case, may result in an ambient level increase of 2 dBA or less. An increase of at least 3 dBA is required to be considered noticeable, and although such an increase would not be noticeable to most people, construction noise may still be audible to some due to the frequency content and hearing sensitivity variations.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Vacation Island NE – Ski Beach, temporary construction-related noise would be **less than significant**.

Vacation Island Southwest (SW)

Table 4.10-15 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during the construction activities at Vacation Island Southwest (SW). The nearest noise-sensitive receptors are lodging facilities south of Vacation Road, associated with Paradise Point Resort & Spa.

Table 4.10-15
Predicted Construction Noise Levels per Activity Phase – Vacation Island SW

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization/SWPPP/Site Preparation (dozer, tractor)	53.2	640
Recover Existing Rip Rap (tractor, excavator)	52.8	640
Construct New Revetment (loader, excavators, dump truck)	52.7	640
Install Oyster Habitat (tractor, excavator, tugboat, barge)	55.0	640
Demobilization (dozer, tractor)	53.2	640

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-15, the estimated construction noise levels are predicted to be up to 55.0 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 640 feet away) when Install Oyster Habitat activities take place near the northern element boundaries. Measured noise levels at measurement location ST7 (see Table 4.10-1) would be representative of the nearest noise-sensitive receptor to construction activities at Vacation Island SW and were measured to be 57.1 dBA L_{eq}; thus, temporary construction noise levels, in the worst case, may result in an ambient level increase of 2 dBA or less. An increase of at least 3 dBA is required to be considered noticeable, and although such an increase would not be noticeable to most people, construction noise may still be audible to some due to the frequency content and hearing sensitivity variations.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Vacation Island SW, temporary construction-related noise would be **less than significant**.

Ventura Cove Park

Table 4.10-16 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during the construction activities at Ventura Cove Park. The nearest noise-sensitive receptor is the Bahia Resort Hotel.

Table 4.10-16
Predicted Construction Noise Levels per Activity Phase – Ventura Cove Park

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization/SWPPP/Site Preparation (dozer, tractor)	50.4	850
Recover Existing Rip Rap (tractor)	48.3	850
Construct New Revetment (loader, excavators)	47.4	850
Install Oyster Habitat (tractor, excavator, tugboat, barge)	52.2	850
Construct Sidewalk (loader, excavator, concrete mixer truck, concrete saw, pumps)	54.5	850
Demobilization (dozer, tractor)	50.4	850

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-16, the estimated construction noise levels are predicted to be up to 54.5 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 850 feet away) when Construct Sidewalk activities take place near the northern element boundaries. Measured noise levels at measurement location ST3 (see Table 4.10-1) would be representative of the studied nearest noise-sensitive receptor to construction activities at Ventura Cove Park and were measured to be 59.7 dBA L_{eq}; thus, temporary construction noise levels, in the worst case, may result in an ambient level increase of 2 dBA or less. An increase of at least 3 dBA is required to be considered noticeable, and although such an increase would not be noticeable to most people, construction noise may still be audible to some due to the frequency content and hearing sensitivity variations.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Ventura Cove Park, temporary construction-related noise would be **less than significant**.

Crown Point

Table 4.10-17 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during the construction activities at Crown Point. The studied nearest noise-sensitive receptors are single-family residences along Riviera Drive.

Table 4.10-17
Predicted Construction Noise Levels per Activity Phase – Crown Point – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization (dozer, tractor, impact pile driver, vibratory pile driver, jetting equipment, concrete mixer truck, pumps)	83.0	110
Excavation (excavator)	68.2	110
Shoreline Stabilization (tractor, impact pile driver, vibratory pile driver, jetting equipment, concrete mixer truck, pumps)	82.8	110
Install Oyster Habitat (tractor, excavator)	73.0	110
Demobilization (dozer, tractor)	73.4	110

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-17, the estimated construction noise levels are predicted to be up to 83.0 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 110 feet away) when Mobilization activities take place near the eastern element boundaries, and therefore would result in an exceedance of the 75 dBA L_{eq} 12-hour City threshold for construction noise. Measured noise levels at measurement location ST6 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to construction activities at Crown Point, were measured to be 56.9 dBA L_{eq}; thus, temporary construction noise levels would be approximately 26.1 dBA higher than the measured outdoor ambient noise levels.

Thus, MM-NOI-1 is required, which would require the Program to implement certain noise reduction measures as site conditions warrant. Proper implementation of MM-NOI-1 would reduce noise levels by up to 9.2 dB if an 11-foot-tall temporary construction noise barrier is implemented during the Mobilization and Shoreline Stabilization activity phases along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor. Implementation of MM-NOI-1 would correspondingly reduce the highest predicted estimated non-mitigated construction noise levels from 83.0 and 82.8 dBA L_{eq} to 73.9 and 73.7 dBA L_{eq} during the Mobilization and Shoreline Stabilization phases, respectively, which would be within the applicable 75 dBA L_{eq} 12-hour City threshold for construction noise.

Table 4.10-18 shows the predicted aggregate noise levels for construction activities when an 11-foot-tall temporary construction noise barrier described in MM-NOI-1 is implemented during the Mobilization and Shoreline Stabilization activity phases, strategically placed along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor.

Table 4.10-18
Predicted Construction Noise Levels per Activity Phase – Crown Point – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization (dozer, tractor, impact pile driver, vibratory pile driver, jetting equipment, concrete mixer truck, pumps)	73.9	110
Excavation (excavator)	68.2	110
Shoreline Stabilization (tractor, impact pile driver, vibratory pile driver, jetting equipment, concrete mixer truck, pumps)	73.7	110
Install Oyster Habitat (tractor, excavator)	73.0	110
Demobilization (dozer, tractor)	73.4	110

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-18, the estimated construction noise levels are predicted to be up to 73.9 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 110 feet away) when Mobilization activities take place near the eastern element boundaries, which would be 17.0 dBA L_{eq} higher than the measured noise levels at measurement location ST6 (see Table 4.10-1). In summary, with the implementation of MM-NOI-1, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Crown Point, temporary construction-related noise would be **less than significant with mitigation incorporated**.

West Sail Bay

Table 4.10-19 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during the construction activities at West Sail Bay. The nearest noise-sensitive receptors are single-family residences along Bayside Walk, east of Mission Boulevard.

Table 4.10-19
Predicted Construction Noise Levels per Activity Phase – West Sail Bay – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization/SWPPP/Site Preparation (dozer, tractor, excavator)	87.7	30
Beach Nourishment (tractor, dozer, excavator)	87.7	30
Demobilization (tractor, dozer, excavator)	87.7	30

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-19, the estimated construction noise levels are predicted to be up to 87.7 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 30 feet away) when all three construction activities take place along the western element boundaries, and therefore would result in an exceedance of the 75 dBA L_{eq} 12-hour City threshold for construction noise. Measured noise levels at measurement location ST5 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to construction activities at West Sail Bay, were measured to be 59.1 dBA L_{eq}; thus, temporary construction noise levels would be approximately 28.6 dBA higher than the measured outdoor ambient noise levels.

Thus, MM-NOI-1 is required, which would require the Program to implement certain noise reduction measures as site conditions warrant. Proper implementation of MM-NOI-1 would reduce noise levels by up to 14.0 dB if a 9-foot-tall temporary construction noise barrier is implemented during all three activity phases along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor. Implementation of MM-NOI-1 would correspondingly reduce the highest predicted estimated non-mitigated construction noise levels from

87.7 to 73.8 dBA L_{eq} during each activity phase, which would be within the applicable 75 dBA L_{eq} 12-hour City threshold for construction noise.

Table 4.10-20 shows the predicted aggregate noise levels for construction activities when a 9-foot-tall temporary construction noise barrier described in MM-NOI-1 is implemented during all three activity phases, strategically placed along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor.

Table 4.10-20
Predicted Construction Noise Levels per Activity Phase – West Sail Bay – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization/SWPPP/Site Preparation (dozer, tractor, excavator)	73.8	30
Beach Nourishment (tractor, dozer, excavator)	73.8	30
Demobilization (tractor, dozer, excavator)	73.8	30

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-20, the estimated construction noise levels are predicted to be up to 73.8 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 30 feet away), which would be 14.7 dBA L_{eq} higher than the measured noise levels at measurement location ST5 (see Table 4.10-1). In summary, with the implementation of MM-NOI-1, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at West Sail Bay, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Bonita Cove

Table 4.10-21 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during the construction activities at Bonita Cove. The nearest noise-sensitive receptors are single-family residences along Bayside Lane and San Fernando Place, west of the element boundary.

Table 4.10-21
Predicted Construction Noise Levels per Activity Phase – Bonita Cove – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization/SWPPP/Site Preparation (dozer, tractor, water compaction truck, pumps)	82.5	45
Demolish Existing Sidewalk (concrete saw, dozer, excavator, backhoe)	84.9	45
Construct New Sidewalk (loader, excavator, off-road truck, concrete saw, pumps)	84.9	45
Cobble Berm (tractor, excavator)	80.8	45
Beach Nourishment (tractor, water compaction truck)	80.3	45
Demobilization (tractor, dozer)	81.2	45

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-21, the estimated construction noise levels are predicted to be up to 84.9 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 45 feet away) when Demolish Existing Sidewalk and Construct New Sidewalk activities take place along the western element boundaries, and therefore would result in an exceedance of the 75 dBA L_{eq} 12-hour City threshold for construction noise. Measured noise levels at measurement location ST2 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to construction activities at Bonita Cove, were measured to be 60.1 dBA L_{eq}; thus, temporary construction noise levels would be approximately 24.8 dBA higher than the measured outdoor ambient noise levels.

Thus, MM-NOI-1 is required, which would require the Program to implement certain noise reduction measures as site conditions warrant. Proper implementation of MM-NOI-1 would reduce noise levels by up to 10.2 dB if a 9-foot-tall temporary construction noise barrier is implemented during each activity phase along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor. Implementation of MM-NOI-1 would correspondingly reduce the highest predicted estimated non-mitigated construction noise levels from 84.9 to 74.9 dBA L_{eq} during the Demolish Existing Sidewalk and Construct New Sidewalk activity phases, which would be within the applicable 75 dBA L_{eq} 12-hour City threshold for construction noise.

Table 4.10-22 shows the predicted aggregate noise levels for construction activities when a 9-foot-tall temporary construction noise barrier described in MM-NOI-1 is implemented during each activity phase, strategically placed along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor.

Table 4.10-22
Predicted Construction Noise Levels per Activity Phase – Bonita Cove – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization/SWPPP/Site Preparation (dozer, tractor, water compaction truck, pumps)	72.4	45
Demolish Existing Sidewalk (concrete saw, dozer, excavator, backhoe)	74.9	45
Construct New Sidewalk (loader, excavator, off-road truck, concrete saw, pumps)	74.9	45
Cobble Berm (tractor, excavator)	70.7	45
Beach Nourishment (tractor, water compaction truck)	70.2	45
Demobilization (tractor, dozer)	71.1	45

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-22, the estimated construction noise levels are predicted to be up to 74.9 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 45 feet away), which would be 14.8 dBA L_{eq} higher than the measured noise levels at measurement location ST2 (see Table 4.10-1). In summary, with the implementation of MM-NOI-1, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Bonita Cove, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Bahia Point

Table 4.10-23 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during the construction activities at Bahia Point. The nearest noise-sensitive receptor is the Bahia Resort Hotel.

Table 4.10-23
Predicted Construction Noise Levels per Activity Phase – Bahia Point

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization/SWPPP/Site Preparation (dozer, tractor, water truck, dump truck)	71.0	130
Storm Drain Improvements/Install Pilot Groins (tractor, excavator, dump truck)	72.0	130
Excavation (excavator)	64.8	130
Cobble Berm (tractor)	67.8	130
Beach Nourishment (tractor, dump truck, tugboat, barge)	70.1	130
Construct Vehicle Access Ways (loader, excavator, concrete mixer truck, concrete saw, pumps, water truck)	73.5	130
Demobilization (dozer, tractor)	69.9	130

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels; SWPPP = stormwater pollution prevention plan.

As presented in Table 4.10-23, the estimated construction noise levels are predicted to be up to 73.5 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 130 feet away) when Construct Vehicle Access Ways activities take place near the western element boundaries. Measured noise levels at measurement location ST3 (see Table 4.10-1) would be representative of the nearest noise-sensitive receptor to construction activities at Bahia Point and were measured to be 59.7 dBA L_{eq}; thus, temporary construction noise levels would be approximately 13.8 dBA higher than the measured outdoor ambient noise levels.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Bahia Point, temporary construction-related noise would be **less than significant**.

Upland Habitat and Preserve Expansion Element

Site No.1 – Fiesta Island South

Table 4.10-24 presents the predicted construction noise levels at the studied noise-sensitive receptors nearest to No. 1 Fiesta Island South (i.e., Tecolote Shores South Mission Bay Playground).

Table 4.10-24
Predicted Construction Noise Levels per Activity Phase – No. 1 – Fiesta Island South

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Clearing and Grubbing/Non-Native Eradication (pickup truck, dump truck, dozer, chipper)	48.7	1400
Plantings (pickup truck, excavator)	40.2	1400
Seeding (pickup truck, dozer)	41.2	1400

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-24, the estimated construction noise levels are predicted to be up to 48.7 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptors (as close as 1400 feet away) when Clearing and Grubbing/Non-Native Eradication activities take place near the eastern element boundaries. Measurement location ST10 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to Fiesta Island Site No. 1 due to its proximity to I-5, was 54.2 dBA L_{eq}. Thus, temporary construction noise levels, in the worst case, may result in an ambient level increase of 2 dBA or less. An increase of at least 3 dBA is required to be considered noticeable, and although such an increase would not be noticeable to most people, construction noise may still be audible to some due to the frequency content and hearing sensitivity variations.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at No. 1- Fiesta Island South, temporary construction-related noise would be **less than significant**.

Site No. 2 – Fiesta Island North Central

Table 4.10-25 presents the predicted construction noise levels at the studied noise-sensitive receptors nearest to Site No. 2 – Fiesta Island North Central (i.e., San Diego Mission Bay Resort).

Table 4.10-25
Predicted Construction Noise Levels per Activity Phase – Site No. 2 – Fiesta Island North Central

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Clearing and Grubbing/Non-Native Eradication (pickup truck, dump truck, dozer, chipper)	44.6	2070
Plantings (pickup truck, excavator)	36.1	2070
Seeding (pickup truck, dozer)	37.1	2070

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-25, the estimated construction noise levels are predicted to be up to 44.6 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptors (as close as 2070 feet away) when Clearing and Grubbing/Non-Native Eradication activities take place near the eastern element boundaries. Measurement location ST10 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to Site No. 2 – Fiesta Island North Central, was 54.2 dBA L_{eq}. Thus, temporary construction noise levels, in the worst case, may result in an ambient level increase of 2 dBA or less. An increase of at least 3 dBA is required to be considered noticeable, and although such an increase would not be noticeable to most people, construction noise may still be audible to some due to the frequency content and hearing sensitivity variations.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Site No. 2 – Fiesta Island North Central, temporary construction-related noise would be **less than significant**.

No. 3 – Near Youth Camping

Table 4.10-26 presents the predicted construction noise levels at the studied noise-sensitive receptors nearest to No. 3 – Near Youth Camping (i.e., San Diego Mission Bay Resort).

Table 4.10-26
Predicted Construction Noise Levels per Activity Phase – Site No. 3 – Near Youth Camping

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Clearing and Grubbing/Non-Native Eradication (pickup truck, dump truck, dozer, chipper)	56.7	620
Site Grading and Sand Import/Export (dozer, haul truck, water truck, pickup truck)	55.0	620
Plantings (pickup truck, excavator)	48.3	620
Seeding (pickup truck, dozer)	49.2	620

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-26, the estimated construction noise levels are predicted to be up to 56.7 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptors (as close as 620 feet away) when Clearing and Grubbing/Non-Native Eradication activities take place near the eastern element boundaries. Measurement location ST10 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to Site No. 3 – Near Youth Camping, was 54.2 dBA L_{eq}. Thus, temporary construction noise levels would be approximately 2.5 dBA higher than the measured outdoor ambient noise levels.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Site No. 3 – Near Youth Camping, temporary construction-related noise would be **less than significant**.

Site No. 4 – Fiesta Island Least Tern Preserve Area

Table 4.10-27 presents the predicted construction noise levels at the studied noise-sensitive receptors nearest to Site No. 4 – Fiesta Island Least Tern Preserve Area (i.e., San Diego Mission Bay Resort).

Table 4.10-27
Predicted Construction Noise Levels per Activity Phase – Site No. 4 – Fiesta Island Least Tern Preserve Area

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Clearing and Grubbing/Non-Native Eradication (pickup truck, dump truck, dozer, chipper)	43.4	2300
Site Grading (scraper, dozer, water truck, pickup truck)	42.6	2300
Concrete and Asphalt Demo and Disposal (loader, excavator, haul truck, pickup truck)	38.5	2300
Sand Import/Placement (dozer, haul truck, water truck, pickup truck)	41.7	2300
Plantings (pickup truck, excavator)	35.0	2300

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-27, the estimated construction noise levels are predicted to be up to 43.4 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptors (as close as 2300 feet away) when Clearing and Grubbing/Non-Native Eradication activities take place near the eastern element boundaries. Measurement location ST10 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to Site No. 4 – Fiesta Island Least Tern Preserve Area, was 54.2 dBA L_{eq}. Thus, temporary construction noise levels, in the worst case, may result in an ambient level increase of 2 dBA or less. An increase of at least 3 dBA is required to be considered noticeable, and although such an increase would not be noticeable to most people, construction noise may still be audible to some due to the frequency content and hearing sensitivity variations.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Site No. 54 – Fiesta Island Least Tern Preserve Area, temporary construction-related noise would be **less than significant**.

Site No. 5a – Cloverleaf Enhancement Area

Table 4.10-28 presents the predicted construction noise levels at the studied noise-sensitive receptors nearest to Site No. 5a – Cloverleaf Enhancement Area (i.e., single- and multi-family residences within the Loma Riviera Community Association condominiums).

Table 4.10-28
Predicted Construction Noise Levels per Activity Phase – Site No. 5a – Cloverleaf Enhancement Area

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Clearing and Grubbing/Non-Native Eradication (pickup truck, dump truck, dozer, chipper)	50.5	1170
Site Grading and Sand Import/Placement (dozer, haul truck, water truck, pickup truck)	48.8	1170
Plantings (pickup truck, excavator)	42.0	1170
Seeding (pickup truck, dozer)	43.0	1170

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-28, the estimated construction noise levels are predicted to be up to 50.5 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptors (as close as 1170 feet away) when Clearing and Grubbing/Non-Native Eradication activities take place near the southern element boundaries. Measurement location ST11 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to Sea World Drive/San Diego River Site No. 1a due to its proximity to the I-8, was 50.3 dBA L_{eq}. Thus, temporary construction noise levels would be approximately 0.2 dBA higher than the measured outdoor ambient noise levels.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Site No. 5a – Cloverleaf Enhancement Area, temporary construction-related noise would be **less than significant**.

Sea World Drive/San Diego River Site No. 5b – Triangle Enhancement Area

Table 4.10-29 presents the predicted construction noise levels at the studied noise-sensitive receptors nearest to Sea World Drive/San Diego River Site No. 5b – Triangle Enhancement Area (i.e., 1646 Front Street San Diego hotel).

Table 4.10-29
Predicted Construction Noise Levels per Activity Phase – Sea World Drive/San Diego River Site No. 5b – Triangle Enhancement Area

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Clearing and Grubbing/Non-Native Eradication (pickup truck, dump truck, dozer, chipper)	44.4	2100
Seeding (pickup truck, dozer)	36.9	2100

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-29, the estimated construction noise levels are predicted to be up to 44.4 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptors (as close as 2100 feet away) when Clearing and Grubbing/Non-Native Eradication activities take place near the southern element boundaries. Measurement location ST11 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to Sea World Drive/San Diego River Site No. 5b – Triangle Enhancement Area due to its proximity to the I-8, was 50.3 dBA L_{eq}. Thus, temporary construction noise levels would be approximately 5.9 dBA lower than the measured outdoor ambient noise levels.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Sea World Drive/San Diego River Site No. 5b – Triangle Enhancement Area, temporary construction-related noise would be **less than significant**.

Sea World Drive/San Diego River Site No. 5c – South Shores East Restoration and Enhancement Area

Table 4.10-30 presents the predicted construction noise levels at the studied noise-sensitive receptors nearest to Sea World Drive/San Diego River Site No. 4d (i.e., Tecolote Shores South Mission Bay Playground).

Table 4.10-30
Predicted Construction Noise Levels per Activity Phase – Sea World Drive/San Diego River Site No. 5c – South Shores East Restoration and Enhancement Area

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Clearing and Grubbing/Non-Native Eradication (pickup truck, dump truck, dozer, chipper)	48.4	1440
Site Grading (dozer, haul truck, water truck, pickup truck)	46.6	1440
Plantings (pickup truck, excavator)	39.9	1440
Seeding (pickup truck, dozer)	40.9	1440

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-30, the estimated construction noise levels are predicted to be up to 48.4 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptors (as close as 1440 feet away) when Clearing and Grubbing/Non-Native Eradication activities take place near the southern element boundaries. Measurement location ST10 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to Sea World Drive/San Diego River Site No. 5c – South Shores East Restoration and Enhancement Area, was 54.2 dBA L_{eq}. Thus, temporary construction noise levels, in the worst case, may result in an ambient level increase of 2 dBA or less. An increase of at least 3 dBA is required to be considered noticeable, and although such an increase would not be noticeable to most people, construction noise may still be audible to some due to the frequency content and hearing sensitivity variations.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Sea World Drive/San Diego River Site No. 5c – South Shores East Restoration and Enhancement Area, temporary construction-related noise would be **less than significant**.

Bicycle and Pedestrian Improvements Element

Tables 4.10-31–4.10-35 present the predicted 12-hour L_{eq} levels and source-to-receiver distances for each activity phase during the construction of the Bicycle and Pedestrian Improvements Element. The

studied noise-sensitive receptors nearest to each element are detailed below. In the following studied scenarios, because of the equipment location uncertainty, construction noise exposure at a noise-sensitive receptor is studied at two distinct distances along a linear path of construction progress: a perpendicular (P) nearest distance (i.e., between the midpoint of estimated activity phase progress and the receiver location) and a hypotenuse (H) distance (i.e., where the equipment is either near the lead point or trailing point of the construction progress).

Rose Creek Bike Path

Table 4.10-31 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during the construction of the Rose Creek Bike Path, where the alignment's total length over which construction equipment makes daily progress is approximately 4,075 feet. The nearest noise-sensitive receptors are single-family residences along Figueroa Boulevard, Magnolia Avenue, and Hornblend Street, east of the element boundary.

Table 4.10-31
Predicted Construction Noise Levels per Activity Phase – Rose Creek Bike Path – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization (dozer, tractor)	85.3	20	408
Clearing and Grubbing (dozer, tractor)	85.3	20	137
Place Chain Link Fence (skidsteer)	79.2	20	137
Demolition of AC Paving (dozer, excavator, concrete saw)	88.7	20	510
Proposed Grading (loader, excavator)	85.7	20	137
BMP Installation (skidsteer, excavator)	85.7	20	137

Table 4.10-31
Predicted Construction Noise Levels per Activity Phase – Rose Creek Bike Path – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Place AC Pavement (concrete saw, paver, paving equipment, roller)	87.8	20	137
Form & Pour Concrete (concrete mixer truck, concrete saw, pumps	87.2	20	679
Remove Existing Striping & Place New Striping and Signage (air compressor)	77.1	20	1019
Demobilization / Project Closeout (dozer, tractor)	85.3	20	147

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-31, the estimated construction noise levels are predicted to be up to 88.7 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 20 feet away) when Demolition of AC Paving activities take place, and therefore would result in an exceedance of the 75 dBA L_{eq} 12-hour City threshold for construction noise. Measured noise levels at measurement location ST8 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to construction activities along Rose Creek Bike Path, were measured to be 54.8 dBA L_{eq}. Thus, temporary construction noise levels would be approximately 33.9 dBA higher than the measured outdoor ambient noise levels.

Thus, MM-NOI-1 is required, which would require the Program to implement certain noise reduction measures as site conditions warrant. Proper implementation of MM-NOI-7 would reduce noise levels by up to 15.5 dB if a 9-foot-tall temporary construction noise barrier is implemented during each activity phase along the boundary, when construction activities take place at the perpendicular (P) distance (i.e., 20 feet) from a noise-sensitive receptor. By way of example, when Demolition of AC

Paving activities take place at a 20-foot perpendicular distance from a noise-sensitive receptor along Magnolia Avenue, a 9-foot-tall temporary construction noise barrier placed along the eastern boundary would reduce noise levels by up to 15.5 dB. Thus, Implementation of MM-NOI-1 would correspondingly reduce the highest predicted estimated non-mitigated construction noise levels from 88.7 to 73.3 dBA L_{eq} during the Demolition of AC Paving activity phase, which would be within the applicable 75 dBA L_{eq} 12-hour City threshold for construction noise.

Table 4.10-32 shows the predicted aggregate noise levels for construction activities when a 9-foot-tall temporary construction noise barrier described in MM-NOI-1 is implemented during each activity phase, strategically placed along the eastern boundary when construction activities take place at the perpendicular (P) distance (i.e., 20 feet) from a noise-sensitive receptor (see Appendix B to Appendix R for detailed model input/output).

Table 4.10-32
Predicted Construction Noise Levels per Activity Phase – Rose Creek Bike Path – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization (dozer, tractor)	69.9	20	408
Clearing and Grubbing (dozer, tractor)	71.1	20	137
Place Chain Link Fence (skidsteer)	65.0	20	137
Demolition of AC Paving (dozer, excavator, concrete saw)	73.3	20	510
Proposed Grading (loader, excavator)	71.6	20	137
BMP Installation (skidsteer, excavator)	71.6	20	137
Place AC Pavement (concrete saw, paver,	73.6	20	137

Table 4.10-32
Predicted Construction Noise Levels per Activity Phase – Rose Creek Bike Path – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
paving equipment, roller)			
Form & Pour Concrete (concrete mixer truck, concrete saw, pumps	71.8	20	679
Remove Existing Striping & Place New Striping and Signage (air compressor)	61.7	20	1019
Demobilization / Project Closeout (dozer, tractor)	71.0	20	147

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-32, the estimated construction noise levels are predicted to be up to 73.3 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 20 feet away), which would be 18.5 dBA L_{eq} higher than the measured noise levels at measurement location ST8 (see Table 4.10-1). In summary, with the implementation of MM-NOI-1, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Rose Creek Bike Path, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Fiesta Island Causeway Path

Table 4.10-33 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during the construction of the Fiesta Island Causeway Path, where the alignment's total length over which construction equipment makes daily progress is approximately 900 feet. The nearest noise-sensitive receptor is the Tecolote Shores South Mission Bay Playground, north of the element boundary.

Table 4.10-33
Predicted Construction Noise Levels per Activity Phase – Fiesta Island Causeway Path

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization (dozer, tractor)	52.5	670	676
Clearing and Grubbing (dozer, tractor)	51.8	670	807
Demolition of AC Paving (dozer, excavator, concrete saw)	56.0	670	679
Excavation of Retaining Wall (loader, excavator)	49.5	670	679
Retaining Wall Foundation Construction (skidsteer, excavator)	53.0	670	676
Retaining Wall Construction (skidsteer, excavator)	53.0	670	670
Grading (loader, excavator)	53.0	670	676
Sawcut Existing Roadway, Pave Asphalt Concrete & Place K-Rail (concrete saw, paver, paving equipment, roller)	55.0	670	676
Form & Pour Concrete (concrete mixer truck, concrete saw, pumps	54.5	670	672
Remove Existing Striping & Place New Striping and Signage (air compressor)	43.7	670	807

Table 4.10-33
Predicted Construction Noise Levels per Activity Phase – Fiesta Island Causeway Path

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Demobilization / Project Closeout (dozer, tractor)	52.6	670	671

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-33, the estimated construction noise levels are predicted to be up to 55.0 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 670 feet away) when Sawcut Existing Roadway, Pave Asphalt Concrete & Place K-Rail activities take place. Measured noise levels at measurement location ST10 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to construction activities at the Fiesta Island Causeway Path due to its proximity to I-5, were measured to be 54.2 dBA L_{eq}. Thus, temporary construction noise levels would be approximately 0.8 dBA higher than the measured outdoor ambient noise levels.

In summary, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at the Fiesta Island Causeway Path, temporary construction-related noise would be **less than significant**.

Ocean Beach Bike Path

Table 4.10-34 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during the construction of the Ocean Beach Bike Path, where the alignment's total length over which construction equipment makes daily progress is approximately 5000 feet. The nearest noise-sensitive receptors are single-family residences along Point Loma Boulevard, south of the element boundary.

Table 4.10-34
Predicted Construction Noise Levels per Activity Phase – Ocean Beach Bike Path – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization (dozer, tractor)	74.0	70	505
Clearing and Grubbing, Removing Existing Trees (dozer, tractor)	74.0	70	505
Remove and Relocate/Salvage Existing Bollards & Benches (skidsteer)	67.8	70	2501
Demolition of AC Paving (dozer, excavator, concrete saw)	77.5	70	505
Proposed Grading (loader, excavator)	71.2	70	181
BMP Installation Including Storm Drain Design (skidsteer, excavator)	74.7	70	181
Place AC Pavement (concrete saw, paver, paving equipment, roller)	76.7	70	181
Form & Pour Concrete (concrete mixer truck, concrete saw, pumps	75.9	70	836
Remove Existing Striping & Place New Striping and Signage (air compressor)	65.8	70	1252

Table 4.10-34
Predicted Construction Noise Levels per Activity Phase – Ocean Beach Bike Path – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Demobilization / Project Closeout (dozer, tractor)	74.2	70	192

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-34, the estimated construction noise levels are predicted to be up to 77.5 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 70 feet away) when Demolition of AC Paving activities take place, and therefore would result in an exceedance of the 75 dBA L_{eq} 12-hour City threshold for construction noise. Measured noise levels at measurement location ST12 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to construction activities along the Ocean Beach Bike Path, were measured to be 46.7 dBA L_{eq}. Thus, temporary construction noise levels would be approximately 30.8 dBA higher than the measured outdoor ambient noise levels.

Thus, MM-NOI-1 is required, which would require the Program to implement certain noise reduction measures as site conditions warrant. Proper implementation of MM-NOI-1 would reduce noise levels by up to 9.9 dB if an 8-foot-tall temporary construction noise barrier is implemented during the Demolition of AC Paving, Place AC Pavement, and Form & Pour Concrete phases, when construction activities take place at the perpendicular (P) distance (i.e., 70 feet) from a noise-sensitive receptor. By way of example, when Demolition of AC Paving activities take place along Ocean Beach Bike Path at a 70-foot perpendicular distance from a noise-sensitive receptor along Point Loma Boulevard, an 8-foot-tall temporary construction noise barrier placed along the southern boundary would reduce noise levels by up to 9.9 dB. Thus, Implementation of MM-NOI-1 would correspondingly reduce the highest predicted estimated non-mitigated construction noise levels from 77.5 to 67.8 dBA L_{eq} during the Demolition of AC Paving activity phase, which would be within the applicable 75 dBA L_{eq} 12-hour City threshold for construction noise.

Table 4.10-35 shows the predicted aggregate noise levels for construction activities when an 8-foot-tall temporary construction noise barrier described in MM-NOI-1 is implemented during the Demolition of AC Paving, Place AC Pavement, and Form & Pour Concrete phases, strategically placed

along the southern boundary when construction activities take place at the perpendicular (P) distance (i.e., 70 feet) from a noise-sensitive receptor (see Appendix B to Appendix R for detailed model input/output).

Table 4.10-35
Predicted Construction Noise Levels per Activity Phase – Ocean Beach Bike Path – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Mobilization (dozer, tractor)	74.0	70	505
Clearing and Grubbing, Removing Existing Trees (dozer, tractor)	74.0	70	505
Remove and Relocate/Salvage Existing Bollards & Benches (skidsteer)	67.8	70	2501
Demolition of AC Paving (dozer, excavator, concrete saw)	67.8	70	505
Proposed Grading (loader, excavator)	71.2	70	181
BMP Installation Including Storm Drain Design (skidsteer, excavator)	74.7	70	181
Place AC Pavement (concrete saw, paver, paving equipment, roller)	68.8	70	181
Form & Pour Concrete (concrete mixer truck, concrete saw, pumps	66.1	70	836

Table 4.10-35
Predicted Construction Noise Levels per Activity Phase – Ocean Beach Bike Path – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Remove Existing Striping & Place New Striping and Signage (air compressor)	65.8	70	1252
Demobilization / Project Closeout (dozer, tractor)	74.2	70	192

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-35, the estimated construction noise levels are predicted to be up to 74.7 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 70 feet away), which would be 28.0 dBA L_{eq} higher than the measured noise levels at measurement location ST12 (see Table 4.10-1). In summary, with the implementation of MM-NOI-1, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Ocean Beach Bike Path, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Restoration of Seawall Bulkhead Element

Tables 4.10-36–4.10-43 present the predicted 12-hour L_{eq} levels and source-to-receiver distances for each activity phase during the construction of the Restoration of the Seawall Bulkhead Element. The studied noise-sensitive receptors nearest to each element are detailed below, and each proposed segment is discussed individually (i.e., Replace Segment A, Replace Segment B, and New Segment C). In the following studied scenarios, because of the equipment location uncertainty, construction noise exposure at a noise-sensitive receptor is studied at two distinct distances along a linear path of construction progress: a perpendicular (P) nearest distance (i.e., between the midpoint of estimated activity-phase progress and the receiver location) and a hypotenuse (H) distance (i.e., where the equipment is either near the lead point or trailing point of the construction progress).

Replace Segment A

Table 4.10-36 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during construction activities along Segment A, where the alignment's total length over which construction equipment makes daily progress is approximately 9,035 feet. The nearest noise-sensitive receptors are residences along Ocean Front Walk/Mission Beach Boardwalk, east of the element boundary.

Table 4.10-36
Predicted Construction Noise Levels per Activity Phase – Replace Segment A – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Replace Parapet (Option 1)			
Clearing and Grubbing (dozer, tractor)	83.3	25	302
Demolition (concrete saw, dozer, excavator)	86.9	25	103
Parapet Replacement (crane, excavator, concrete mixer truck, concrete saw, man lift, pumps, air compressor)	89.2	25	28
Void Repairs (Option 1a)			
Void Repairs (concrete saw, excavator, concrete mixer truck, pumps)	86.8	25	56

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-36, the estimated construction noise levels are predicted to be up to 89.2 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 25 feet away) when Parapet Replacement activities take place along the eastern element boundaries, and therefore would result in an exceedance of the 75 dBA L_{eq} 12-hour City threshold for construction noise. Measured noise levels at measurement locations ST1 and ST4 (see Table 4.10-1), representative of the

nearest noise-sensitive receptors to construction activities along Segment A, were measured to be 63.7 dBA L_{eq} and 56.9 dBA L_{eq}, respectively. Thus, temporary construction noise levels would be up to approximately 32.3 dBA higher than the measured outdoor ambient noise levels.

Thus, MM-NOI-1 is required, which would require the Program to implement certain noise reduction measures as site conditions warrant. Proper implementation of MM-NOI-1 would reduce noise levels by up to 15.7 dB if a 13-foot-tall temporary construction noise barrier is implemented during each activity phase along the boundary, when construction activities take place at the perpendicular (P) distance (i.e., 25 feet) from a noise-sensitive receptor. By way of example, when Parapet Replacement activities take place along Segment A at a 25-foot perpendicular distance from a noise-sensitive receptor along Ocean Front Walk/Mission Beach Boardwalk, a 13-foot-tall temporary construction noise barrier placed along the eastern boundary (where construction activities take place) would reduce noise levels by up to 15.7 dB, resulting in construction noise levels of 73.9 dBA L_{eq} (12-hour) during the phase.

Table 4.10-37 shows the predicted aggregate noise levels for construction activities when a 13-foot-tall temporary construction noise barrier described in MM-NOI-1 is implemented during each activity phase, strategically placed along the eastern boundary when construction activities take place at the perpendicular (P) distance (i.e., 25 feet) from a noise-sensitive receptor (see Appendix B to Appendix R for detailed model input/output).

Table 4.10-37
Predicted Construction Noise Levels per Activity Phase – Replace Segment A – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Replace Parapet (Option 1)			
Clearing and Grubbing (dozer, tractor)	68.0	25	302
Demolition (concrete saw, dozer, excavator)	74.7	25	103
Parapet Replacement (crane, excavator, concrete mixer truck, concrete saw, man lift,	73.9	25	28

Table 4.10-37
Predicted Construction Noise Levels per Activity Phase – Replace Segment A – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Replace Parapet (Option 1)			
pumps, air compressor)			
Void Repairs (Option 1a)			
Void Repairs (concrete saw, excavator, concrete mixer truck, pumps)	79.6	25	56

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-37, with the implementation of MM-NOI-1, the estimated construction noise levels are predicted to be up to 79.6 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 25 feet away) during Void Repairs activities, which would be up to 22.7 dBA L_{eq} higher than the measured noise levels at measurement location ST4 (see Table 4.10-1), and 4.6 dBA L_{eq} over the 75 dBA L_{eq} 12-hour City guidance; all other activity phases would be below 75 dBA L_{eq} (12-hour).

In summary, with the implementation of MM-NOI-1, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would still exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor during Void Repairs activities at Segment A. Therefore, during construction activities along Segment A, temporary construction-related noise impacts would be **significant and unavoidable**.

Replace Segment B

Table 4.10-38 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during construction activities along Segment B, where the alignment's total length over which construction equipment makes daily progress is approximately 1,050 feet. The nearest noise-sensitive receptors are residences along Ocean Front Walk/Mission Beach Boardwalk, east of the element boundary.

Table 4.10-38
Predicted Construction Noise Levels per Activity Phase – Replace Segment B – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Replace Parapet			
Clearing and Grubbing (dozer, tractor)	83.6	25	79
Demolition (concrete saw, dozer, excavator)	87.9	25	45
Parapet Replacement (crane, excavator, concrete mixer truck, concrete saw, man lift, pumps, air compressor)	89.4	25	27
Void Repairs			
Void Repairs (concrete saw, excavator, concrete mixer truck, pumps)	88.9	25	26

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-38, the estimated construction noise levels are predicted to be up to 89.4 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 25 feet away) when Parapet Replacement activities take place along the eastern element boundaries, and therefore would result in an exceedance of the 75 dBA L_{eq} 12-hour City threshold for construction noise. Measured noise levels at measurement locations ST4 and ST5 (see Table 4.10-1), representative of the nearest noise-sensitive receptors to construction activities along Segment B, were measured to be 56.9 dBA L_{eq} and 59.1 dBA L_{eq}, respectively. Thus, temporary construction noise levels would be up to approximately 32.5 dBA higher than the measured outdoor ambient noise levels.

Thus, MM-NOI-1 is required, which would require the Program to implement certain noise reduction measures as site conditions warrant. Proper implementation of MM-NOI-1 would reduce noise levels by up to 15.7 dB if a 13-foot-tall temporary construction noise barrier is implemented during each activity phase along the boundary, when construction activities take place at the perpendicular (P)

distance (i.e., 25 feet) from a noise-sensitive receptor. By way of example, when Parapet Replacement activities take place along Segment B at a 25-foot perpendicular distance from a noise-sensitive receptor along Ocean Front Walk/Mission Beach Boardwalk, a 13-foot-tall temporary construction noise barrier placed along the eastern boundary (where construction activities take place) would reduce noise levels by up to 15.7 dB, resulting in construction noise levels of 73.8 dBA L_{eq} (12-hour) during the phase.

Table 4.10-39 shows the predicted aggregate noise levels for construction activities when a 13-foot-tall temporary construction noise barrier described in MM-NOI-1 is implemented during each activity phase, strategically placed along the eastern boundary when construction activities take place at the perpendicular (P) distance (i.e., 25 feet) from a noise-sensitive receptor (see Appendix B to Appendix R for detailed model input/output).

Table 4.10-39
Predicted Construction Noise Levels per Activity Phase – Replace Segment B – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Replace Parapet (Option 1)			
Clearing and Grubbing (dozer, tractor)	73.5	25	79
Demolition (concrete saw, dozer, excavator)	82.0	25	45
Parapet Replacement (crane, excavator, concrete mixer truck, concrete saw, man lift, pumps, air compressor)	73.8	25	27
Void Repairs (Option 1a)			
Void Repairs (concrete saw, excavator, concrete mixer truck, pumps)	73.3	25	26

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-39, with the implementation of MM-NOI-10, the estimated construction noise levels are predicted to be up to 82.0 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 25 feet away) during Demolition activities, which would be up to 25.1 dBA L_{eq} higher than the measured noise levels at measurement location ST5 (see Table 4.10-1), and 7.0 dBA L_{eq} over the 75 dBA L_{eq} 12-hour City guidance; all other activity phases would be below 75 dBA L_{eq} (12-hour).

In summary, with the implementation of MM-NOI-1, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would still exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor during Demolition activities at Segment B. Therefore, during construction activities along Segment B, temporary construction-related noise impacts would be **significant and unavoidable**.

New Segment C

Table 4.10-40 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during construction activities along Segment C, where the alignment's total length over which construction equipment makes daily progress is approximately 255 feet. The nearest noise-sensitive receptors are residences along Ocean Boulevard and Thomas Avenue, east of the element boundary.

Table 4.10-40
Predicted Construction Noise Levels per Activity Phase – New Segment C – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Decorative Seawall (Option 2)			
Construct Seawall (crane, excavator, concrete mixer truck, concrete saw, pumps, air compressor)	89.6	25	25
Beach Access Driveway			
Clearing and Grubbing (dozer, tractor)	83.8	25	68

Table 4.10-40
Predicted Construction Noise Levels per Activity Phase – New Segment C – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Decorative Seawall (Option 2)			
Construct Seawall (crane, excavator, concrete mixer truck, concrete saw, pumps, air compressor)	89.6	25	25
Beach Access Driveway			
Demolition of AC Paving (concrete saw, dozer, excavator)	87.3	25	68
Proposed Grading (loader, excavator)	82.0	25	36
Place AC Pavement (concrete saw, paver, paving equipment, roller)	87.5	25	36
Form & Pour Concrete (concrete mixer truck, concrete saw, pumps)	86.2	25	49
Striping and Signage (air compressor)	75.7	25	68

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-40, the estimated construction noise levels are predicted to be up to 89.6 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 25 feet away) when Construct Seawall activities take place along the eastern element boundaries, and therefore would result in an exceedance of the 75 dBA L_{eq} 12-hour City threshold for construction noise. Measured noise levels at measurement location ST5 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to construction activities along Segment C, were measured to be 59.1 dBA

L_{eq}. Thus, temporary construction noise levels would be up to approximately 30.5 dBA higher than the measured outdoor ambient noise levels.

Thus, MM-NOI-1 is required, which would require the Program to implement certain noise reduction measures as site conditions warrant. Proper implementation of MM-NOI-1 would reduce noise levels by up to 15.5 dB if a 10-foot-tall temporary construction noise barrier is implemented during each activity phase along the boundary, when construction activities take place at the perpendicular (P) distance (i.e., 25 feet) from a noise-sensitive receptor. By way of example, when Construct Seawall activities take place along Segment C at a 25-foot perpendicular distance from a noise-sensitive receptor Ocean Boulevard and Thomas Avenue, a 10-foot-tall temporary construction noise barrier placed along the eastern boundary (where construction activities take place) would reduce noise levels by up to 15.5 dB, resulting in construction noise levels of 74.2 dBA L_{eq} (12-hour) during the phase.

Table 4.10-41 shows the predicted aggregate noise levels for construction activities when a 10-foot-tall temporary construction noise barrier described in MM-NOI-1 is implemented during each activity phase, strategically placed along the eastern boundary when construction activities take place at the perpendicular (P) distance (i.e., 25 feet) from a noise-sensitive receptor (see Appendix B to Appendix R for detailed model input/output).

Table 4.10-41
Predicted Construction Noise Levels per Activity Phase – New Segment C – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Decorative Seawall (Option 2)			
Construct Seawall (crane, excavator, concrete mixer truck, concrete saw, pumps, air compressor)	74.2	25	25
Beach Access Driveway			
Clearing and Grubbing (dozer, tractor)	75.2	25	68

Table 4.10-41
Predicted Construction Noise Levels per Activity Phase – New Segment C – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Perpendicular (P) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)	Hypotenuse (H) Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Decorative Seawall (Option 2)			
Construct Seawall (crane, excavator, concrete mixer truck, concrete saw, pumps, air compressor)	74.2	25	25
Beach Access Driveway			
Demolition of AC Paving (concrete saw, dozer, excavator)	78.6	25	68
Proposed Grading (loader, excavator)	77.4	25	36
Place AC Pavement (concrete saw, paver, paving equipment, roller)	82.9	25	36
Form & Pour Concrete (concrete mixer truck, concrete saw, pumps)	79.8	25	49
Striping and Signage (air compressor)	67.1	25	68

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-41, with the implementation of MM-NOI-1, the estimated construction noise levels are predicted to be up to 82.9 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 25 feet away) during Place AC Pavement activities, which would be up to 23.8 dBA L_{eq} higher than the measured noise levels at measurement location ST5 (see Table 4.10-1), and 7.9 dBA L_{eq} over the 75 dBA L_{eq} 12-hour City guidance; additionally, the Demolition of AC Paving, Proposed Grading, and Form & Pour Concrete phases would also exceed the 75 dBA L_{eq} (12-hour) City guidance.

In summary, with the implementation of MM-NOI-1, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would still exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor during all phases except Construct Seawall, Clearing and Grubbing, and Striping and Signage activities at Segment C. Therefore, during construction activities along Segment C, temporary construction-related noise impacts would be **significant and unavoidable**.

Access Improvements

Table 4.10-42 presents the predicted 12-hour L_{eq} and source-to-receiver distance for each activity phase during the Access Improvements construction activities. The nearest noise-sensitive receptors are residences along Ocean Front Walk/Mission Beach Boardwalk, east of the element activities.

Table 4.10-42
Predicted Construction Noise Levels per Activity Phase – Access Improvements – Unmitigated

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Pedestrian Beach Access Improvements (Stairs)		
Demolition (concrete saw, dozer, excavator)	80.8	90
Stairway Construction (excavator, concrete mixer truck, concrete saw, pumps)	80.7	90
Pedestrian Beach Access Improvements (Pedestrian Ramp)		
Demolition (concrete saw, dozer, excavator)	80.8	90
Stairway Construction (excavator, concrete mixer truck, concrete saw, pumps)	80.7	90

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-42, the estimated construction noise levels are predicted to be up to 80.8 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 90 feet away) when Demolition activities take place near the eastern element boundaries, and therefore would result in an exceedance of the 75 dBA L_{eq} 12-hour City threshold for construction noise. Measured noise levels at measurement locations ST1 and ST4 (see Table 4.10-1), representative of the nearest noise-sensitive receptor to Access Improvements construction activities, were measured to be

63.7 dBA L_{eq} and 56.9 dBA L_{eq}, respectively. Thus, temporary construction noise levels would be approximately 23.9 dBA higher than the measured outdoor ambient noise levels.

Thus, MM-NOI-1 is required, which would require the Program to implement certain noise reduction measures as site conditions warrant. Proper implementation of MM-NOI-1 would reduce noise levels by up to 7.9 dB if an 8-foot-tall temporary construction noise barrier is implemented during each activity phase along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor. Implementation of MM-NOI-12 would correspondingly reduce the highest predicted estimated non-mitigated construction noise level from 80.8 to 73.0 dBA L_{eq} during Demolition activities, which would be within the applicable 75 dBA L_{eq} 12-hour City threshold for construction noise.

Table 4.10-43 shows the predicted aggregate noise levels for construction activities when an 8-foot-tall temporary construction noise barrier described in MM-NOI-1 is implemented during the four studied activity phases, strategically placed along the boundary where the direct line of sight is blocked between active construction equipment and a receiving noise-sensitive receptor.

Table 4.10-43
Predicted Construction Noise Levels per Activity Phase – Access Improvements – Mitigated (MM-NOI-1)

Activity Phase (and Equipment Types Involved)	12-Hour L_{eq} at Nearest Noise-Sensitive Receptor to Construction Site Boundary (dBA)	Distance from Nearest Noise-Sensitive Receptor to Construction Site Boundary (Feet)
Pedestrian Beach Access Improvements (Stairs)		
Demolition (concrete saw, dozer, excavator)	73.0	90
Stairway Construction (excavator, concrete mixer truck, concrete saw, pumps)	72.9	90
Pedestrian Beach Access Improvements (Pedestrian Ramp)		
Demolition (concrete saw, dozer, excavator)	73.0	90
Stairway Construction (excavator, concrete mixer truck, concrete saw, pumps)	72.9	90

Notes: L_{eq} = equivalent noise level; dBA = A-weighted decibels.

As presented in Table 4.10-43, the estimated construction noise levels are predicted to be up to 73.0 dBA L_{eq} over a 12-hour period at the nearest noise-sensitive receptor (as close as 90 feet away) when

Demolition activities take place near the eastern element boundaries, which would be 16.1 dBA L_{eq} higher than the measured noise levels at measurement location ST4 (see Table 4.10-1). In summary, with the implementation of MM-NOI-1, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during Access Improvements construction activities, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Long-Term Operational Noise Exposure

Wetland and Water Quality Improvements Element

Operations and maintenance would be required for the North Fiesta Island, Tecolote Creek and Fiesta Island Causeway, and Cudahy Creek components. The most intensive actions would include trash removal, weed removal from transitional habitat areas, channel and culvert maintenance, perimeter fence repair, and Sea Level Rise adaptive management. Although maintenance is anticipated to be regular, such operations would not generate substantial noise and would be comparable to existing operations and maintenance activities in the component areas. Any noise attributed to the operations and maintenance of the Wetland and Water Quality Improvements Element components are likely to be below the City's applicable exterior noise limits established in Section 59.5.0401 of the Municipal Code (Table 4.10-2), and operational noise would be **less than significant**.

Restoration of Shoreline Element

Operation and maintenance activities would be limited for the Restoration of Shoreline Element. Slow, continuous erosion would occur over time and some areas would need to be re-nourished in the future. For the West Sail Bay component, for example, beach grooming may be required to redistribute the sand as it collects to the north and south of West Sail Bay. The noise generated from beach grooming would be comparable to or the same as the existing activities performed by the City, such as use of a loader, which similarly must adhere to exterior noise ordinance limits. Across a linear path, such as the sand beach of West Sail Bay, such equipment may pass by a residence within a perpendicular distance as close as 50 feet, but only for a few minutes at a time; most of the time, this mobile equipment would be much further away along the beach extent. In this exemplary scenario, noise levels are not expected to exceed the applicable City exterior noise limits, because of the assumed equipment size and comparability to existing activities. Therefore, noise produced during operation and maintenance activities would not be expected to exceed the City's applicable exterior noise limits established in Section 59.5.0401 of the Municipal Code (Table 4.10-2). Thus, due to the anticipated limited operations and maintenance under the Restoration of Shoreline Element, operational noise would be **less than significant**.

Upland Habitat and Preserve Expansion Element

Long-term maintenance is required for habitat restoration activities for 25 months post-construction. Maintenance vehicles (i.e., pickup trucks) and the size of the maintenance crews would vary depending on the location being maintained. Crews are expected to be small, with likely no more than two trucks and a crew of from four to eight laborers and one to two supervisors. Additionally, the maintenance and control of non-native exotic species would be an ongoing effort, which may involve a combination of hand pulling and vegetation thinning, for example. Operational noise associated with these activities would be negligible and unlikely to exceed the City's applicable exterior noise limits established in Section 59.5.0401 of the Municipal Code (Table 4.10-2). Thus, operational noise associated with the Upland Habitat and Preserve Expansion Element would be **less than significant**.

Bicycle and Pedestrian Improvements Element

The operation of the bicycle and pedestrian paths would generally be limited to cleaning, clearing, and repairs as necessary, which is unlikely to generate substantial noise, particularly in exceedance of the City's applicable exterior noise limits established in Section 59.5.0401 of the Municipal Code (Table 4.10-2). Thus, operational noise associated with the Bicycle and Pedestrian Improvements Element would be **less than significant**.

Restoration of Seawall Bulkhead Element

Upon completion of the Restoration of the Seawall Bulkhead Element, operation and maintenance activities would be minimal and consistent with the City's standard routine maintenance requirements, and therefore be consistent with the applicable exterior noise limits established in Section 59.5.0401 of the Municipal Code (Table 4.10-2). Operational noise associated with the Restoration of the Seawall Bulkhead Element would be **less than significant**.

Issue 2: Would the project result in exposure of people to noise levels which exceed the City's adopted noise ordinance or are incompatible with Table K-4 of the City's *CEQA Significance Determination Thresholds*?

Table K-4 from the City's CEQA Significance Determination Thresholds is primarily a planning tool to ensure long-term compatibility of various land uses. As discussed under Issue 1, Long-Term Operational Noise Exposure, the Program elements' operations (i.e., long-term maintenance or repairs) would be minimal and consistent with the City's standard routine maintenance requirements and would therefore be consistent with the applicable noise limits established in Table K-4. Therefore, operational noise associated with the Program would be compatible with the standards in Table K-4. Impacts would be **less than significant**.

Issue 3: Would the project result in exposure of people to current or future transportation noise levels which exceed standards established in the Transportation Element of the General Plan or an adopted airport Comprehensive Land Use Plan?

The Program is not anticipated to result in a significant increase in long-term off-site traffic noise. According to Section II.K of the City's CEQA Significance Determination Thresholds, Program-generated traffic noise would be considered significant if exposure levels exceed 65 dB at an exterior usable space of noise-sensitive receptors including, but not limited to, single-family and multi-family residences, hotels, motels, parks, and convalescent homes (as shown in Table 4.10-4). In cases where existing traffic noise levels exceed the City's traffic noise significance thresholds, an increase in traffic noise greater than 3 dB would be considered significant.

Based upon the San Diego Association of Governments Traffic Forecast Information Center, the existing (2025) Average Daily Traffic volume on West Mission Bay Drive from Mission Boulevard to Bayside Lane is approximately 25,400 per day. Based upon the fundamentals of acoustics, a 100% increase in Average Daily Traffic volumes, or a doubling of the existing 25,400 vehicles, would be needed to result in a 3-dB increase in noise levels, which would be just audible to the average human listener.

Such an increase in Average Daily Traffic volumes on off-site roadways attributable to the Program is not expected, as the Program would focus on existing park maintenance and would not involve the addition of new park and recreational assets that could introduce additional visitors or residents to the area. It is expected that these passive recreation improvements and restoration elements would serve the existing residents and visitation levels in the San Diego area and would not increase traffic volumes in the area. Therefore, impacts related to off-site traffic noise exposure would be **less than significant**.

Issue 4: Would the Project result in the exposure of persons to or generation of excessive ground-borne vibration or ground-borne noise levels?

Construction activities associated with the Program elements would expose people to ground-borne vibration or ground-borne noise. Caltrans has collected ground-borne vibration information related to construction activities (Caltrans 2013). Information from Caltrans indicates that continuous vibrations with a PPV of approximately 0.2 ips is considered annoying. For context, heavier pieces of construction equipment, such as a roller that may be used during construction, have peak particle velocities of approximately 0.21 ips or less at a reference distance of 25 feet (FTA 2018). Additionally, construction vibration, at sufficiently high levels, can also present a building damage risk. Caltrans guidance recommends that a vibration magnitude of 0.3 ips PPV would represent the threshold for building damage risk of older residential structures exposed to continuous or frequently intermittent sources of ground-borne vibration, or 0.5 ips PPV for transient vibration events.

Ground-borne vibration attenuates rapidly, even over short distances. The attenuation of ground-borne vibration as it propagates from source to receptor through intervening soils and rock strata can be estimated with expressions found in FTA and Caltrans guidance.

The following worst-case construction vibration activities are studied: 1) during construction activities at Crown Point (Restoration of Shoreline Element), where an impact pile driver may operate as close as 110 feet from the nearest sensitive receptor; 2) during the construction of Rose Creek Bike Path (Bicycle and Pedestrian Improvements Element), where a roller may operate as close as 20 feet from the nearest sensitive receptor; and 3) during New Segment C (Restoration of the Seawall Bulkhead Element) construction activities, where a roller may operate as close as 25 feet from the nearest sensitive receptor.

By way of example, for a roller operating along the eastern boundary of Rose Creek Bike Path construction activities (i.e., 20 feet from the nearest receiving sensitive land use), the estimated vibration velocity would be 0.27 ips per the equation as follows (FTA 2018) but applying the Caltrans recommended exponent of 1.1:

$$PPV_{rcvr} = PPV_{ref} * (25/D)^{1.1} = 0.27 = 0.21 * (25/20)^{1.1};$$

Where PPV_{rcvr} is the predicted vibration velocity at the receiver position, PPV_{ref} is the reference value at 25 feet from the vibration source (the roller), and D is the actual horizontal distance to the receiver. Table 4.10-44 displays the Program's predicted worst-case construction vibration levels at the nearest noise-sensitive receptors, during construction activities at Rose Creek Bike Path (Bicycle and Pedestrian Improvements Element), New Segment C (Restoration of the Seawall Bulkhead Element), and Crown Point (Restoration of Shoreline Element).

Table 4.10-44
Predicted Worst-Case Construction Vibration at Nearest Sensitive Receptors

Program Element Component / Activity Phase	Anticipated Vibration Source Closest Distance (Feet)	Predicted PPV (Inches per Second) for Indicated Equipment Type	
		Roller	*Impact Pile Driver*
		PPV	*PPV*
Crown Point / Mobilization	110	N/A	0.13
Rose Creek Bike Path / Place AC Pavement	20	0.27	N/A
New Segment C / Place AC Pavement	25	0.21	N/A

Source: FTA 2018.
Notes: PPV = peak particle velocity; N/A = not applicable.

As shown in Table 4.10-44, during construction activities at Rose Creek Bike Path (Bicycle and Pedestrian Improvements Element), New Segment C (Restoration of the Seawall Bulkhead Element), and Crown Point (Restoration of Shoreline Element), construction vibration at the nearest residential receivers from on-site operation of a roller or impact pile driver would not surpass the guidance limit of 0.3 to 0.5 ips PPV for preventing damage to residential structures (Caltrans 2013). On-site operation of a roller during the Place AC Pavement activity phases for Rose Creek Bike Path and New Segment C would be greater than the Caltrans guidance of 0.2 ips PPV for building occupant annoyance; however, construction vibration and noise would be temporary.

Because the Program's predicted worst-case vibration levels during construction activities at Rose Creek Bike Path (Bicycle and Pedestrian Improvements Element), New Segment C (Restoration of the Seawall Bulkhead Element), and Crown Point (Restoration of Shoreline Element) would be less than the established building damage risk thresholds, vibration from Program construction activities would be **less than significant**.

Issue 5: Would the project result in land uses which are not compatible with aircraft noise levels as defined by an adopted airport Comprehensive Land Use Plan (CLUP)?

The San Diego International Airport is approximately 1.75 miles from the Program boundary at its nearest (i.e., from the southern boundary of Sea World Drive/San Diego River Site No. 3 – Triangle Restoration Area), or 4.9 miles at its furthest (i.e., from the northern boundary of Rose Creek Bike Path). The Improvement Zone is outside the 65 dB CNEL contour shown in the San Diego International Airport Land Use Compatibility Plan (San Diego County Regional Airport Authority 2025). Therefore, construction workers and post-construction operational or maintenance staff on site would not be exposed to excessive noise levels, and there would be a **less-than-significant impact** associated with aviation noise levels.

4.10.5 MITIGATION FRAMEWORK

The following mitigation measure (MM-NOI-1) specifically pertains to the construction activities that are predicted to exceed the 75 dBA L_{eq} 12-hour City guidance at a nearest noise-sensitive receptor, thus requiring temporary construction noise reduction measures during the construction of a respective Program element component. Figure 4.10-2, Temporary Construction Noise Barrier Extent Calculations, provides calculations to determine the extent/length of the temporary noise barriers required for MM-NOI-1. Table 4.10-45 summarizes the required noise abatement standards for each respective component's mitigation measure.

MM-NOI-1 NOISE ABATEMENT

During the construction of the following Program components, the City shall install noise abatement in order to result in adequate noise reduction at the nearest noise sensitive receptor, in accordance with Table 4.10-45, Noise Abatement Component Requirements.

Table 4.10-45
Noise Abatement Component Requirements

Component (Construction Phase)	Minimum Construction Noise Reduction (dBA)	Nearest Noise-Sensitive Receptors	Minimum Barrier Height Required (Feet)
Tecolote Creek and Fiesta Island Causeway Component (All 5 Phases)	12.9	Along Ocean Front Walk/Mission Beach Boardwalk, east of the element	9
Vacation Island Northwest (All 4 Phases)	7.4	On Sunset Road and Sands Drive, along the southern and eastern component boundaries	8
Vacation Island Northeast – Ingraham Street (All 5 Phases)	3.7	On Hummingbird Lane, along the southern and eastern component boundaries	7
Crown Point (Mobilization and Shoreline Stabilization)	9.2	On Riviera Drive, along the eastern component boundaries	11
West Sail Bay (All 3 Phases)	14	Along Bayside Walk, east of Mission Boulevard	9
Bonita Cove (All 6 Phases)	10.2	Along Bayside Lane and San Fernando Place, west of the element boundary	9
Rose Creek Bike Path (All 10 Phases)	15.5	Along Figueroa Boulevard, Magnolia Avenue, and Hornblend Street, east of the element boundary	9
Ocean Beach Bike Path (Demolition of AC Paving, Place AC Pavement, Form and Pour Concrete)	9.9	Along Point Loma Boulevard, south of the element boundary	8
Replace Segment A (All 4 Phases)	15.7	Along Ocean Front Walk/Mission Beach	13

Table 4.10-45
Noise Abatement Component Requirements

Component (Construction Phase)	Minimum Construction Noise Reduction (dBA)	Nearest Noise-Sensitive Receptors	Minimum Barrier Height Required (Feet)
		Boardwalk, east of the element boundary	
Replace Segment B (All 4 Phases)	15.7	Along Ocean Front Walk/Mission Beach Boardwalk, east of the element boundary	13
New Segment C (All 7 Phases)	15.5	Along Ocean Boulevard and Thomas Avenue, east of the element boundary	10
Access Improvements (All 4 Phases)	7.9	Along Ocean Front Walk/Mission Beach Boardwalk	8

Note: dBA = A-weighted decibels.

The City shall install noise abatement during the construction of each element listed in Table 4.10-45 during the respective phases specified in Section 4.10.4, Impacts Analysis on the site boundary fencing (or within, as practical and appropriate) in the form of sound blankets or comparable temporary solid barriers to occlude construction noise emission between the site (or specific equipment operation as the situation may define) and the noise-sensitive receptor(s) of concern (i.e., where the line of sight is blocked). By way of example, suspended sound blankets, field-erected plywood sheeting, or comparable temporary solid or flexible but sufficiently massive barriers (of minimum sound transmission class rating of 25) would occlude construction noise emission between the site and the noise-sensitive receptor(s) of concern.

In addition to the noise abatement component standards presented in Table 4.10-45 and discussed above, the following measures should be considered as supplemental abatement strategies to sufficiently reduce construction noise emission:

- **Administrative controls** (e.g., reduce operating time of equipment and/or prohibit usage of equipment type[s] within certain distances to a nearest receiving occupied off-site property).
- **Engineering controls** (change equipment operating parameters [e.g., speed, capacity], or install features or elements that otherwise reduce equipment noise emission [e.g., upgrade engine exhaust mufflers]).

4.10.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Issue 1: Short-Term Construction Noise

Wetland and Water Quality Improvements Element

Tecolote Creek and Fiesta Island Causeway Component

Temporary construction noise impacts associated with the Tecolote Creek and Fiesta Island Causeway component would be potentially significant without mitigation for receptors located within the screening distances identified in Table 4.10-7. With the implementation of **MM-NOI-1**, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at the Tecolote Creek and Fiesta Island Causeway component, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Restoration of Shoreline Element

Vacation Island NW

Temporary construction noise impacts associated with Vacation Island NW would be potentially significant without mitigation for receptors located within the screening distances identified in Table 4.10-10. With the implementation of **MM-NOI-1**, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Vacation Island NW, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Vacation Island NE – Ingraham Street

Temporary construction noise impacts associated with Vacation Island NE – Ingraham Street would be potentially significant without mitigation for receptors located within the screening distances identified in Table 4.10-12. With the implementation of **MM-NOI-1**, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Vacation Island NE – Ingraham Street, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Crown Point

Temporary construction noise impacts associated with Crown Point would be potentially significant without mitigation for receptors located within the screening distances identified in Table 4.10-17.

With the implementation of **MM-NOI-1**, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Crown Point, temporary construction-related noise would be **less than significant with mitigation incorporated**.

West Sail Bay

Temporary construction noise impacts associated with West Sail Bay would be potentially significant without mitigation for receptors located within the screening distances identified in Table 4.10-19. With the implementation of **MM-NOI-1**, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at West Sail Bay, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Bonita Cove

Temporary construction noise impacts associated with Bonita Cove would be potentially significant without mitigation for receptors located within the screening distances identified in Table 4.10-21. With the implementation of **MM-NOI-1**, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Bonita Cove, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Bicycle and Pedestrian Improvements Element

Rose Creek Bike Path

Temporary construction noise impacts associated with the Rose Creek Bike Path would be potentially significant without mitigation for receptors located within the screening distances identified in Table 4.10-31. With the implementation of **MM-NOI-1**, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Rose Creek Bike Path, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Ocean Beach Bike Path

Temporary construction noise impacts associated with the Ocean Beach Bike Path would be potentially significant without mitigation for receptors located within the screening distances identified in Table 4.10-34. With the implementation of **MM-NOI-1**, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour

City guidance at the nearest noise-sensitive receptor. Therefore, during construction activities at Ocean Beach Bike Path, temporary construction-related noise would be **less than significant with mitigation incorporated**.

Restoration of Seawall Bulkhead Element

Replace Segment A

Temporary construction noise impacts associated with activities along Segment A would be potentially significant without mitigation for receptors located within the screening distances identified in Table 4.10-36. With the implementation of **MM-NOI-1**, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would still exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor during Void Repairs activities at Segment A. Therefore, during construction activities along Segment A, temporary construction-related noise impacts would be **significant and unavoidable**.

Replace Segment B

Temporary construction noise impacts associated with activities along Segment B would be potentially significant without mitigation for receptors located within the screening distances identified in Table 4.10-38. With the implementation of **MM-NOI-1**, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would still exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor during Demolition activities at Segment B. Therefore, during construction activities along Segment B, temporary construction-related noise impacts would be **significant and unavoidable**.

Replace Segment C

Temporary construction noise impacts associated with activities along Segment C would be potentially significant without mitigation for receptors located within the screening distances identified in Table 4.10-40. With the implementation of **MM-NOI-1**, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would still exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor during all phases except Construct Seawall, Clearing and Grubbing, and Striping and Signage activities at Segment C. Therefore, during construction activities along Segment C, temporary construction-related noise impacts would be **significant and unavoidable**.

Access Improvements

Temporary construction noise impacts associated with Access Improvements activities would be potentially significant without mitigation for receptors located within the screening distances identified in Table 4.10-42. With the implementation of **MM-NOI-1**, construction noise during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would not exceed the 75 dBA L_{eq} 12-hour City guidance at the nearest noise-sensitive receptor. Therefore, during Access Improvements construction activities, temporary construction-related noise would be **less than significant with mitigation incorporated**.

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SOURCE: SANGIS 2023

DUDEK

0 900 1,800 Feet

FIGURE 4.10-1

Outdoor Ambient Sound Level Measurement Locations

Mission Bay Park Improvements Program EIR

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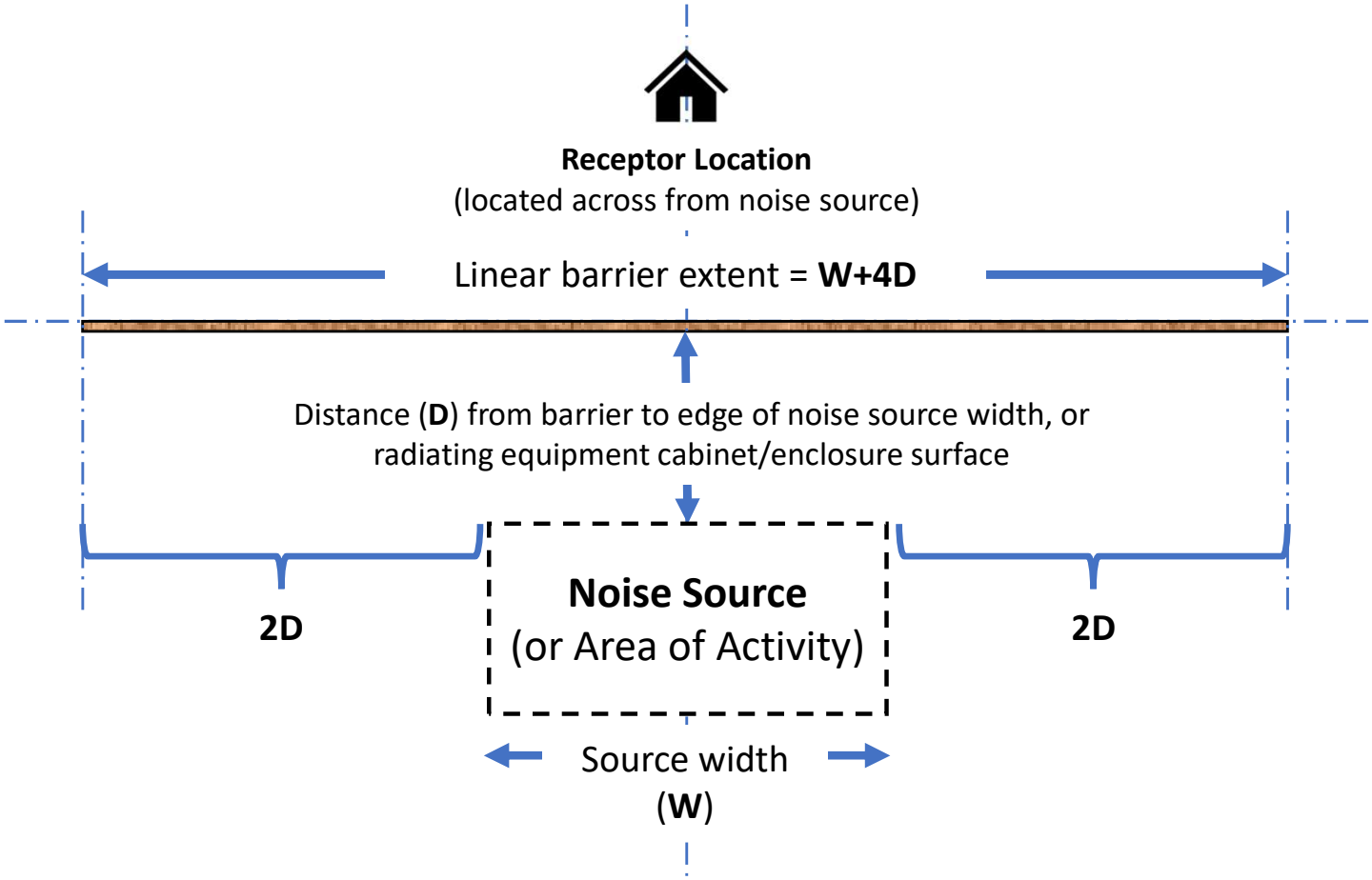

DUDEK

Source: Mission Bay Park Improvements Program EIR 2025; Dudek 2025

Figure 4.10-2
Temporary Construction Noise Barrier Extent Calculations

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4.11 RECREATION

This section describes the existing recreational conditions of the Mission Bay Park Improvement Zone (Improvement Zone), identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Mission Bay Park Improvements Program (Program).

4.11.1 EXISTING CONDITIONS

Parks and Recreational Facilities

The City of San Diego has over 42,000 acres of park and open space lands. The City's parks fall under the following four classifications:

- Population-based parks (commonly known as Neighborhood and Community parks), facilities and services are located in close proximity to residential development and are intended to serve the daily needs of the neighborhood and community. When possible, they adjoin schools in order to share facilities, and ideally are within walking/rolling distance of the residences within their service area. As the category's name implies, these parks are development-based.
- Resource-based parks are located at, or centered on, notable natural or man-made features (beaches, canyons, habitat systems, lakes, historic sites, and cultural facilities) and are intended to serve the citywide population, as well as visitors.
- Open space lands are City-owned lands located throughout the City, consisting of canyons, mesas, and other natural landforms. This open space is intended to preserve and protect native plants and animals, while providing public access and enjoyment by the use of hiking, biking, and equestrian trails.
- Joint use facilities can include any land area or physical structure shared by one or more public or not-for-profit entities.

Mission Bay Park is considered a resource-based park. Resource-based parks are intended to preserve and make available to all community members and visitors those areas of outstanding scenic, natural, or cultural interest (City of San Diego 2024b).

Mission Bay Park

Mission Bay Park comprises 27 miles of shoreline and provides a variety of recreational facilities and activities, including boat docks and launching facilities, sailboat and motor rentals, 14 miles of biking and walking/rolling paths, basketball courts, and play areas for children (City of San Diego 2024b).

Mission Bay Park is characterized as a Regional Park, specifically a Regional Developed Park and a Regional Resource-Based Park. A regional developed park is characterized with the following guidelines (City of San Diego 2024a):

- Serves local and regional residents and visitors
- Developed amenities should not impair the distinctive features or resources
- Development for recreation use is typically controlled by a master plan

A Regional Resource-Based Park is characterized with the following guidelines:

- Serves local and regional residents and visitors
- Provides habitat and resource protection
- Development for recreation use is typically controlled by a master plan

4.11.2 RELEVANT PLANS, POLICIES, AND ORDINANCES

State

California Public Park Preservation Act of 1971

The California Public Park Preservation Act (California Public Resources Code Sections 5400 et seq.) was enacted to protect public parks and recreational lands from being converted to non-recreational uses without proper review and replacement. Public Resources Code Section 5401 states that no city, city and county, county, public district, or agency of the state, including any division, department or agency of the state government, or public utility, shall acquire (by purchase, exchange, condemnation, or otherwise) any real property, which property is in use as a public park at the time of such acquisition, for the purpose of utilizing such property for any nonpark purpose, unless the acquiring entity pays or transfers to the legislative body of the entity operating the park sufficient compensation or land, or both, as required by the provisions of this chapter to enable the operating entity to replace the park land and the facilities thereon.

California Coastal Act

The California Coastal Commission (CCC) was established by voter initiative in 1972 and later made permanent by the Legislature through the adoption of the California Coastal Act in 1976 (California Public Resources Code, Section 30000 et seq.). In partnership with coastal cities and counties, the CCC plans and regulates coastal development, including construction of buildings, land divisions, changes in the use of the intensity of land, and public access to the coast, in the coastal zone. Under the California Coastal Act, cities and counties are required to prepare Local Coastal Programs to obtain

authority to issue coastal development permits for projects within their jurisdiction. Local Coastal Programs consist of Land Use Plans and Implementation Plans and conform to the policies of the California Coastal Act. The CCC is responsible for issuing coastal development permits until a local government has a Local Coastal Program certified by the CCC.

Local

City of San Diego General Plan

The City has over 38,930 acres of park and open space lands that offer a diverse range of recreational opportunities. The Recreation Element contains goals and policies to address the challenges the City faces to preserve, protect, develop, operate, maintain, and enhance public recreation opportunities and facilities throughout the City (City of San Diego 2024b). The purpose of the element is to help manage the increasing demand on existing/remaining usable park and recreation resources/facilities, develop open space lands and resource-based parks for population-based recreational purposes, ensure the distribution and access to parks is achieved equally Citywide recognizing the unique differences among communities, and achieve livable neighborhoods and communities. Consistency with the goals and policies in the Recreation Elements can be found in Table 4.9-1 of Section 4.9, Land Use and Planning, of this Program Environmental Impact Report (EIR).

City of San Diego Parks Master Plan

The City of San Diego Parks Master Plan was adopted in August 2021 and serves as a comprehensive policy framework guiding the City's park and recreation system. The Parks Master Plan identifies policies, actions, and partnerships for planning parks, recreation facilities, and programs that reflect the vision of a world-class Citywide network of recreational experiences to engage, inspire, and connect all San Diegans (City of San Diego 2021d). The Parks Master Plan transitions the City from a land-based standard to a recreational value-based standard. The Recreational Value-Based Park Standard establishes a point value to represent recreational opportunities within population-based parks (City of San Diego 2021d).

City of San Diego Mission Bay Park Master Plan

The Program is located within Mission Bay Park, which is a Community Planning Area in the City of San Diego. The Mission Bay Park Master Plan (MBPMP) was adopted by the City of San Diego City Council in August 1994 and most recently amended in May 2024. The MBPMP serves as the guiding planning policy document for all of Mission Bay Park, and its fundamental goal is to identify new recreation demands and plan for the continuing development of the Park that will sustain the diversity and quality of recreation and protect and enhance the Bay's environmental resources for future generations. The MBPMP outlines goals and objectives to support a balanced management of the

Park's land and water resources with public recreation and the operation of economically successful commercial leisure businesses. Goals and objectives of the MBPMP cover land and water use, environment, access and circulation, economics, and aesthetics and design (City of San Diego 2024a).

City of San Diego Municipal Code

The City of San Diego Municipal Code establishes a comprehensive regulatory framework governing the use, management, and preservation of public parks, playgrounds, beaches, tidelands, and other recreational properties within the city. These regulations are primarily detailed in Chapter 6, Article 3 of the San Diego Municipal Code, which outlines the policies and rules to ensure the safe and equitable use of these public spaces.

City of San Diego City Charter

Section 55.2 of the City Charter outlines the allocation and use of lease revenues generated from Mission Bay Park. It establishes the Mission Bay Park Improvement Fund and the San Diego Regional Parks Improvement Fund, specifying that a portion of annual lease revenues exceeding a certain threshold is to be allocated to these funds for capital improvements within the park. Section 55.2(c) specifies that funds in the Mission Bay Park Improvement Fund may be expended only in the Improvement Zone, to restore wetlands, wildlife habitat, and other environmental assets within the Improvement Zone; to preserve the beneficial uses of the Improvement Zone including, but not limited to, water quality, boating, swimming, fishing, and picnicking by maintaining navigable waters and eliminating navigational hazards; to restore embankments and other erosion control features; and to improve the conditions of the Improvement Zone for the benefit and enjoyment of residents and visitors, consistent with the MBPMP (City of San Diego 2006).

4.11.3 SIGNIFICANCE DETERMINATION

Thresholds used to evaluate potential impacts related to recreation are based on applicable criteria in Appendix G of the California Environmental Quality Act Guidelines (14 CCR 15000 et seq.) and the City's Significance Determination Thresholds (City of San Diego 2022a). The following issue questions are addressed in this section:

1. 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?
2. Would the project include recreational facilities or require the construction or expansion of recreational facilities which would have an adverse physical effect on the environment?

4.11.4 IMPACTS ANALYSIS

Issue 1: 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?

The Program aims to restore wetlands, wildlife habitat, and other environmental assets within the Improvement Zone. The Program would preserve the beneficial uses of the Improvement Zone including, but not limited to, water quality, boating, swimming, fishing, and picnicking by maintaining navigable waters and eliminating navigational hazards; to restore embankments and other erosion control features.

Wetlands and Water Quality Improvements Element

The Wetland and Water Quality Improvements Element would involve water quality improvements and wetland habitat creation to enhance existing wetland habitat, jurisdictional limits, topography, and tidal influence. The Wetland and Water Quality Improvements Element involves the location-specific North Fiesta Island component, Tecolote Creek and Fiesta Island Causeway component, and Cudahy Creek component.

The North Fiesta Island component would create and restore tidal wetlands on Fiesta Island. The North Fiesta Island component would also include the construction of a bridge and gate along Fiesta Island Road to allow seasonal public access along the external beach areas of the site. A pedestrian and bicycle unpaved path would be constructed on the eastern perimeter of the site, stopping at a proposed picnic feature and marsh overlook at the northern end of North Fiesta Island. Seasonal public access to the proposed pedestrian and bicycle path and public beaches along the eastern shore of the North Fiesta Island component would be restricted during the least turn nesting season, approximately February 15 through September 15, where public access is currently year-round. The North Fiesta Island Wetland component in combination with the adjacent Upland Habitat Expansion Site No. 4 – Fiesta Island Least Tern Preserve Area (described below) would be subject to seasonal restrictions that would reduce public access and use of North Fiesta Island. However, the North Fiesta Island component design would include a road connection from the east side of North Fiesta Island to the west side, south of the proposed channel, to provide continued access to both sides of the island for vehicles, bicycles, pedestrians, and visitors. Given the continued access to the recreational features of Fiesta Island and the rest of Mission Bay Park that would be available during construction and operation of North Fiesta Island component, implementation of North Fiesta Island component would not substantially increase the use of the other recreational areas at Fiesta Island or in Mission Bay Park such that substantial physical deterioration of the facility would occur or be accelerated.

The Tecolote Creek component would create approximately 12 acres of wetlands in southeastern Mission Bay Park. The existing beach area on the northern boundary, which is approximately 277 linear feet of sandy beach, would be transformed into a sand dune with associated coastal strand vegetation. Transformation of this beach area would result in a reduction of less than 1% of sandy beach in Mission Bay Park, which contains approximately 19 total miles of sandy beach. This reduction would not result in an increased use of other beach areas, as this existing beach area is a small fraction of the total beach area Mission Bay Park, and would not significantly displace users. Bike and pedestrian paths would continue at this location, and there would be no significant impacts to the park and recreational facilities at this location.

The upland areas of the Cudahy Creek component, both to the north and south of the cove area, have turf cover as well as asphalt parking areas used by day visitors to the area and maintained by the City Parks and Recreation Department. The Cudahy Creek component activities would occur mainly within Mission Bay and would not impact the areas used by visitors, and no significant impacts to park and recreational facilities would occur.

The proposed wetland and water quality improvement components would not result in additional visitors using the recreational facilities of Mission Bay Park, nor would they induce an increased use of certain areas of Mission Bay Park, due to the size and variety of facilities present. Therefore, proposed wetland and water quality improvement components would result in **less-than-significant** impacts regarding an increased use of existing neighborhood and regional parks or other recreational facilities.

Restoration of Shoreline Element

Shoreline restoration would occur where shorelines have eroded over time, leading to narrowed beaches and degraded rip rap. These eroded shores have resulted in limited recreational beach space at select locations throughout Mission Bay. Proposed beach nourishment would provide additional or improved recreational opportunities at the proposed shoreline restoration locations. The addition of recreational beach is minor compared to the existing beach and recreational space within the Improvement Zone. As such, shoreline restoration activities would not increase recreational uses or attract new visitors such that substantial physical deterioration of the beaches would occur or be accelerated. Impacts would be **less than significant**.

Upland Habitat and Preserve Expansion Element

The proposed Upland Habitat and Preserve Expansion Element would enhance and expand upland habitat biological resources and restore/enhance suitable upland habitat for listed plant and wildlife species known to occupy existing preserves and/or that occur within Mission Bay. The following locations have been identified as suitable for the proposed upland habitat and preserve expansion.

Fiesta Island Habitat and Preserve Expansion Areas

Recreation at these preservation areas would not cease, as some level of recreational use is planned and would be separated by vegetated buffer zones and/or fencing. The expansion of preservation areas would not reduce recreational opportunities, such that recreation at other parks or recreational areas would increase. Site No. 2 - Fiesta Island North Central site is currently utilized as an informal hiking and dog use area. This area would incorporate fencing and signage to keep users and pets out of the restoration area. However, a trail navigating the perimeter of the restoration area would be maintained, and users and pets would still have access to the expansive dog park located on the southeast side of Fiesta Island. The implementation of the Site No. 4 – Fiesta Island Least Tern Preserve Area would close the existing perimeter road that circles the outside edge of North Fiesta Island along the beach and would close the entire preserve area to public access year-round in order to protect the habitat for Least Tern nesting and feeding activity. The Site No. 4 Fiesta Island Least Tern Preserve Area would not be available for recreational uses. The existing area does not contain any recreational facilities, but was used for informal and passive recreational activities, primarily along the road and the beach. The proposed design includes connecting the existing road on the eastern side of North Fiesta Island to the western side of North Fiesta Island, to provide continued access to both sides of the island and to provide access to the beach areas for recreational purposes. Therefore, the proposed Site No. 4 Fiesta Island Least Tern Preserve Area would reduce the amount of area on North Fiesta Island available for passive recreation but would not entirely restrict recreational activities on North Fiesta Island. Due to the availability of similar recreational opportunities on Fiesta Island and across Mission Bay Park during construction and after construction of program improvements, implementation of this element would not result in an increase of recreational users in certain areas such that substantial physical deterioration of the facility would occur or be accelerated.

Sea World Drive/San Diego River Upland Habitat and Preserve Expansion Areas

Existing habitat preservation areas along Sea World Drive/San Diego River would be improved and expanded at the locations identified in Figure 3-18, Cloverleaf Enhancement Area-Site No. 5a; Figure 3-19, Triangle Enhancement Area-Site No. 5b; and Figure 3-20, South Shore Restoration Area-Site No. 5c, in Chapter 3, Project Description. Restoration of these areas would not impact existing park and recreational areas. The proposed habitat enhancement at Site No. 5a – Cloverleaf Enhancement Area and Site No. 5b – Triangle Enhancement Area would not be located within any areas currently utilized for recreational purposes. Further the proposed actions would enhance existing habitat and would not encourage increased visitors or increased use of nearby recreational facilities.

The proposed habitat expansion at Site No. 5c – South Shores East Restoration Area would expand habitat in areas that are currently used for passive recreation, including informal trails. However, the design of the habitat restoration areas would avoid the existing pedestrian walkway along the

bayfront and the existing model airplane recreation area in the southern portion of the site. Therefore, continued access to recreational facilities would occur, and the proposed improvements would not substantially increase the use of the other recreational areas at Fiesta Island or in Mission Bay Park such that substantial physical deterioration of the facility would occur or be accelerated.

In conclusion, the 4,235-acre Mission Bay Park has plentiful park and recreational opportunities, and implementation of the proposed Program would not significantly impact the existing park and recreational facilities; rather, it would provide water quality and water circulation improvements, habitat improvements, and visitor-serving improvements. The Program would provide improved recreational opportunities to residents and visitors in certain areas. These improvements would continue to serve the existing residents in the San Diego area, as well as visitors, and would not introduce additional visitors or residents to the area, resulting in the need for new parks or recreational facilities. Overall, the Program activities would not result in obstruction of park and recreational facilities, such that other parks or recreational facilities would have increased use. Impacts would be **less than significant.**

Bicycle and Pedestrian Improvements Element

Construction at Rose Creek Bike Path, Fiesta Island Causeway Path, and Ocean Beach Bike Path would require temporary rerouting of existing users. The Robb Field/Gateway Connectivity Path does not require rerouting of existing users. Restrictions on park access would be limited and would include at approximately 5 days of construction at the Fiesta Island Causeway, where bicycle access to the island would be restricted at night. All other construction activities would provide alternative routes and would not impact access to parks or recreational facilities. Although construction of these improvements would result in temporary closures of the affected lanes, these improvements would improve the park and recreational facilities long-term. These short-term construction impacts are minor and would not require increased use of other parks and recreational facilities, which would result in further deterioration of the existing parks or recreational facilities. Impacts would be **less than significant**.

Restoration of Seawall Bulkhead Element

The Bulkhead and Seawall Improvements Element would repair and extend the seawall along the frontage of Mission Beach to Pacific Beach. Construction of a new seawall from the end of Thomas Avenue, northwards approximately 375 feet to Grand Avenue/Crystal Pier, would require closure of the boardwalk in order to provide the necessary clearance for wall footing excavation. However, it is assumed that the adjacent parking lot, sidewalks and roadways could be used as a temporary pedestrian traffic detours during the approximate 3-month construction, while still maintaining public parking areas. Each existing beach access location would be closed during the construction of

replacement stairs; however, the boardwalk could remain partially open. Access to the beach and boardwalk at these locations would be temporarily rerouted. However, the beach and boardwalk would remain open and would not result in increased use of other parks or recreational facilities. Impacts would be **less than significant**.

Issue 2: Would the project include recreational facilities or require the construction or expansion of recreational facilities which would have an adverse physical effect on the environment?

The Program location consists of the Improvement Zone, which encompasses the 4,235-acre Mission Bay Park, along with additional areas in all directions. The Program aims to restore wetlands, wildlife habitat, and other environmental assets within the Improvement Zone. The Program would preserve the beneficial uses of the Improvement Zone, including, but not limited to, water quality, boating, swimming, fishing, and picnicking by maintaining navigable waters and eliminating navigational hazards; to restore embankments and other erosion control features. As such, implementation of the Program would improve existing parks and recreational facilities. The Program would result in the following impacts related to construction, though not expansion, of recreational facilities, including active recreational facilities such as trails, bridges, and bike paths, and passive recreation such as wetland and upland habitats. The Program would also result in a decrease in road access to the western portion of North Fiesta Island. The various impacts from such are the subject of analysis throughout the air quality (Section 4.1), biological resources (Section 4.2), cultural resources (Section 4.6, Historical Resources, and Section 4.12, Tribal Cultural Resources), and noise (Section 4.10) sections in this EIR. The remaining sections in this EIR do not find that the Program would have significant impacts on the environment.

Wetlands and Water Quality Improvements Element

The Wetland and Water Quality Improvements Element would involve water quality improvements and wetland habitat creation to enhance existing wetland habitat, jurisdictional limits, topography, and tidal influence. The Wetland and Water Quality Improvements Element involves the location-specific North Fiesta Island component, Tecolote Creek and Fiesta Island Causeway component, and Cudahy Creek component.

The North Fiesta Island component would create and restore tidal wetlands on Fiesta Island. The North Fiesta Island component would involve the construction of recreational facilities, specifically a new public access trail and lookout turnaround. However, this would not be an expansion as it would replace the existing continuous roadway around the entire North Fiesta Island with an approximately 1,340-foot trail providing access to only the east side of North Fiesta Island. Restrictions on public

access during the least tern nesting season would continue. The North Fiesta Island component would restore and enhance the wetlands and the hydrology and water quality of this area.

The Tecolote Creek and Fiesta Island Causeway component would create wetlands within existing areas of open water and sandy beach, and would develop a channel under the Fiesta Island Causeway to allow increased water flow and better water quality. This portion of the component would temporarily impact the causeway, used for vehicle, bicycle, and pedestrian access to Fiesta Island, however continued access throughout construction would be possible using one travel lane and traffic control measures. This component would also include construction of sand dune and wetland marsh along the bayside bikeway bicycle route but would not prevent the use of the bikeway. The Tecolote Creek component would not involve the construction or expansion of specific recreational facilities but would involve construction to the access route to Fiesta Island.

The Cudahy Creek component activities would occur mainly within Mission Bay within open water and beach areas, and would not impact the recreational facilities at Mission Bay Park.

The proposed wetland and water quality improvements would result in temporary construction activities within Mission Bay Park that would have the potential to result in physical impacts to the environment. As addressed throughout Chapter 4 of this EIR, the wetland and water quality improvements have the potential to significantly impact air quality (Section 4.1), biological resources (Section 4.2), and noise (Section 4.10). Impacts would be **potentially significant**.

Restoration of Shoreline Element

Where eroded shores have resulted in limited recreational beach space, the proposed beach nourishment would provide additional or improved recreational opportunities. Additional shoreline restoration benefits include enhancement of habitat value and water quality. Shoreline restoration would result in beneficial effects to the environment during operation. However, during construction, ground-disturbing activities, and activities involving heavy equipment would have the potential to result in physical impacts to the environment, especially with the potential for overlapping construction activities of other improvement components within the proposed Program. As addressed throughout Chapter 4 of this EIR, the shoreline restoration would have the potential to create significant negative impacts on the environment, specifically regarding air quality (Section 4.1), biological resources (Section 4.2), and noise (Section 4.10). Impacts would be **potentially significant**.

Upland Habitat and Preserve Expansion Element

The proposed Upland Habitat and Preserve Expansion Element would enhance and expand upland habitat and restore/enhance suitable upland habitat for listed plant and wildlife species known to occupy existing preserves and/or that occur within Mission Bay. The identified areas would expand

and preserve wildlife and would be prohibited from use for recreational purposes. This element would not include the construction or expansion of recreational facilities and would have a beneficial effect on the environment by stabilizing and increasing sensitive habitat, including for Nuttall's lotus populations, through native habitat establishment, enhancement, and improvement of existing habitat that is appropriate for this species. However, due to the proposed construction activities that would occur within Mission Bay Park, the Upland Habitat Expansion and Preservation Element would have the potential to result in potentially significant temporary impacts to the environment, specifically regarding air quality (Section 4.1), biological resources (Section 4.2), and noise (Section 4.10). Impacts would be **potentially significant**.

Bicycle and Pedestrian Improvements

This component would include improvements to missing path connectivity, existing pavement conditions, wayfinding signage, path geometry, and safety and security. The bicycle and pedestrian path improvements are Bay wide and consist of condition dependent improvements, updated signage concept for Mission Bay, repairs at parking lots, and sustainable lighting. Specific improvements would be located at the Rose Creek Bike Path, Fiesta Island Causeway Path, and Ocean Beach Bike Path, as shown in Figure 3-21 through Figure 3-23, Bicycle and Pedestrian Improvements, in Chapter 3.

Pavement improvements would consist of the removal and replacement of existing sub-standard pavement. The addition of retaining walls and concrete barriers is proposed for both the Fiesta Island Causeway and Robb Field/Gateway Connectivity Path. Construction at Rose Creek Bike Path, Fiesta Island Causeway Path, and Ocean Beach Bike Path would require temporary rerouting of existing users. The Robb Field/Gateway Connectivity Path does not require rerouting of existing users. Operation of the bicycle and pedestrian paths would generally be limited to cleaning, clearing, and repairs, as necessary. As addressed throughout Chapter 4 of this EIR, the bicycle and pedestrian path improvements would have the potential to significantly impact the environment, specifically regarding air quality (Section 4.1), cultural resources (Section 4.6 and Section 4.12), and noise (Section 4.10). Impacts would be **potentially significant**.

Restoration of Seawall Bulkhead Element

The Restoration of Seawall Bulkhead Element proposes expansion of the new seawall from the end of Thomas Avenue, northwards to Grand Avenue/Crystal Pier, as well as the replacement of two other segments in need of repair and replacement. The restoration and expansion of the seawall aims to address damage, erosion, fall risk, accessibility, and improve sea level rise resilience. Because the seawall is a feature in areas used for recreational activities, construction would result in temporary physical impacts to the environment during ground-disturbing construction activities. As addressed throughout Chapter 4 of this EIR, the seawall improvements would have the potential to create

significant negative impacts on the environment, specifically regarding air quality (Section 4.1), cultural resources (Section 4.6 and Section 4.12), and noise (Section 4.10). Impacts would be **potentially significant**.

In conclusion, the Program would provide water quality and water circulation improvements, habitat improvements, and visitor-serving improvements. The Program's visitor-serving improvements would include improvements to existing park and recreational facilities. Construction and/or expansion of existing facilities would have beneficial impacts to the environment through wetland improvements. As addressed throughout Chapter 4 of this EIR, the Program improvements would have the potential to significantly impact the environment, specifically regarding air quality (Section 4.1), biological resources (Section 4.2), tribal cultural resources (Section 4.12), historical resources (Section 4.6), and noise (Section 4.10). Impacts would be **potentially significant**.

4.11.5 MITIGATION FRAMEWORK

Impacts would be significant as addressed throughout Chapter 4 of this EIR, specifically regarding air quality (**MM-AQ-1 and MM-AQ-2**; see Section 4.1), biological resources (**MM-BIO-1 through MM-BIO-8**; see Section 4.2), cultural resources (**MM-CUL-1 through MM-CUL-5**; see Section 4.6, Historical Resources), and noise (**MM-NOI-1**; see Section 4.10). Mitigation set out in those sections is required.

4.11.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Issue 1: Deterioration of Parks and Recreational Facilities

Impacts would be **less than significant,** and mitigation is not required.

Issue 2: Construction or Expansion of Recreational Facilities

With the implementation of mitigation measures **MM-AQ-1, MM-AQ-2**and **MM-NOI-1**, these impacts would be reduced to less than significant. However, for biological resources and cultural resources mitigation measures **MM-BIO-1 through MM-BIO-8** and **MM-CUL-1 through MM-CUL-5** would be implemented but would not reduce impacts to below the level of significance**.** Measures that mitigate significant impacts are described in further detail within the section of the EIR that they correspond with. Impacts would be **significant and unavoidable.**

4.12 TRIBAL CULTURAL RESOURCES

This section of the Environmental Impact Report (EIR) includes an analysis of the impacts to Tribal Cultural Resources (TCRs) that may result from the proposed Program. This section also describes the associated existing conditions of the Mission Bay Park Improvement Zone (Improvement Zone) and vicinity, identifies associated regulatory requirements, evaluates potential impacts, and identifies mitigation measures related to implementation of the proposed Mission Bay Park Improvements Program (Program). The analysis in this section is based, in part, on the following report:

- Cultural Resources Constraints Analysis for the Mission Bay Park Improvements Program, dated April 2025, prepared by Dudek (CRCA) (Appendix N)
- Geotechnical and Geologic Hazard Evaluation, Mission Bay Park Improvements Project, San Diego, California, 2019, Prepared by The Bodhi Group Inc. (Appendix P)
- Mission Beach Seawall and Bulkhead Memorandum, dated September 1, 2021, updated June 6, 2025, Dudek (Appendix O)

4.12.1 EXISTING CONDITIONS

The environmental setting, which includes a discussion of the cultural background of the San Diego Region and the existing condition of TCRs, is contained below.

A TCR is defined as a site, feature, place, cultural landscape, sacred place, or object, which is of cultural value to a Tribe, and is either on or eligible for listing in the national, state, or a local historic register, or the lead agency, at its discretion, chooses to treat the resource as a TCR (PRC Section 21074).

Cultural Context

Evidence for continuous human occupation in the San Diego region spans the last 10,000 years. Various attempts to parse out variability in archaeological assemblages over this broad time frame have led to the development of several cultural chronologies; some of these are based on geologic time, most are based on temporal trends in archaeological assemblages, and others are interpretive reconstructions. Each of these reconstructions describes essentially similar trends in assemblage composition in more or less detail. This research employs a common set of generalized terms used to describe chronological trends in assemblage composition: Paleoindian (pre-5500 BC), Archaic (8000 BC–AD 500), Late Prehistoric (AD 500–1769), and Ethnohistoric (post-AD 1769). It is important to note that Native American aboriginal lifeways did not cease at European contact. Protohistoric refers to the chronological trend of continued Native American aboriginal lifeways at the cusp of the recorded historic period in the Americas.

The tribal cultural context spans all of the archaeologically based chronologies further described below.

Tribal Cultural Context

The Kumeyaay (also known as the Ipay/Tipay) have roots that extend thousands of years in San Diego County and northern Baja California. The pre-contact cultural sequences are locally characterized by the material culture recovered during archaeological investigations as early as the 1920s, and through early accounts of Native American life in San Diego, recorded as a means to salvage scientific knowledge of native lifeways. The best information of Native American lifeways, however, comes from the Kumeyaay themselves, from the stories and songs passed down through the generations, in their own words. According to ethnographies based on interviews with local tribal elders, there are hundreds of words that describe a given landform, showing a close connection with nature. There are also stories associated with the land. The San Diego area in general, including Old Town, the San Diego River Valley and the City as it existed as late as the 1920s, was known as qapai (meaning uncertain). According to Kumeyaay elder Jane Dumas, some native speakers referred to what is now I-8 as oon-ya, meaning trail or road, describing one of the main routes linking the interior of San Diego with the coast. The Kumeyaay are the identified Most Likely Descendants (MLDs) for all Native American human remains found in the City.

Existing Conditions

Mission Bay is an aquatic park composed of 4,235 acres. Originally a marshland, the City developed Mission Bay "into a tourist and recreational center to help diversify the City's economy" (City of San Diego 2019a). Over a period of 20 years between the 1940s and 1960s, Mission Bay was dredged, and park lands were established (City of San Diego 2019a). Fiesta Island and Vacation Island are manufactured island parks resulting from this effort. The elevation of the Improvement Zone area of potential effects ranges from sea level to roughly 20 feet above mean sea level.

Existing conditions are identified in the CRCA prepared by Dudek. A summary is provided in Section 4.6, Historical Resources.

Native American Heritage Commission (NAHC) Sacred Lands File Search

Dudek requested a search of the NAHC Sacred Lands File for the Improvement Zone area of potential effects on March 10, 2025. A search of this type requires NAHC staff to review their list for the presence of Native American sites, which are organized spatially based on a Public Land Survey System section grid (measuring 1 square mile). The NAHC responded on March 25, 2025, with positive results, but it did not specify whether resources had been identified within the Improvement Zone APE. The NAHC additionally provided a list of Native American tribes and individuals/organizations with traditional geographic knowledge. Outreach letters were mailed on March 26, 2025, to all Native American group

representatives included on the NAHC contact list. These letters attempt to solicit additional information relating to Native American resources that may be impacted by the Improvement Zone APE. Native American tribe consultation is summarized below.

Tribal Correspondence

Under AB 52, government-to-government consultation with Native American tribes would be initiated by the City of San Diego with Tribes that have requested notification. The government-to-government consultation with Native American tribes under AB 52 would begin when the City sends the 45-day notification letter to tribes on the day this EIR goes out for public review.

The City met with Lisa Cumper, Tribal Historic Preservation Officer for Jamul Indian Village on July 28. 2025 and Ms. Cumper informed the City that there is an increased potential of encountering unanticipated TCR during ground disturbing activities associated with the Restoration of Seawall Bulkhead Element. Ms. Cumper stated that a natural source of pitch used by the Kumeyaay to adhere projectile points to shafts is located in the area and projectile points have been linked to the area of the seawall. Ms. Cumper recommended cultural monitoring during ground disturbance associated with the Restoration of Seawall Bulkhead Element.

City-led Tribal consultation continues for the Program in accordance with AB 52.

4.12.2 RELEVANT PLANS, POLICIES, AND ORDINANCES

The following describes the planning framework and additional regulatory documents, plans, and policies relevant to TCRs for the proposed Program.

Federal

Native American Graves Protection and Repatriation Act

The Native American Graves Protection and Repatriation Act was enacted on November 16, 1990, to address the rights of lineal descendants, Indian tribes, and Native Hawaiian organizations to Native American cultural items, including human remains, funerary objects, sacred objects, and objects of cultural patrimony. The act assigned implementation responsibilities to the Secretary of the Interior.

National Historic Preservation Act and National Register of Historic Places

The National Register of Historic Places (NRHP) is the official list of the nation’s historic places worthy of preservation. The NRHP, as authorized by the National Historic Preservation Act of 1966, is part of a national program to coordinate and support public and private efforts to identify, evaluate, and protect America's historic and archaeological resources. Once listed in the NRHP, a resource or

property is officially recognized as historically significant to the nation, the state, or the community. Properties listed (or potentially eligible for listing) in the NRHP must meet certain significance criteria and possess integrity of form, location, or setting. Barring exceptional circumstances, resources generally must be at least 50 years old to be considered for listing in the NRHP.

Criteria for listing in the NRHP are stated in the Code of Federal Regulations (36 CFR 60). A resource may qualify for listing if there is quality of significance in American history, architecture, archaeology, engineering, and culture present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and where such resources:

1. Are associated with events that have made a significant contribution to the broad patterns of history.
2. Are associated with the lives of persons significant in the past.
3. Embody the distinctive characteristics of a type, period, or method of construction; represent the work of a master; possess high artistic values; or represent a significant and distinguishable entity whose components may lack individual distinction.
4. Have yielded, or may be likely to yield, information important in prehistory or history.

Eligible properties must meet at least one of the NRHP criteria and exhibit integrity, measured by the degree to which the resource retains its historical properties and conveys its historical character, the degree to which the original historic fabric has been retained, and the reversibility of changes to the property. The fourth criterion is typically reserved for archaeological and paleontological resources.

State

California Environmental Quality Act

The following California Environmental Quality Act (CEQA) statutes and CEQA Guidelines are relevant to the analysis of historic, archaeological and TCRs:

California Public Resources Code Section 21083.2(g): Defines "unique archaeological resource."

1 California Public Resources Code Section 21084.1 and CEQA Guidelines Section 15064.5(a): Defines cultural resources. In addition, CEQA Guidelines Section 15064.5(b) defines the phrase "substantial adverse change" in the significance of a cultural resource. It also defines the circumstances when a project would materially impair the significance of a cultural resource.

2 California Public Resources Code Section 21074 (a): defines "Tribal cultural resources" and Section 21074(b): defines a "cultural landscape."

3 California Public Resources Code Section 5097.98 and CEQA Guidelines Section 15064.5(e): These statutes set forth standards and steps to be employed following the accidental discovery of human remains in any location other than a dedicated ceremony.

4 California Public Resources Code Sections 21083.2(b)-(c) and CEQA Guidelines Section 15126.4: These statutes and regulations provide information regarding the mitigation framework for archaeological and historic resources, including options of preservation-in-place mitigation measures; identifies preservation-in-place as the preferred manner of mitigating impacts to significant archaeological sites.

Under CEQA, a project may have a significant effect on the environment if it may cause "a substantial adverse change in the significance of an historical resource" (California Public Resources Code Section 21084.1; CEQA Guidelines Section 15064.5[b]). A "historical resource" is any site listed or eligible for listing in the California Register of Historical Resources (CRHR). The CRHR listing criteria (14 CCR 15064.5[a][3]) are intended to examine whether the resource in question:

A. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

B. Is associated with the lives of persons important in our past;

C. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

D. Has yielded, or may be likely to yield, information important in pre-history or history.

The term "historical resource" also includes any site described in a local register of historical resources or identified as significant in a historical resources survey (meeting the requirements of California Public Resources Code Section 5024.1[g]).

All historical resources and unique archaeological resources – as defined by statute – are presumed to be historically or culturally significant for purposes of CEQA (California Public Resources Code Section 21084.1; 14 CCR Section 15064.5[a]). The lead agency is not precluded from determining that a resource is a historical resource even if it does not fall within this presumption (California Public Resources Code Section 21084.1; 14 CCR Section 15064.5[a]). A site or resource that does not meet the definition of "historical resource" or "unique archaeological resource" is not considered significant under CEQA and need not be analyzed further (California Public Resources Code Section 21083.2[a]; 14 CCR Section15064.5[c][4]).

Pursuant to these sections, CEQA first evaluates whether a project site contains any historical resources, then assesses whether that project will cause a substantial adverse change in the

significance of a historical resource such that the resource's historical significance is materially impaired.

When a project significantly affects a unique archaeological resource, CEQA imposes special mitigation requirements.

Finally, CEQA Guidelines Section 15064.5 assigns special importance to human remains and specifies procedures to be used when Native American remains are discovered. These procedures are set forth in California Public Resources Code Section 5097.98.

California Register of Historical Resources

In California, the term "cultural resource" includes but is not limited to "any object, building, structure, site, area, place, record, or manuscript which is historically or archaeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California" (California Public Resources Code Section 5020.1(j)). In 1992, the California legislature established the CRHR "to be used by state and local agencies, private groups, and citizens to identify the state's cultural resources and to indicate what properties are to be protected, to the extent prudent and feasible, from substantial adverse change" (California Public Resources Code Section 5024.1(a)). A resource is eligible for listing in the CRHR if the State Cultural Resources Commission determines that it is a significant resource and that it meets any of the following NRHP criteria (California Public Resources Code Section 5024.1(c)):

1. Associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage.
2. Associated with the lives of persons important in our past.
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values.
4. Has yielded, or may be likely to yield, information important in prehistory or history.

Resources less than 50 years old are not considered for listing in the CRHR but may be considered if it can be demonstrated that sufficient time has passed to understand the historical importance of the resource (see 14 CCR, Section 4852(d)(2)).

The CRHR protects cultural resources by requiring evaluations of the significance of prehistoric and historic resources. The criteria for the CRHR are nearly identical to those for the NRHP, and properties listed or formally designated as eligible for listing on the NRHP are automatically listed on the CRHR, as are the state landmarks and points of interest. The CRHR also includes properties designated under

local ordinances or identified through local cultural resource surveys. The State Historic Preservation Office maintains the CRHR.

Native American Historic Resource Protection Act

The Native American Historic Resource Protection Act (California Public Resources Code Section 5097, et seq.) addresses the disposition of Native American burials in archaeological sites and protects such remains from disturbance, vandalism, or inadvertent destruction; establishes procedures to be implemented if Native American skeletal remains are discovered during construction of a project; and establishes the NAHC to resolve disputes regarding the disposition of such remains. In addition, the Native American Historic Resource Protection Act makes it a misdemeanor punishable by up to 1 year in jail to deface or destroy a Native American historical or cultural site that is listed or may be eligible for listing in the CRHR.

California Native American Graves Protection and Repatriation Act

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

Senate Bill 18

California Senate Bill 18 (SB 18), which took effect on March 1, 2005, requires local (city and county) governments to consult with California Native American tribes identified by the NAHC for the purpose of protecting, and/or mitigating impacts to cultural places in creating or amending general plans, including specific plans (Government Code Section 65352.3).

Assembly Bill 52

Assembly Bill 52 (AB 52), the Native American Historic Resource Protection Act, sets forth a proactive approach intended to reduce the potential for delay and conflicts between Native American and development interests. Under AB 52, a TCR is defined as a site, feature, place, cultural landscape (must be geographically defined in terms of size and scope), sacred place, or object with cultural value to a California Native American tribe that is either included or eligible for inclusion in the CRHR or included in a local register of historical resources. A Native American tribe or the lead agency, supported by substantial evidence, may choose at its discretion to treat a resource as a TCR. AB 52 also mandates lead agencies to consult with tribes, if requested by the tribe, and sets the principles for conducting and concluding consultation.

California Health and Safety Code, Section 7050.5

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

Local

There are no applicable local regulations related to TCRs specifically. There are local regulations related to historical resources in general, which are included in Section 4.6, Historical Resources.

4.12.3 SIGNIFICANCE DETERMINATION THRESHOLDS

The City of San Diego has not yet developed thresholds of significance for potential impacts to TCRs. Therefore, for purposes of this EIR, thresholds used to evaluate potential impacts related to cultural resources are based on Appendix G of the CEQA Guidelines. The following issue questions are addressed in this section:

1. Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:
    a. Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k).
    b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

4.12.4 IMPACTS ANALYSIS

Issue 1: Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:

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

b. A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1? In applying the criteria set forth in subdivision (c) of Public Resource Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.

Much of the Improvement Zone has been developed for recreational uses and is highly disturbed, as the past dredging and filling activities that created Mission Bay Park changed the cultural landscape of the area. The geotechnical report identifies that a majority of the Improvement Zone, including the various islands, coves, shorelines, creek, and upland habitat areas, is made of artificial fill consisting of dredged, hydraulically placed material (Appendix P).

City-led Tribal consultation will be conducted for the Program in accordance with AB 52. Consultation would be initiated by the City of San Diego with Tribes that have requested notification, and additional notices would be sent concurrently with the release of the Program EIR. Tribal consultation will identify TCRs, if any, and ensure the adequate treatment and mitigation measures for sites with cultural and religious significance to Tribes in accordance with local, state, and federal regulations and guidelines. Information for each element will be updated upon completion of consultation.

A NAHC Sacred Lands File for the Improvement Zone has been requested, and the City has engaged in consultation with one Native American tribe, Jamul Indian Village. Under AB 52. Currently, there are no known religious or sacred uses within the Improvement Zone. The potential exists for these resources to be encountered during future construction activities. Despite state and local protections in place supporting impact avoidance to religious or sacred places, avoiding impacts may not be possible in certain circumstances when resources are discovered during construction. However, the potential to encounter these resources is low based on the lack of resources identified during the site surveys and the high level of disturbance in the Improvement Zone. Information for each element will be updated upon response from the NAHC.

As mentioned in the CRCA, a South Coastal Information Center (SCIC) records search and pedestrian survey were completed for the Program. Pedestrian surveys were completed for the Program by qualified archaeologists, with the first survey being conducted alongside Native American monitors. Results of the records search and survey as related to TCRs within each element are discussed below.

In general, the Program would comply with applicable regulations and the City's Municipal Code, which would provide for the regulation and protection of TCRs and would reduce or minimize potential impacts. If a discovery is made during construction of items of Native American interest, environmental protocol EP-CUL-1 would be implemented, which is consistent with the requirements of the City's "Whitebook" (City of San Diego 2021a). The full text of EP-CUL-1 is provided in the Implementation Framework (Appendix K to this EIR).

Wetland and Water Quality Improvements Element

This element includes the expansion of wetlands and associated habitat in multiple areas on or adjacent to Fiesta Island, a man-made island. This element would also include a stockpile location, specifically for the North Fiesta Island Wetland component. Based on the SCIC records search and pedestrian survey, cultural resources were not identified within the component areas or stockpile locations for the element and no known human remains have been encountered. Further, there is low potential for cultural resources due to the artificial nature of the component areas. Fiesta Island and adjacent areas are man-made and highly disturbed. Additionally, as mentioned, the Program would comply with applicable regulations associated with TCRs in the unlikely event that an inadvertent discovery is made. Therefore, implementation of the proposed Program would result in less than significant impacts on TCRs.

Restoration of Shoreline Element

This element proposes the alteration of multiple shorelines within the Improvement Zone. None of the components within this element intersect any known cultural resources and no cultural resources were identified during the pedestrian survey. No known human remains have been encountered. However, the Crown Point Restoration component is located adjacent to CA-SDI-011571, which includes prehistoric cultural artifacts previously identified on the Crown Point Peninsula. The Crown Point Restoration component limits ground disturbance to the shoreline, like all of the components within the element, and would be physically separated from the previously identified resource by the Crown Point bluffs. The Crown Point Restoration component would not have an impact on CA-SDI-011571. Other components in the Element are located in areas that have are considered degraded due to their artificial nature and modification. Further, there would be low probability of encountering resources along the shoreline for any of the shoreline restoration components due to shoreline

sediments being unstable and unable to support intact resource deposits. Therefore, the components in the Restoration of Shoreline Element would have a **less-than-significant** impact on TCRs.

Upland Habitat and Preserve Expansion Element

This element proposes the expansion and establishment of habitat in multiple areas in the Improvement Zone. Based on the SCIC records search and pedestrian survey, cultural resources were not identified within the component areas for the element and no known human remains have been encountered. Further, most components included in the Upland Habitat and Preserve Expansion Element would occur on Fiesta Island, which is man-made and entirely disturbed given its artificial nature. Other component areas are also considered disturbed due to attempted landscaping and recreational parks on site. Given that these are heavily disturbed areas, there is low potential for cultural resources. The San Diego River Habitat component is located on a largely undeveloped parcel but is located between roadways on artificial fill. Therefore, there is low potential to encounter TCRs for any of the components in this element. Additionally, as mentioned, the Program would comply with applicable regulations associated with TCRs in the unlikely event that an inadvertent discovery is made. Therefore, implementation of the element would result in less-than-significant impacts on TCRs.

Bicycle and Pedestrian Improvements Element

This element would include bicycle and pedestrian improvements to existing trails and sidewalks, and construction of new trails and sidewalks to connect existing paths within the Improvement Zone. The Rose Creek Bike Path component as part of this element would bisect one archaeological resource (CA-SDI-005017). The component area has undergone extensive alteration of the terrain along the east bank of Rose Creek. This has likely displaced any remnants of the resource, had any previously existed. Although intact cultural deposits are unlikely, there is still potential for impact to CA-SDI-005017 to occur during grading and excavation.

Based on the SCIC records search and pedestrian survey, cultural resources were not identified within the element area and no known human remains have been encountered. There would be minimal ground disturbance associated with improvements to existing paths. Where ground disturbance is required to create new trails and sidewalks, areas are highly disturbed and there is a low potential of cultural resources. Further, as mentioned, the Program would comply with applicable regulations associated with TCRs in the unlikely event that an inadvertent discovery is made. Therefore, implementation of the element would result in a potentially significant impact to archaeological resources due to the potential impacts to the known resources described above.

Restoration of Seawall Bulkhead Element

This element would include the replacement in kind of the Mission Beach Seawall, which is a built environment historical resource (P-37-016522). The Mission Beach Seawall is a man-made structure in a highly developed area. While the element includes alteration of a cultural resource, the Mission Beach Seawall is not a TCR, as defined in Public Resources Code Section 21074. The SCIC records search and pedestrian survey, cultural resources were not identified within the element area and no known human remains have been encountered. However, during the City's Native American consultation efforts in compliance with AB 52, Lisa Cumper, Tribal Historic Preservation Officer for Jamul Indian Village, stated concerns that there is an increased potential of encountering unanticipated TCRs during ground disturbing activities associated with the Restoration of Seawall Bulkhead Element. Ms. Cumper stated that a natural source of pitch used by the Kumeyaay to adhere projectile points to shafts is located in the area and projectile points have been linked to the area of the seawall. Ms. Cumper recommended cultural monitoring during ground disturbance associated with construction of the Restoration of Seawall Bulkhead Element. Therefore, implementation of the element would result in potentially significant impacts on TCRs.

4.12.5 MITIGATION FRAMEWORK

The following mitigation measure would address inadvertent discovery of resources during excavation associated with the construction and maintenance of the Rose Creek Bicycle and Pedestrian Improvements Element and the Restoration of Seawall Bulkhead Element.

MM-CUL-4 **Construction Monitoring**. See full text in Section 4.6, Historical Resources

MM-CUL-5 **Cultural Review of Future Development Projects.** See full text in Section 4.6, Historical Resources

4.12.6 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Issue 1: Tribal Cultural Resources

Impact would be **less than significant**, and no mitigation would be required for each Element, except for the Rose Creek Bicycle and Pedestrian Improvements Element and the Restoration of Seawall Bulkhead Element.

Monitoring during initial ground-disturbing activities associated with the construction or maintenance of the Rose Creek Bike Path component and the Restoration of Seawall Bulkhead Element would ensure proper treatment of TCRs should any be identified, although intact cultural deposits are unlikely. With the implementation of monitoring (MM-CUL-4), and future review of development

projects (MM-CUL-5), potential impacts of the Bicycle and Pedestrian Improvements Element and the Restoration of Seawall Bulkhead Element on TCRs would be reduced to **less than significant with mitigation.** Any components of the Program within the vicinity of the sensitive cultural resources would be subject to MM-CUL-4 and MM-CUL-5.

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5 CUMULATIVE

California Environmental Quality Act (CEQA) Guidelines Section 15130(a) requires that an environmental impact report (EIR) discuss cumulative impacts of a project when the project's incremental effect is cumulatively considerable, as defined in Section 15065(a)(3). CEQA Guidelines Section 15355 defines cumulative impacts as "two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts" (14 CCR 15355). Further, cumulatively considerable, as defined in Section 15065(a)(3), means that the incremental effects of the individual project are significant when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects. Where a lead agency determines a project's incremental effects would not be cumulatively considerable, a brief description of the basis for such a conclusion must be included. In addition, the CEQA Guidelines allow for a project's contribution to be rendered less than cumulatively considerable with implementation of appropriate mitigation.

According to CEQA Guidelines, Section 15130(b), "the discussion [of cumulative impacts] need not provide as great detail as is provided for the effects attributable to the project alone" (14 CCR 15130[b]). Section 15130(b) further states that a cumulative impacts discussion "should be guided by standards of practicality and reasonableness" (14 CCR 15130[b]). The evaluation of cumulative impacts is to be based in either "(A) a list of past, present, and probable future projects producing related or cumulative impacts, including, if necessary, those projects outside the control of the agency; or (B) a summary of projections contained in an adopted general plan or related planning document, or in a prior environmental document which has been adopted or certified which described or evaluated regional or area-wide conditions contributing to the cumulative effect."

Pursuant to CEQA Guidelines, Section 15130(d), cumulative impact discussions may rely on previously approved land use documents such as General Plans, Specific Plans, and Local Coastal Plans, and may be incorporated by reference. In addition, no further cumulative impact analysis is required when a project is consistent with such plans and the lead agency determines that the regional or area-wide cumulative impacts of the project have already been adequately addressed in a certified EIR for that plan.

CEQA Guidelines, Section 15130(e), also states, "If a cumulative impact was adequately addressed in a prior EIR for a community plan, zoning action, or general plan, and the project is consistent with that plan or action, then an EIR for such a project should not further analyze that cumulative impact, as provided in Section 15183(j)."

Per CEQA Guidelines, Section 15130(e), the cumulative impacts assessment in this section relies on the cumulative impact determinations in the City of San Diego's (City's) Blueprint SD Initiative, Hillcrest Focused Plan Amendment, and University Community Plan Update Program Environmental Impact Report (PEIR)

(herein referred to as Blueprint General Plan PEIR; City of San Diego 2024h), which guides the City's development and has previously identified cumulative issues. The following issues were identified as cumulatively considerable in the Blueprint General Plan PEIR: aesthetics, air quality, biological resources, cultural resources, noise, public services, recreation, tribal cultural resources, utilities and service systems, and wildfire. Consistent with CEQA Guidelines, Section 15130(e), where the significance of cumulative impacts was previously identified for the Blueprint General Plan PEIR, and the proposed Program is consistent with that plan, those impacts do not need to be analyzed further. The proposed Mission Bay Park Improvements Program (Program) would add incremental effects to one of the cumulative impact areas identified above, and the effects associated with the Program would be cumulatively significant.

5.1 ASSESSMENT OF CUMULATIVE IMPACTS

The geographic scope for the analysis of cumulative impacts depends on the nature of the issue and the project and varies depending on the environmental issue being analyzed. Often, cumulative impacts are not limited by jurisdictional boundaries. The geographic scope for each topic is addressed below under each impact category. The cumulative analysis for the Program includes improvements developed under the Blueprint General Plan PEIR.

The analysis of cumulative impacts is presented in the same order of environmental topics as Chapter 4.0, Environmental Analysis, of this EIR. The Blueprint General Plan EIR assessment of the potential for cumulative impacts is noted in the analysis below, followed by an assessment of whether the Program would contribute considerably to a significant cumulative impact for each environmental topic. A summary of the cumulative analysis for the Program is provided in Table 6-1, Summary of Cumulative Impacts.

Table 5-1
Summary of Cumulative Impacts

Environmental Subject	Impact Category	Cumulative Impact	Cumulatively Considerable
Air Quality	Conflict with Air Quality Plan	LS	No
	Air Quality Standards & Particulate Matter	LSM	No
	Substantial Pollutant Concentrations	LS	No
	Odors	LS	No
	Alteration of Air Movement	LS	No

Table 5-1
Summary of Cumulative Impacts

Environmental Subject	Impact Category	Cumulative Impact	Cumulatively Considerable
Biological Resources	Sensitive Species	LSM	No
	Sensitive Habitats	LSM	No
	Wetlands	LSM	No
	Wildlife Movement	LS	No
	Conservation Planning	LS	No
	Multi-Habitat Planning Area Edge Effects	LS	No
	Local Policies/Ordinances	LSM	No
	Invasive Species	LS	No
Energy	Consumption of Energy Resources	LS	No
	Renewable Energy and Energy Efficiency Plan	LS	No
Geology and Soils	Geologic Hazards such as Earthquakes, Landslides, Mudslides, Ground Failure	LS	No
	Wind or Water Erosion of Soils	LS	No
	Unstable Geologic Unit or Soil	LS	No
Greenhouse Gas Emissions	Greenhouse Gas Emissions	LS	No
	Conflicts with Plans or Policies	LS	No
Historical Resources	Built Environment Historic Resources	LS	No
	Archeological Resources	LSM	No
	Disturbance of Human Remains	LSM	No
Health and Safety	Transport, Use, or Disposal of Hazardous Materials	LS	No

Table 5-1
Summary of Cumulative Impacts

Environmental Subject	Impact Category	Cumulative Impact	Cumulatively Considerable
	Upset and Accident Conditions	LS	No
	Hazards Near a School	LS	No
	Emergency Plan Consistency	LS	No
	Hazardous Materials Site	LSM	No
	Wildland Fire Risk	LS	No
	Aircraft-Related Hazards	LS	No
Hydrology and Water Quality	Groundwater	LS	No
	Drainage	LS	No
	Inundation	LS	No
	Water Quality Standards	LS	No
	Water Quality Control Plan	LS	No
Land Use and Planning	Conflicts with Applicable Plans	LSM	No
	Conversion of Open Space or Farmland	LS	No
	Conflicts with the MSCP Subarea Plan	LS	No
Noise	Ambient Noise	SU	Yes
	Noise Ordinance Compliance	LS	No
	Transportation Noise	LS	No
	Vibration	LS	No
	Aircraft Noise	LS	No
Recreation	Deterioration of Parks and Recreational Facilities	LS	No

Table 5-1
Summary of Cumulative Impacts

Environmental Subject	Impact Category	Cumulative Impact	Cumulatively Considerable
	Construction or Expansion of Recreational Facilities	LSM	No
Tribal Cultural Resources	Tribal Cultural Resources	LSM	No

Notes: LS = Less Than Significant; LSM = Less Than Significant with Mitigation; SU = Significant and Unavoidable

5.1.1 AIR QUALITY

The geographic context for the analysis of cumulative impacts related to air quality is the San Diego Air Basin (SDAB). In analyzing cumulative impacts from a project, the analysis must specifically evaluate a project's contribution to the cumulative increase in pollutants for which the SDAB is designated as nonattainment for the California Ambient Air Quality Standards and National Ambient Air Quality Standards. The SDAB has been designated as a federal nonattainment area for O_3 and a state nonattainment area for O_3, PM_{10}, and $PM_{2.5}$. A project would be considered to have a significant cumulative impact if its contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact).

Conflicts with Air Quality Plan

The Blueprint General Plan PEIR identified a cumulatively considerable impact related to conflicts with regional air quality plans. For the SDAB, the Regional Air Quality Strategy and State Implementation Plan serves as the long-term regional air quality planning documents for the purpose of assessing cumulative operational emissions within the basin to ensure the SDAB continues to make progress toward National Ambient Air Quality Standards and California Ambient Air Quality Standards attainment status. If a project involves development that is greater than that anticipated in the local plan and San Diego Association of Governments' growth projections, the project might be in conflict with the State Implementation Plan and Regional Air Quality Strategy and may contribute to a potentially significant cumulative impact on air quality.

As discussed in Section 4.1, Air Quality, the Program would comply with all existing and new rules and regulations as they are implemented by San Diego Air Pollution Control District, California Air Resources Board, and/or Environmental Protection Agency related to emissions generated during construction and operation. Further, the Program would not result in a growth of population or housing, nor would it

increase employment above existing conditions. Thus, the Program would be within San Diego Association of Governments' growth projections. However, the Program would have the potential to exceed mass daily emission thresholds during concurrent construction of activities assuming the worst-case emissions scenario. With the incorporation of **MM-AQ-1** and **MM- AQ-2**, the Program would not exceed City thresholds or result in an increase in the frequency or severity of existing air quality violations or cause or contribute to new violations.

Future development would also be required to demonstrate consistency with the Regional Air Quality Strategy, State Implementation Plan, and long-term planning goals of the City, which include ongoing reductions in vehicle trips and associated emissions. Therefore, the Program, in combination with other cumulative projects, would not result in a significant cumulative impact related to conflicts with applicable air quality plans. The Program's contribution would not be cumulatively considerable, and the Program would not exceed the cumulative impacts resulting from the Blueprint General Plan.

Air Quality Standards & Particulate Matter

The Blueprint General Plan PEIR identified a cumulatively considerable impact associated with construction and operational emissions. As discussed in Section 4.1, regarding short-term construction impacts, the City's thresholds of significance are used to determine whether the Program may have a short-term cumulative impact. While it is anticipated that during Program implementation construction of individual projects or certain concurrent projects would not exceed mass daily emission thresholds and would result in a less-than-significant impact without mitigation, because this analysis evaluates a worst-case scenario, impacts related to the Program's potential to result in a short-term cumulatively considerable contribution to pollutant emissions during construction would be potentially significant prior to mitigation. However, cumulative impacts would be less than significant with the incorporation of **MM-AQ-1** and **MM-AQ-2** during construction. Cumulative projects would be conditioned to implement mitigation measures identified in the Blueprint General Plan PEIR during construction or operation if necessary. Therefore, the Program would not result in a cumulatively considerable contribution to a significant air quality impact with respect to criteria air quality standards and particulate matter.

Substantial Pollutant Concentrations

The Blueprint General Plan PEIR identified a less-than-significant cumulative impact related to toxic air emissions. As discussed in Section 4.1, the Program would not result in substantial exposure of sensitive receptors to toxic air contaminants in the vicinity during construction or operation. Additionally, during operations, maintenance activities associated with the Program would be minimal and would be similar to those that occur under existing conditions. Therefore, the Program operations would not exceed the City's screening guidance for CO hotspots. Similar to the Program and in compliance with CEQA, other

cumulative projects would be required to comply with applicable regulations pertaining to air quality pollutants. Development of cumulative projects would occur throughout the City and over multiple years. Development projects would be reviewed separately, and in the event that impacts to sensitive receptors are identified for these projects, mitigation measures identified in the Blueprint General Plan PEIR would be incorporated into the Program to reduce impacts. However, a project would only be considered to have a significant cumulative impact if the project's contribution accounts for a significant proportion of the cumulative total emissions (i.e., it represents a "cumulatively considerable contribution" to the cumulative air quality impact). The impact analysis in Chapter 4 indicates that, as mitigated, a significant cumulative impact related to substantial pollutant concentrations would not occur, and therefore the Program's contribution would not be cumulatively considerable.

Odors

The Blueprint General Plan PEIR identified a less-than-significant cumulative impact related to odors. The geographic scope for the analysis of cumulative impacts relative to objectionable odors is the area immediately surrounding the odor source. Objectionable odors are not cumulative in nature because the air emissions that cause the odors to disperse beyond the odor source, making the odor less detectable. As discussed in Section 4.1, potential odors produced during proposed construction would be attributable to concentrations of unburned hydrocarbons from tailpipes of construction equipment, architectural coatings, and asphalt pavement application. Such odors would disperse rapidly from a site and generally occur at magnitudes that would not affect substantial numbers of people. Operation of the Program does not propose any uses associated with odor complaints. Cumulative projects in the City would be required to comply with applicable regulations pertaining to objectionable odors, and mitigation measures would be incorporated into cumulative projects as necessary. Therefore, implementation of the Program, in combination with other cumulative projects, would not result in a cumulatively considerable contribution associated with objectionable odors.

Alteration of Air Movement

The geographic scope for the analysis of cumulative impacts relative to the alteration of air movement is the area immediately surrounding the Program area and the surrounding area within which measurable changes in air circulation patterns could occur. The Blueprint does not identify a cumulative impact related to alteration of air movement. The Program would not significantly affect air movement in the area, as it does not propose any buildings or structures that would contribute to the natural air circulation in the region. Cumulative projects in the City would be required to comply with applicable regulations pertaining to structure height, and mitigation measures would be incorporated into cumulative projects as necessary. Therefore, implementation of the Program, in combination with other cumulative projects, would not result in a cumulatively considerable contribution associated with alteration of air movement.

5.1.2 BIOLOGICAL RESOURCES

The Blueprint General Plan PEIR identified a cumulatively considerable impact related to sensitive species, sensitive habitats, and wetlands, and identified a less-than-significant cumulative impact related to wildlife corridors and conservation planning. The geographic context for the analysis of cumulative impacts to biological resources is the area covered by the City's Multiple Species Conservation Program (MSCP) Subarea Plan (Subarea Plan; City of San Diego 1997).

As analyzed in Section 4.2, the Program would result in potentially significant impacts to biological resources that would be reduced ~~to a less-than-significant level~~ with implementation of **MM-BIO-1** through **MM-BIO-8**. The Program would provide a net benefit to the vegetation communities in the Improvement Zone by conversion of existing disturbed areas or open water to high-functioning native habitats or enhancement of habitat through the removal and control of invasive species. These restoration areas may be credited as mitigation to offset permanent or temporary impacts. Therefore, while components may result in temporary impacts, the resolution of which is uncertain in timing resulting in significant and unavoidable impacts at a Program level, because the Program would minimize impacts to sensitive vegetation communities and demonstrates consistency with Subarea Plan requirements, the Program would not result in a cumulatively considerable impact to sensitive habitats. Additionally, the Program proposes to maintain and enhance existing physical wetland buffers; therefore, providing a net benefit to the functions and values of the aquatic resources in the Mission Bay Park Improvement Zone (Improvement Zone).

All cumulative projects with potential impacts to jurisdictional aquatic resources would be required to comply with applicable federal and/or state regulations, such as Section 404 of the Federal Clean Water Act, Sections 9 and 10 of the Rivers and Harbors Act, Section 1600 of the California Fish and Game Code, and the Porter-Cologne Water Quality Control Act, to ensure no-net loss of resources. Cumulative projects would be required to meet or exceed the City's Subarea Plan regional conservation requirements and project-specific mitigation measures would be implemented to reduce that project's direct impacts to sensitive plant species to below a level of significance.

Per the City of San Diego Biology Guidelines, the MSCP and VPHCP were designed to compensate for the regional loss of biological resources throughout the region (City of San Diego 2018c). Projects that conform with the MSCP as specified by the Subarea Plan, VPHCP, and implementing ordinances, (i.e. Biology Guidelines and ESL Regulations) are not expected to result in a significant cumulative impact for those biological resources adequately covered by the MSCP and VPHCP. Therefore, because the Program would minimize impacts to biological resources adjacent to and within the Multi-Habitat Planning Area and has demonstrated consistency with Subarea Plan requirements, it would not result in a cumulatively considerable impact associated with biological resources.

5.1.3 ENERGY

The Blueprint General Plan PEIR identified a less-than-significant cumulative impact related to energy as future development would be subject to existing building and energy code regulations in place at the time of development.

Consumption of Energy Resources

The geographic scope for the analysis of cumulative impacts related to energy resources includes the region served by local electricity, natural gas, and petroleum fuel providers. As discussed in Section 4.3, Energy, the Program would not result in any new long-term operational activities, and there would be no increase in electricity, natural gas, or petroleum consumption during operations and maintenance compared to existing conditions. Cumulative projects would be required to comply with applicable energy efficiency regulations. Therefore, implementation of the Program, in combination with other cumulative projects, would not result in a cumulatively considerable contribution to the wasteful, inefficient, or unnecessary consumption of energy resources.

Renewable Energy and Energy Efficiency Plan

As discussed in Section 4.3, because the Program proposes park improvements that would not increase energy consumption during operation, the Program would not conflict with or obstruct a state or local plan for renewable energy or energy efficiency. Future development would also be required to demonstrate consistency with existing local plans, including the City of San Diego Climate Action Plan (CAP; City of San Diego 2022b), San Diego Association of Governments Regional Transportation Plan/Sustainable Communities Strategy (SANDAG 2025), and California Air Resources Board Scoping Plan (CARB 2022). Therefore, the Program in combination with other cumulative projects would not result in a significant cumulative impact related to conflicts with a state or local plan for renewable energy or energy efficiency. The Program's contribution would not be cumulatively considerable.

5.1.4 GEOLOGY AND SOILS

The Blueprint General Plan PEIR identified a less-than-significant cumulative impact related to geologic hazards with adherence to the existing local and state regulatory framework as well as implementation of project-level recommendations included in site-specific geotechnical investigations required under the California Building Code and San Diego Municipal Code (SDMC).

Geologic Hazards such as Earthquakes, Landslides, Mudslides, Ground Failure

The geographic scope for the analysis of cumulative impacts related to geologic hazards includes the Improvement Zone and surrounding region that may be affected by regional seismic activity, unstable slopes, or other geologic conditions. As discussed in Section 4.4, Geology and Soils, potential seismic hazards would be reduced through compliance with applicable regulations and industry standards and codes, including the California Building Code and the SDMC. The Program would implement site-specific geotechnical recommendations and engineering design measures to reduce potential risks associated with ground shaking and seismically induced hazards. Additionally, the proposed Program would not result in any changes to the nearby dams or otherwise increase the potential for dam failure to occur. Therefore, the Program's impacts related to seismic hazards would be less than significant. Cumulative projects would be required to comply with applicable regulations and industry standards and codes, including the California Building Code and SDMC, and would be required to implement site-specific mitigation measures, if necessary, to reduce impacts to below a level of significance.

A significant cumulative impact would not occur. Therefore, the Program, in combination with other cumulative projects, would not result in a significant cumulative impact. The Program's contribution would not be cumulatively considerable.

Wind or Water Erosion of Soils

The geographic scope for the analysis of cumulative impacts related to erosion of soils includes the Los Peñasquitos hydraulic unit, into which eroded soils could be transported. As discussed in Section 4.4, most of the Improvement Zone is located on manmade dredged fill where gradients are very low. Compliance with City grading requirements would ensure that future construction operations would avoid significant soil erosion impacts. SDMC Section 142.0146 requires grading work to incorporate erosion and siltation control measures in accordance with Chapter 14, Article 2, Division 4 (Landscape Regulations) and the standards established in the Land Development Manual. The regulations prohibit sediment and pollutants from leaving the work site and require the implementation of erosion, sedimentation, and water pollution control measures. Controls shall include measures outlined in Chapter 14, Article 2, Division 2 (Stormwater Runoff Control and Drainage Regulations) that address the development's potential erosion and sedimentation impacts.

Additionally, during construction activities that involve clearing, grading, or excavation would be subject to the requirements of the National Pollutant Discharge Elimination System (NPDES) Construction General Permit. This requires the implementation of a Stormwater Pollution Prevention Program (SWPPP) and associated best management practices (BMPs), including appropriate measures to address erosion and sedimentation.

Cumulative projects would generally involve grading activities that remove existing pavement and ground cover, thereby exposing soils to potential runoff and erosion during construction if protective measures are not taken. However, future development would be required to comply with applicable regulations and industry standards and codes, including the SDMC (grading requirements), the City's Stormwater Standards Manual, and NPDES Construction General Permit requirements to reduce potential impacts related to erosion and sedimentation hazards such that a significant cumulative impact would not occur. Therefore, the Program, in combination with other cumulative projects, would not result in a significant cumulative impact. The Program's contribution would not be cumulatively considerable.

Unstable Geologic Unit or Soil

The geographic scope for the analysis of cumulative impacts related to unstable geologic units or soils would be the Improvement Zone. As discussed in Section 4.4, the Improvement Zone is relatively flat and the Program does not propose the creation of new steep slopes that could be unstable. Elements implemented within the Improvement Zone would be required to comply with applicable regulations and industry standards and codes, including the SDMC, to reduce potential impacts related to geologic instability to an acceptable level of risk. Potential hazards associated with instability would be addressed by the site-specific recommendations contained within geotechnical investigations as required by the SDMC. Similarly, cumulative projects would be required to comply with the same regulations and industry standards and codes to reduce potential impacts related to geologic instability. A significant cumulative impact would not occur. Therefore, the Program, in combination with other cumulative projects, would not result in a significant cumulative impact. The Program's contribution would not be cumulatively considerable.

5.1.5 GREENHOUSE GAS EMISSIONS

The geographic scope for the analysis of cumulative impacts related to greenhouse gas (GHG) emissions is on a global scale because such emissions contribute to global climate change on a cumulative basis. By nature, GHG evaluations are a cumulative study. Pursuant to CEQA Guidelines, Sections 15064(h)(3), 15130(d), and 15183(b), a project's incremental contribution to a cumulative GHG impact may be determined to not be cumulatively considerable if it complies with the requirements of a qualified plan adopted for the purposes of reducing GHG emissions. The City's CAP provides the adopted strategy for reducing cumulative GHG emissions consistent with state goals. Complimentary plans include the San Diego Association of Governments' 2021 Regional Plan, and CARB's 2022 Scoping Plan. These are the applicable plans for determining whether a cumulative contribution to this existing global cumulative impact would occur.

Greenhouse Gas Emissions

The Blueprint General Plan PEIR identified that there exists a significant cumulative impact related to GHG emissions at the global level. However, the Blueprint General Plan PEIR identified that the Program's contribution to the cumulative impact from GHG emissions would be less than cumulatively considerable. As discussed in Section 4.5, Greenhouse Gas Emissions, the Program's contribution to the cumulative impact from GHG emissions would be less than cumulatively considerable because implementation of the Program would not conflict with each of the CAP's strategies and would not conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing GHG emissions. The Program would be consistent with these plans and regulations and, therefore, would not result in a cumulatively considerable contribution to cumulative GHG emissions.

Conflicts with Plans or Policies

The Blueprint General Plan PEIR identified a less-than-significant cumulative impact related to conflicts with GHG plans and policies. As discussed in Section 4.5, the Program would be consistent with and would not conflict with the appliable strategies of the City's CAP and the City's General Plan. Cumulative projects would also be required to demonstrate consistency with these plans. Because the Program would support implementation of applicable GHG plans and policies, it would not result in a cumulatively considerable contribution to a cumulative conflict with GHG reduction plans.

5.1.6 HISTORICAL RESOURCES

Built Environment Historic Resources

The Blueprint General Plan PEIR identified a cumulatively considerable impact related to historical structures, objects, or sites. The geographic context for the analysis of cumulative impacts relative to built environment historic resources is defined as the County. As described in Section 4.6, Historical Resources, one built environment historical resource (P-37-016522), would be altered by the Restoration of Seawall Bulkhead Element. Under the Proposed Program, the majority of the Mission Beach Seawall would be replaced with modern construction consistent with required safety and ADA accessibility codes and would continue to be used for the same purposes prior to Program implementation. The demolition of the seawall in segments A and B and new construction of segment C and ADA ramps would constitute a substantial adverse change in the significance of a historical resource pursuant to Section 15064.5. The demolition of the resource would result in a loss of all seven aspects of integrity and render the structure unable to convey its significance under NRHP/CRHR Criteria A/1 and C/3 and City of San Diego Criteria A, C, and E. The design for the new seawall would not adhere to the Standards for Rehabilitation because very few original materials, features, finishes, and construction techniques will be preserved or retained, which is required by the Standards for Rehabilitation. Therefore, the Proposed Program would cause a potentially significant

impact to a historical resource. Even with implementation of **MM-CUL-1** through **MM-CUL-3**, the impact would remain **significant and unavoidable**.

Bay wide, the Program would comply with applicable regulations and the City's Municipal Code, including SDMC Section 143.0212, which would provide for the regulation and protection of historical resources and would reduce or minimize potential impacts.

Cumulative impacts to historical resources would involve development projects affecting local resources with the same level or type of designation or evaluation, projects affecting other structures located within the same historic district, or projects that involve resources that are significant within the same context as resources associated with that project and could result in a significant impact. There are no historic districts located within the Improvement Zone; however the Ocean Beach Bike Path improvements would be adjacent to the Ocean Beach Cottage Emerging Historic District. The proposed improvements under the Program are limited to trail and bike improvements along an existing multi-modal path and would not introduce direct effects to any district contributors. Thus, the Program would not result in impacts to a historic district. Future development would be required to comply with SDMC Section 143.0212 and would be reviewed for conformance with the goals and policies relating to the identification and preservation of historical resources in the Historic Preservation Element of the City's General Plan. However, if future projects involve work on the Mission Beach Seawall historic resource they could have the potential to contribute to significant cumulative impacts to historical resources. Therefore, implementation of the Program, in combination with other cumulative projects, could result in a significant cumulative impact associated with historical resources. The Program's contribution would be cumulatively considerable.

Archeological Resources

The Blueprint General Plan PEIR identified a cumulatively considerable impact related to archaeological resources. The geographic context for the analysis of cumulative impacts relative to archaeological resources is considered to be the County. As discussed in Section 4.6, the South Coastal Information Center records search resulted in the identification of two archaeological resources within the program area, CA-SDI-000045 and CA-SDI-005017. The Program would comply with applicable regulations associated with archaeological resources in the unlikely event that an inadvertent discovery is made. While the Program would occur in highly disturbed areas with existing development, implementation of the Program would result in a potentially significant impact to archaeological resources due to the potential impacts to the known resources. Further, during Native American consultation under AB 52, potential tribal cultural resources are located in the area of the seawall. Additionally, there is always potential to encounter an unknown resource during excavation. With the implementation of **MM-CUL-1** which requires construction monitoring for the Rose Creek Bike Path improvements and the Restoration of Seawall Bulkhead Element, along with the

implementation of EP-CUL-1, and consistency with the City's "WHITEBOOK" (City of San Diego 2021a), the potential impacts to archaeological resources or of inadvertent discovery would be reduced to less than significant.

Therefore, implementation of the Program would not result in a significant cumulative impact associated with archaeological resources. The Program's contribution would not be cumulatively considerable.

Disturbance of Human Remains

The Blueprint General Plan PEIR identified a less-than-significant cumulative impact related to human remains. The geographic context for the analysis of cumulative impacts relative to human remains is considered to be the County. There are currently no formal cemeteries or known burials in the immediate vicinity of the Improvement Zone. However, human remains, particularly those interred outside formal cemeteries, could be disturbed during grading, excavation, or other ground-disturbing activities associated implementation of the Program. With the implementation of **EP-CUL-1** the potential impacts of inadvertent discovery would be reduced to less than significant.

Cumulative projects would implement similar mitigation measures to reduce or avoid impacts. The Program's impacts would be reduced to less than significant with mitigation and would not significantly contribute to a cumulative impact. Therefore, the Program's contribution would not be cumulatively considerable.

5.1.7 HEALTH AND SAFETY

Transport, Use, or Disposal of Hazardous Materials

The Blueprint General Plan PEIR identified a less-than-significant cumulative impact related to hazardous materials. The geographical context for the analysis of cumulative impacts related to the transport, use, or disposal of hazardous materials is the Improvement Zone. As described in Section 4.7, Health and Safety, the contractor would be required to ensure that during construction, the transport, handling, use, storage, and disposal of any hazardous materials are in accordance with the manufacturer's specifications and all applicable federal, state, and local laws and regulations. Operation of the Program would not result in a change of land use or existing activities on site and therefore would not increase the use of hazardous materials on the site above existing conditions. Impacts related to the transport, use, or disposal of hazardous materials would be less than significant.

Cumulative projects would similarly be required to comply with all applicable federal, state, and local laws and regulations regarding the transport, handling, use, storage, and disposal of any hazardous

materials. Any potentially significant impacts would be reduced to a less-than-significant level through compliance with applicable regulations.

Therefore, implementation of the Program would not result in a significant cumulative impact associated with the transport, handling, use, storage, and disposal of any hazardous materials. The Program's contribution would not be cumulatively considerable.

Upset and Accident Conditions

The Blueprint General Plan PEIR identified a less-than-significant cumulative impact related to hazardous materials. The geographical context for the analysis of cumulative impacts related to the upset and accident conditions involving the release of hazardous materials is the Improvement Zone. As discussed in Section 4.7, the Program would not result in activities that would generate hazardous materials or emissions or require the handling of hazardous or acutely hazardous materials, substance, or waste. Additionally, construction and operational activities would comply with all applicable federal, state, and local laws and regulations pertaining to the management and use of hazardous materials.

Similarly, cumulative projects would similarly be required to comply with all applicable federal, state, and local laws and regulations pertaining to the management and use of hazardous materials. Any potentially significant impacts would be reduced to a less-than-significant level through compliance with applicable regulations.

Therefore, implementation of the Program would not result in a significant cumulative impact associated with the upset and accident conditions involving the release of hazardous materials. The Program's contribution would not be cumulatively considerable.

Hazards Near a School

The Blueprint General Plan PEIR identified a less-than-significant cumulative impact related to hazards near a school. The geographical context for the analysis of cumulative impacts related to hazards to schools would be projects within 0.25 miles of the existing nearby schools. As discussed in Section 4.7, there are several schools located within a 1-mile radius of the Improvement Zone. However, the Program is not anticipated to result in significant impacts associated with the release of hazardous materials into the environment. Development of the proposed elements in accordance with the proposed Program would be subject to all applicable regulations and industry and code standards and requirements related to health hazards from hazardous materials, and impacts would be less than significant.

Cumulative projects would be required to comply with all applicable regulations and industry and code standards and requirements related to health hazards from hazardous materials, including as they relate to proximity to schools. Any potentially significant impacts would be reduced to a less-than-significant level through compliance with applicable regulations. Similarly, potential hazards associated with hazardous materials emissions are site specific and would not combine with hazards in other areas to create a cumulative impact.

Therefore, implementation of the Program would not result in a significant cumulative impact associated with the handling of or emissions from hazardous materials, substances, or waste within 0.25 mile of an existing or proposed school. The Program's contribution would not be cumulatively considerable.

Emergency Plan Consistency

The Blueprint General Plan PEIR identified a less-than-significant cumulative impact related to impairing implementation of, or physically interfering with an adopted emergency response plan or emergency evacuation plan. The geographic context for the analysis of cumulative impacts relative to emergency plan consistency is the City. As discussed in Section 4.7, Health and Safety, the Program's design would be consistent with the City's Municipal Code standards for emergency vehicle access, and no components would impair the implementation of or compliance with an adopted evacuation plan.

Cumulative projects would have the potential to impair existing emergency response and evacuation plans if they would block evacuation or access roads or if road improvements would result in the closure of roads. Construction and operation associated with future development in the City could result in activities that could interfere with adopted emergency response or evacuation plans, such as temporary construction barricades or other obstructions that could impede emergency access. Cumulative projects would be required to comply with the requirements of the County's Emergency Response Plan. Compliance with applicable regulations would ensure that cumulative projects would not result in a significant impact associated with the impairment of an emergency response and evacuation plan. Therefore, implementation of the Program would not result in a significant cumulative impact associated with emergency response and evacuation plans. The Program's contribution would not be cumulatively considerable.

Hazardous Materials Site

The Blueprint General Plan PEIR identified a less-than-significant cumulative impact related to hazardous sites. The geographic context for the analysis of cumulative impacts relative to hazardous materials sites is site specific. As discussed in Section 4.7, activities resulting in excavation or disturbance within the Tecolote Creek area could potentially disturb and require disposal of contaminants/ hazardous materials associated with a prior use in that location. Construction activities would comply with the standards and requirements of the City's "WHITEBOOK," which would include specific contract

bid items at the time of individual improvement implementation, such as the preparation and adherence to a Community Health and Safety Plan and a Hazardous Substances Management Plan, which provides protocols for the safe handling and disposal of contaminated media.

Similarly, all other cumulative projects would have to comply with regulations directing clean up and rehabilitation of hazardous materials sites to obtain project approvals. Due to the nature of impacts associated with specific hazardous materials sites, and the required compliance with establish regulations and the City's "Whitebook," a significant cumulative impact would not occur. Therefore, the Program's impact would not be cumulatively considerable.

Wildland Fire Risk

The Blueprint General Plan PEIR identified a cumulatively considerable impact related to the exposure of people and structures to wildfire and exposure to pollutant concentrations resulting from wildfire. The geographic context for cumulative impacts related to wildland fire risk is the City. As discussed in Section 4.7, while portions of the Improvement Zone contain some areas classified as Very High Fire Hazard Severity Zones, the Improvement Zone is also located adjacent to marine waters of Mission Bay. These land use types do not contain wildland fuel sources likely to burn in the event of a wildfire, which significantly reduces the likelihood of wildfires impacting the Improvement Zone. The proposed Program elements would comply with local fire emergency protocols and local emergency evacuation and disaster plans in the event of a wildfire or emergency.

Cumulative projects would also be required to comply with local fire emergency protocols and local emergency evacuation and disaster plans. Therefore, a significant cumulative impact would not occur, and the Program's contribution would not be cumulatively considerable.

Aircraft-Related Hazards

The geographic context for the analysis of cumulative impacts related to aircraft hazards would be those projects in the Airport Influence Area for San Diego International Airport. Projects within an Airport Influence Area that include land uses potentially impacted by airports may be subject to consistency review with the Airport Land Use Compatibility Plan and reviewed by relevant local government agencies, such as the City. Potential risks associated with development in the Airport Influence Areas would be a factor in any decision to approve or deny future development proposals. As discussed in Section 4.7, the Program would not be located within the Safety Zones associated with the San Diego International Airport, and would not introduce any hazards to air navigation, including glare or electromagnetic interference, and no new land uses are proposed; as such, the Program is not anticipated to result in a safety hazard for people residing or working in a designated Airport Influence Area. As a result, cumulative risks to future development associated with proximity to the San Diego International Airport would not result in a significant impact.

Therefore, the Program would not result in a significant cumulative impact, and the Program's contribution would not be cumulatively considerable.

5.1.8 HYDROLOGY AND WATER QUALITY

The Blueprint General Plan PEIR identified a less-than-significant cumulative impact related to hydrology and water quality through compliance with existing regulatory framework.

Groundwater

The geographic context for the analysis of cumulative impacts to groundwater is the Mission Valley Groundwater Basin (Basin No. 9-014), the nearest identified groundwater basin to the Program elements. A significant cumulative impact related to groundwater supplies and recharge would occur if development in the groundwater basin would result in a substantial decrease in groundwater supplies or interfere substantially with groundwater recharge such that the cumulative development would impede sustainable groundwater management of the basin a. However, as discussed in Section 4.8, the Program would not use groundwater and does not include groundwater extraction nor are any of the Program elements located within the groundwater basin. The Program would ultimately improve hydrology and water quality within the Improvement Zone. It includes elements that would improve infiltration and groundwater recharge.

In relation to the City's thresholds, a cumulative impact could occur if the cumulative projects would result in the creation of ponded water, including sewage disposal, or if utilization of groundwater resources would impact wetland or surface flow. As noted above, the Program would improve water circulation, hydrologic flow, and water quality. Furthermore, the Program does not include any sewage disposal or groundwater extraction. Therefore, the Program's contribution would not be cumulatively considerable.

Drainage

The geographic context for the analysis of cumulative impacts to flooding and drainage alteration is the Los Peñasquitos hydrologic unit. As discussed in Section 4.8, the Program elements are designed to improve drainage and overall water quality within the Improvement Zone. However, construction of all the Program elements would require heavy equipment and use of construction-related materials that could accidentally be spilled and could potentially pollute adjacent waters in Mission Bay. Potential pollutants and erosion generated during construction would be temporary and addressed through project-specific SWPPP, in accordance with the City's Stormwater Standards Manual and the City's Grading Ordinance. Environmental Protocol EP-WQ-1 would be implemented as part of each improvement, which outlines when a SWPPP would be required. Prior to construction, a Stormwater Applicability Checklist (DS-560) would be completed by the Project Engineer, to determine stormwater standard and requirements specifically applicable to each improvement. For improvements that

include permanent stormwater infrastructure or BMPs, a Storm Water Quality Management Plan may be required, and the DS-564 form shall be completed by the Project Engineer. Construction and permanent BMPs shall be in conformance with San Diego Regional Water Quality Control Board standards and pursuant to Section 1001 of the "WHITEBOOK." After construction, the Program would decrease erosion potential and improve overall filtration and water quality treatment of stormwater in Mission Bay, reducing impacts of existing pollutants.

Cumulative impacts would generally result from an increase in impervious surfaces, which has the potential to result in an increase in stormwater flows. Cumulative projects exceeding 1 acre (or meeting other applicable criteria) are subject to pertinent requirements under the NPDES Construction General Permit. Specific conformance requirements include implementing a SWPPP, an associated Construction Site Monitoring Program, employee training, and minimum BMPs. Future development would be subject to federal, state, and local regulations, such as the NPDES permit, that are designed to reduce stormwater runoff from project sites by promoting infiltration, minimizing impervious surfaces, and requiring a no-net increase in flows over the existing condition through hydromodification processes. Further, projects would adhere to the requirements of the City's Drainage Design Manual and Storm Water Standards Manual, which require installation of low-impact-development practices. Any short-term impacts resulting from alterations of drainage and hydrology would be minimized with the incorporation of appropriate construction BMPs and operational compliance with the NPDES permit and City's Stormwater Standards Manual. A significant cumulative impact would not occur. Therefore, the Program would not result in a significant cumulative impact. The Program's contribution would not be cumulatively considerable.

Inundation

The geographic context for the analysis of cumulative impacts with regard to inundation is Mission Bay Park and adjacent coastal areas that are located within designated flood hazard zones, or tsunami inundation zones. As described in Section 4.8, compliance with State regulations would ensure risk associated with flooding due to dam failure is considered minimal, and therefore, impacts associated with risk of pollutant release in the event of dam failure would be less than significant. Similarly, cumulative projects would similarly be required to comply with applicable flood regulations would minimize risks of flood hazards and corresponding risk of release of pollutants due to inundation. A significant cumulative impact would not occur. Therefore, the Program would not result in a significant cumulative impact. The Program's contribution would not be cumulatively considerable.

Water Quality Standards

The geographic context for the analysis of cumulative impacts with regard to water quality is the Los Peñasquitos hydrologic unit. As discussed in Section 4.8, the Program would have the potential to

result in new pollutant discharge to the already impaired waterbodies within the Improvement Zone. Adherence to applicable requirements and implementation of BMPs would minimize pollutant discharge associated with construction activities. Regulatory requirements associated with stormwater, such the NPDES permit and Municipal Separate Storm Sewer System (MS4) permit would be applicable. SWPPPs would be developed for each element as necessary. The Program would comply with the applicable stormwater requirements, including those identified in the City's Stormwater Standards Manual and SDMC, and there would be no violation with waste discharge requirements and water quality standards. Upon completion of construction, the Program elements would improve water quality overall.

Cumulative impacts would generally result from an increase in impermeable surfaces and an increase in runoff of stormwater pollutants contributing to a cumulative increase in impacts to water quality. Similar to the Program, future development would be subject to federal, state, and local applicable regulations and the City's Stormwater Standards Manual, which requires the preparation of a Stormwater Quality Management Plan for Priority Development Projects. Cumulative projects would be designed to reduce the discharge of stormwater pollutants and improve water quality. Cumulative project compliance with applicable laws and regulations and incorporation of required construction and operational BMPs would ensure that a significant cumulative impact would not occur.

Therefore, with implementation of a Stormwater Quality Management Plan and implementation of BMPs, the Program, in combination with other cumulative projects, would not result in a significant cumulative water quality impact. The Program's contribution would not be cumulatively considerable.

Water Quality Control Plan

The geographic context for the analysis of cumulative impacts related to conflicts with a water quality control plan is the San Diego Basin, covered by the San Diego Basin Water Quality Control Plan. As discussed in Section 4.8, the Program would comply with the Water Quality Control Plan for the San Diego Basin, which include the groundwater management plan and BMPs to be implemented as applicable. Cumulative projects would also be required to demonstrate consistency with San Diego Basin Water Quality Control Plan. Therefore, the Program, in combination with other cumulative projects, would not result in a significant cumulative impact related to conflicts with an applicable water quality control plan. The Program's contribution would not be cumulatively considerable.

5.1.9 LAND USE AND PLANNING

The Blueprint General Plan PEIR identified a less-than-significant cumulative impact related to land use compatibility.

Conflicts with Applicable Plans

The geographic context for the analysis of cumulative impacts related to conflicts with applicable plans is Mission Bay Park, covered by the Mission Bay Park Master Plan (City of San Diego 2024a); the Pacific Beach Community Planning Area, covered by the Pacific Beach Community Plan (CP) and Local Coastal Program Land Use Plan (City of San Diego 2019b); the Ocean Beach Community Planning Area, covered by the Ocean Beach CP and Local Coastal Program (City of San Diego 2015); and Mission Beach Community Planning Area, covered by the Mission Beach Precise Plan and Local Coastal Program Addendum (City of San Diego 2017).

As discussed in Section 4.9, Land Use and Planning, the Program seeks to implement the recommendations of the Mission Bay Park Master Plan and is consistent with the current General Plan land use designations and intended uses. As described in Section 4.9, the Program would be consistent with the City's General Plan (City of San Diego 2024b), the 2021 Regional Plan (SANDAG 2021a), CAP (City of San Diego 2022b), Climate Resilient SD (City of San Diego 2024g), the California Coastal Act, Mission Bay Park Master Plan (City of San Diego 2024a), Mission Bay Natural Resource Management Plan (City of San Diego 1990), Pacific Beach CP and Local Coastal Program Land Use Plan (City of San Diego 2019b), Mission Beach Precise Plan and Local Coastal Program Addendum (City of San Diego 2017), and Ocean Beach CP and Local Coastal Program (City of San Diego 2015).

The Program would be inconsistent with Land Development Code's Historical Resources Regulations due to the potential impacts to the known historic resources and archaeological resources. Impacts to historic resources would occur due to the proposed improvements to the Mission Beach Seawall, which is identified as a historic resource under CEQA. Because the improvements would not meet all the Secretary of Interior's Standards for Restoration, the improvements would not be consistent with the Land Development Code's Historic Resources Regulations. While the City Land Development Code provides processes for addressing when impacts to historic resources cannot be avoided, efforts to reduce impact and to comply with the Historic Resources Regulations have been made to the maximum extent feasible.

Since cumulative projects and the Program would be required to comply with the applicable regulations and requirements within these planning documents, compatibility of land uses would be ensured. Additionally, project-specific mitigation measures would be implemented to reduce the Program's impacts on archaeological resources to below a level of significance. Similarly, cumulative projects would be required to comply with the applicable mitigation measures for the reduction or avoidance of impacts to archaeological resources. Therefore, the Program's contribution would not be cumulatively considerable.

Conversion of Open Space or Farmland

The entire Improvement Zone is classified by the California Department of Conservation Farmland Mapping and Monitoring Program map as Urban and Built-Up Land and Other Land. In the City's General Plan, the bicycle and pedestrian improvements, shoreline restoration improvements, upland habitat expansion improvements, and wetland and water quality improvements are designated as Park, Open Space, & Recreation. The seawall restoration improvements at Mission Beach are designated as Residential and Commercial Employment, Retail, & Services in the City's General Plan (City of San Diego 2024b). The Program would not result in the conversion of open space or farmland to more intensive land use. Therefore, the Program would not result in a cumulative land use impact. The Program's contribution would not be cumulatively considerable.

Conflicts with the MSCP Subarea Plan

As discussed in Section 4.9, the Program contains elements located within or adjacent to the Multi-Habitat Planning Area as delineated within the Subarea Plan (City of San Diego 1997). The Program has been designed to comply with the Subarea Plan's general management directives and specific management policies and directives for the Urban Area and Appendix A of the Subarea Plan. Therefore, the Program's consistency with the Subarea Plan ensures the Program, in combination with other cumulative projects in the City, would not result in a cumulatively considerable impact associated with a conflict with the Subarea Plan.

5.1.10 NOISE

The Blueprint General Plan PEIR identified a cumulatively considerable impact related to ambient noise levels and groundborne vibration. The geographic context for the analysis of cumulative impacts regarding ambient noise includes only those projects within proximity to the Improvement Zone. As discussed in Section 4.10, the Program's impacts related to operation, noise ordinance compliance, transportation noise, vibration, and aircraft noise would be less than significant. However, construction noise associated with implementation of the Program during allowable daytime hours (between 7:00 a.m. and 7:00 p.m.) would exceed the 75 A-weighted decibels (dBA) equivalent continuous sound level (L_{eq}) 12-hour City guidance at the nearest noise-sensitive receptor, resulting in a potentially significant impact during construction. **MM-NOI-1** requires implementation of construction noise reduction levels to achieve compliance with the 12-hour average noise level limit of 75 dBA L_{eq} established in the SDMC, Section 59.5.0404. Each of the mitigation measures is specific for the Program component requiring mitigation and includes administrative controls, engineering controls, and installation of noise abatement. However, even with implementation of mitigation, short-term construction noise would still exceed the 75 dBA L_{eq}

12-hour City guidance at the nearest noise-sensitive receptor for implementation of some of the Program elements.

Operation of construction equipment required for development of cumulative projects would have the potential to generate noise levels that may exceed the 12-hour average noise level limit of 75 dBA L_{eq} established in the SDMC, Section 59.5.0404. However, construction activities of cumulative projects would not occur at the same time or in the same location and would generally not combine to result in cumulative noise exposure. Although cumulative projects would implement mitigation measures as required by the Blueprint General Plan PEIR to reduce noise-related impacts, the feasibility and efficacy of these measures to adequately reduce noise impacts cannot be ensured.

Therefore, the Program's contribution to ambient noise exceeding the 75 dBA L_{eq} 12-hour City guidance would be cumulatively considerable, and impacts would be significant and unavoidable.

5.1.11 RECREATION

Deterioration of Parks and Recreational Facilities

The Blueprint General Plan PEIR identified a cumulatively considerable impact associated with the increased use of existing neighborhood and regional parks or other recreational facilities. The geographic scope for the analysis of cumulative impacts related to recreational facilities includes Mission Bay Park and the City. As described in Section 4.11, Recreation, the Program would not significantly increase the use of existing neighborhood or regional parks or other recreational facilities such that physical deterioration of those facilities would occur or be accelerated. Other cumulative projects in the area would be required to assess and mitigate their impacts on park facilities consistent with applicable City of San Diego policies and regulations. Therefore, implementation of the Program, in combination with other cumulative projects, would not result in a cumulatively considerable contribution to the physical deterioration of parks or recreational facilities.

Construction or Expansion of Recreational Facilities

The Blueprint General Plan PEIR identified a cumulatively considerable impact associated with the construction and operation of future parks and recreational facilities. The geographic scope for the analysis of cumulative impacts related to recreational facilities includes Mission Bay Park and the City. As described in Section 4.7, implementation of the Program would result in impacts related to construction though not expansion, of recreational facilities, including active recreational facilities such as trails, bridges, and bike paths, and passive recreation such as wetlands and uplands habitats. The various impacts from such are the subject of analysis throughout the air quality (Section 4.1), biological resources (Section 4.2), tribal cultural resources (Section 4.12), historical resources (Section 4.6) and noise (Section 4.10) sections in this EIR. The remaining sections in this EIR do not find that the

Program would have significant impacts on the environment. However, with the implementation of mitigation measures, these impacts would be reduced to less than significant.

Other cumulative projects would be required to evaluate and mitigate any potential environmental impacts associated with construction or expansion of recreational facilities. Because the Program's impacts would be significant, the Program's contribution would be cumulatively considerable. Therefore, implementation of the Program, in combination with other cumulative projects, would result in a cumulatively considerable contribution to impacts associated with the construction or expansion of recreational facilities.

5.1.12 TRIBAL CULTURAL RESOURCES

The Blueprint General Plan PEIR identified a cumulatively considerable impact related to tribal cultural resources. The geographic context for the analysis of cumulative impacts to tribal cultural resources (TCRs) is considered to be the County. As discussed in Section 4.12, Tribal Cultural Resources, TCRs have been identified in the area of the Restoration of Seawall Bulkhead Element. Therefore, impacts would be potentially significant. However, with implementation of **MM-CUL-1**, construction monitoring during the Restoration of Seawall Bulkhead Element, the potential impacts to these resources would be reduced to less than significant.

Cumulative projects have the potential to result in a cumulative impact associated with the loss of TCRs through development activities that could cause a substantial adverse change in the significance of a TCR. These sites may contain artifacts and resources associated with tribal cultural values and religious beliefs. Any cumulative projects that involve ground-disturbing activities have the potential to result in significant impacts on TCRs. In the event TCRs are discovered, each individual project would be required to comply with the applicable regulatory requirements and the consultation requirements of SB 18 and AB 52, as applicable, to determine and mitigate any potential impacts to TCRs. Cumulative projects would implement mitigation measures required by the Blueprint General Plan PEIR to reduce impacts, as well as the requirements of the City's "WHITEBOOK," when an inadvertent discovery is made of a potential TCR, archaeological resource, or historic resource during construction. Therefore, the impacts to TCRs from planned construction and development cumulative projects in the San Diego region would result in a less-than-significant cumulative impact.

Any cumulative projects that involve ground-disturbing activities would be required to implement measures similar to **MM-CUL-4** and **MM-CUL-5** to reduce impacts to TCRs. Implementation of **MM-CUL-4, MM-CUL-5** and **EP-CUL-1** would reduce the Program's potential impacts of inadvertent discovery; therefore, the Program's contribution would not be cumulatively considerable. Therefore, implementation of the Program would not result in a cumulatively considerable contribution to impacts associated with TCRs.

6 ALTERNATIVES

6.1 INTRODUCTION

The California Environmental Quality Act (CEQA) Guidelines, Section 15126.6, requires that an environmental impact report (EIR) "describe a range of reasonable alternatives to the project, or to the location of the project, which would feasibly attain most of the basic objectives of the project but would avoid or substantially lessen any of the significant effects of the project, and evaluate the comparative merits of the alternatives" (14 CCR 15126.6[a]). The alternatives selected for detailed review in the EIR may be limited to those that "would avoid or substantially lessen any of the significant effects of the project" and would "feasibly attain most of the basic objectives of the project." CEQA Guidelines, Section 15126.6(a), also provides that an EIR need not consider every conceivable alternative to a project. Instead, the EIR must consider a reasonable range of potentially feasible alternatives that will foster informed decision-making and public participation. In addition, an EIR need not consider alternatives that are infeasible. This chapter identifies potential alternatives to the proposed Program and evaluates them, as required by CEQA.

Because an EIR must identify ways to mitigate or avoid the significant effects that a project may have on the environment (California Public Resources Code Section 21002.1), the purpose of the alternatives discussion is to focus on alternatives to a project or its location that would avoid or substantially lessen any significant effects of that project, even if the alternatives would impede to some degree the attainment of a project's objectives or be more costly. Further, CEQA requires that an EIR identify the environmentally superior alternative from among the alternatives.

6.2 CRITERIA FOR SELECTION AND ANALYSIS OF ALTERNATIVES

The criteria for the selection and analysis of alternatives are provided in CEQA Guidelines, Section 15126.6(c). The alternatives must (1) meet most of the project objectives, (2) be feasible, and (3) avoid or substantially lessen the significant impacts resulting from the project.

Project Objectives

The alternatives addressed in this Program EIR were selected based on the extent to which they would feasibly accomplish most or all of the project objectives described in Chapter 3.0, Project Description, of this Program EIR, which are restated below:

1. Improve Mission Bay Park through wetland expansion, water quality improvements, and the protection and expansion of eelgrass beds as identified in the Mission Bay Park Master Plan.

2. Identify inadequate and failing shorelines within Mission Bay Park, and prioritize shoreline restoration treatments, including restoration of beach sand and stabilization of erosion control features.
3. Expand endangered or threatened species preserves and upland habitats in areas identified in the Mission Bay Park Master Plan, including on North Fiesta Island, along the levee of the San Diego River floodway, and other opportunity areas.
4. Implement deferred maintenance projects, including but not limited to, maintenance and regular replacement of recreational and public safety facilities, to the benefit of park users.
5. Assess deficiencies and gaps in the existing bicycle and pedestrian circulation network to improve overall circulation, safety, and enjoyment of bicyclists and pedestrians in Mission Bay Park.
6. Restore the seawall bulkhead on Oceanfront Walk to a condition no less than the quality of restoration previously performed in 1998 from Thomas Street to Pacific Beach Drive or to conditions as may be required by historic standards.

Feasibility

CEQA Guidelines, Section 15126.6(f)(1), identifies the factors to be taken into account to determine the feasibility of alternatives. The factors are site suitability, economic viability, availability of infrastructure, General Plan consistency, other plans or regulatory limitations, jurisdictional boundaries, and whether the project proponent can reasonably acquire, control, or otherwise have access to the alternative site. None of these factors establishes a fixed limit on the scope of reasonable alternatives. An alternative does not need to be considered if its environmental effects cannot be reasonably ascertained, and if implementation of such an alternative is remote or speculative.

Significant Impacts

According to CEQA Guidelines, Section 15126.6(b), the alternatives discussion should focus on those alternatives that, if implemented, could eliminate or reduce any of the significant environmental impacts of a project. The alternatives are evaluated to determine if they would eliminate any significant adverse environmental impacts or reduce those impacts to a level below significant. Project-related and cumulative impacts are those identified prior to the incorporation or implementation of any mitigation measures. As described in Chapter 4, Environmental Impact Analysis, the proposed Program would result in potentially significant impacts, prior to mitigation, for the following issue topics: air quality, biological resources, health and safety, historical resources, archaeological resources, Tribal Cultural Resources (TCRs), and noise. The Program would result in potentially significant cumulative impacts, prior to mitigation, for the following issue topics: air quality, biological resources, health and safety, historical, archaeological resources, TCRs, and noise.

The performance of an alternative relative to a project is evaluated to determine the "comparative merits of the alternative" (CEQA Guidelines, Section 15126.6[a]). The alternatives analysis is based on a comparison to the proposed Program's impacts.

6.3 ALTERNATIVES CONSIDERED BUT REJECTED

6.3.1 SEA LEVEL RISE ACCOMMODATING SEAWALL REPLACEMENT

This alternative was developed during the design phase for the Restoration of the Seawall Preliminary Engineering Report. Based on sea level rise (SLR) modeling, with a SLR of 1.6 feet, the height of the existing seawall would require an increase of 3.5 feet to reduce water overtopping from high tides, storm surges and other storm flood-related events. This option was originally considered for the replacement of the parapet wall; however, because the total wall height would be 6 feet high, which would drastically reduce the line sight to the ocean and block views for businesses, residents, guests, and users of the boardwalk, this option was ultimately discarded. A second option was considered to reduce effects on sightlines to the beach and ocean, but to still respond to SLR conditions. As such, a proposed design was considered that would add 2 feet to the parapet wall for a 4-foot-tall wall and would raise the walkway 2 feet. Because of these increases in height, the weight and loading on the wall and supporting elements increase. Therefore, a new and deeper concrete beam and backwall would be required.

The substructure elements (sheet pile wall and pile) would still be adequate with the increase in load, so these elements would not be replaced. The parapet wall and most of the pile cap would be demolished, along with the walkway and infill below, and a portion of the backwall. The new seawall system and walkway would be placed and connected to the existing pile cap, tie-back beam, and backwall through vertical reinforcing bars. The wall would be formed to an extent to meet the architectural features required for historical preservation.

This option was ultimately rejected from further analysis due to the challenges this design would present, including reduced sightlines and inconsistency across sections of the Seawall. Although this design would provide the resiliency to adapt to SLR from the oceanfront, this design would not provide resiliency to SLR entirely because the Mission Beach peninsula would still be at risk of inundation of water from the Bay due to high tides, storm surges, and other storm flood-related events. Further, the increased wall height would create a non-uniform look with the rest of the Mission Beach Boardwalk and Seawall, a potentially eligible historic resource. The raised walkway and wall height would pose challenges with sightlines from the public utilizing the boardwalk and adjacent businesses. Construction is assumed to be over a 25-month period for this option and would require the closure of entire sections of the walkway to replace it. The increased wall height compared to the existing seawall and compared to the proposed Program would cause significant challenges for visibility and sightlines. Additionally,

this alternative would not reduce any potentially significant environmental impacts that have been identified in this Program EIR.

6.3.2 SEAWALL RESTORATION TO SECRETARY OF THE INTERIOR'S STANDARDS DESCRIPTION

This alternative was contemplated as part of initial Program design. This alternative would entail designing and implementing the Mission Beach Seawall bulkhead improvements in conformance with the Secretary of the Interior's Standards for Rehabilitation (Standards for Rehabilitation; codified in 36 CFR Part 67) and the City's Historical Resources Regulations (codified in San Diego Municipal Code Chapter 14, Article 3, Division 2). The Mission Beach Seawall, specifically the 2.4-mile-long seawall from Thomas Avenue to the north and the South Mission Beach jetty to the south, is eligible for listing as a historical resource under National Register of Historic Places (NRHP)/California Register of Historical Resources (CRHR) Criteria A/1 and C/3 and by the City of San Diego Historical Resources Board for meeting designation Criteria A, C, and E (see Section 4.6, Historical Resources, for further discussion of the historical resource eligibility) and is considered a historical resource for the purposes of CEQA. The proposed improvements under this alternative would include the replacement of Segment A and Segment B, and the construction of Segment C, and would adhere to the Standards of Rehabilitation such that the seven aspects of integrity would be maintained and the structure would maintain significance under NRHP/CRHR Criteria A/1 and C/3 and City of San Diego Criteria A, C, and E. Original materials, features, finishes, and construction techniques will be preserved or retained, which is required by the Standards for Rehabilitation.

This alternative would limit the functionality of the seawall in the future for purposes of protection from storm surges, and of SLR resiliency, and because conformance with the Standards for Rehabilitation would not allow for the use of modern materials, the increase of height of the seawall, or the demolition of entire sections of the seawall that need to be replaced. This alternative would not support the City's goal to improve the resilience of San Diego coastal communities to SLR, as outlined in the Draft Coastal Resilience Master Plan, an implementation action of Climate Resilient SD. The proposed design for this alternative would implement a seawall that would not achieve the main goals of a functional seawall and would not provide adequate protection for the beach communities of Mission Beach and Pacific Beach, nor would it provide adequate resilience against future SLR.

This alternative was ultimately rejected for consideration because the requirements of the Standards for Rehabilitation would limit the functionality of the seawall so much that it would not meet the needs of the City or its communities. This alternative would reduce the significant and unavoidable impact to a historic resource that would result from the Proposed Program to a less than significant impact. However, because this alternative would not meet the fundamental needs the City has for a seawall to provide protection and resilience, this alternative was ultimately rejected from consideration.

6.4 PROJECT ALTERNATIVES

6.4.1 NO PROJECT/NO BUILD ALTERNATIVE

Under the No Project/No Build Alternative, the Mission Bay Park Improvements Program (Program) would not be approved by the City Council, and none of the elements or components would be constructed. Standard operation and maintenance activities would occur at many of the improvement locations; however, this would be consistent with the activities that currently occur and would not represent a change from existing conditions. Certain activities, such as bike path improvements (i.e. repaving, striping, or widening), may occur under the City's ongoing maintenance programs or under the capital improvement project program.

6.4.2 ANALYSIS OF NO PROJECT/NO BUILD ALTERNATIVE

Air Quality

This alternative would not result in any development that would induce population or employment growth, similar to the Program. This alternative would result in no construction-related air emissions because the current conditions would remain in place, and no demolition or construction activities would occur. As such, the No Project/No Build Alternative would not result in conflict with the applicable plans for the San Diego Air Basin (the Regional Air Quality Strategy and State Implementation Plan). This alternative would result in a reduced impact related to emissions of criteria pollutants compared to the proposed Program prior to the implementation of mitigation measures. Also similar to the proposed Program, this alternative would result in a less than significant impact related to odors and because it would not introduce any land uses typically associated with nuisance odors. Therefore, overall, the No Project/No Build Alternative would have a reduced impact to air quality compared to the proposed Program.

Biological Resources

Compared to the proposed Program, this alternative would not result in any temporary or permanent impacts to biological resources. This alternative would not result in impacts to sensitive plant or wildlife species, sensitive habitats, jurisdictional aquatic resources, or wildlife corridors. The No Project/ No Build Alternative would result in a conflict with the Mission Bay Park Master Plan, which was amended in 2019 to identify the western portion of North Fiesta Island as a Least Tern Preserve area. If the No Project/No Build Alternative is implemented, the western area of North Fiesta Island would remain in its current state and be in conflict with the uses identified in the Mission Bay Park Master Plan.

This alternative would not expand existing upland habitat or wetland habitat areas compared to the proposed Program. As stated above, the No Project/No Build Alternative would not result in any development that would have direct or indirect impacts to sensitive habitats or species; thus, this alternative would comply with the City's MSCP Subarea Plan. Therefore, this alternative would result in reduced biological resources impacts compared to the proposed Program, prior to mitigation measures. However, implementation of the Program would ultimately expand several habitat areas, resulting in long-term benefits to wetland and upland habitats, sensitive species, and the bay ecosystem as a whole, which would not occur under the No Project/No Build Alternative.

Energy

The No Project/No Build Alternative would not result in any construction activities; therefore, it would not result in the consumption of any energy resources. Maintenance activities would continue in the Mission Bay Park Improvement Zone (Improvement Zone) consistent with existing conditions. Therefore, this alternative would not result in wasteful, inefficient, or unnecessary consumption of energy resources; nor conflict with the City of San Diego Climate Action Plan (CAP; City of San Diego 2022b), San Diego Association of Governments Regional Transportation Plan/Sustainable Communities Strategy (SANDAG 2025), and CARB Scoping Plan (CARB 2022), similar to the proposed Program. However, this alternative would result in the consumption of less energy resources.

Geology and Soils

The No Project/No Build Alternative would not result in any ground-disturbing construction activities and therefore would not result in any impacts related to geologic hazards, soil erosion or siltation, or unstable geological conditions. While the Program would result in less than significant impacts to geology and soils, this alternative would result in reduced impacts to geology and soils compared to the proposed Program because it would not implement any ground disturbance or construction activities.

Greenhouse Gas Emissions

Compared to the proposed Program, the No Project/No Build Alternative would result in less construction-related emissions because no new infrastructure would be constructed, and no enhancement or restoration activities would occur.

Health and Safety

The No Project/No Build Alternative would not include construction activities, as no development would occur, so it would require the use, transport, or storage of hazardous materials or acutely hazardous materials, substances, or waste. Further, there would be no use or emission of hazardous materials near

an existing or planned school, nor would this alternative have the potential to disturb a site listed on a hazardous materials site compiled pursuant to Government Code Section 65962.5. Because this alternative would not involve any construction or operational activities, it would not conflict with an applicable emergency response plan, such as the County's Emergency Response Plan, or the safety zones designated by the applicable airport land use compatibility plans. Lastly, this alternative would not result in the potential for hazards related to wildland fire. Therefore, the No Project/No Build Alternative would result in reduced impacts related to the hazardous materials sites.

Historic Resources/Tribal Cultural Resources

The No Project/No Build Alternative would not include any demolition or construction activities, so it would not result in impacts to built environment historic resources, archaeological resources, human remains, or TCRs; nor have the potential for inadvertent discovery of archaeological resources, TCRs or human remains. The proposed Program would result in significant and unavoidable impacts to a listed historic resources, and potentially significant impacts to archaeological resources and human remains prior to mitigation; thus, the No Project/No Build Alternative would reduce the significant and unavoidable impact to a historic resource and the less than significant impacts related to archaeological resources that would result from the Proposed Program.

Hydrology

The No Project/No Build Alternative would not require the use of groundwater, and would not result in any construction activities that could have impacts on drainage patterns or water quality in the Improvement Zone. This alternative would not include the storage of bulk quantities of hazardous materials that would be at risk of release due to inundation. This alternative would not propose any development and would not conflict with the San Diego Basin Water Quality Control Plan. As such, the No Project/No Build Alternative would result in slightly reduced impacts to hydrology and water quality compared to the proposed Program, which would result in less than significant impacts. However, this alternative would not result in any benefits to hydrology and water quality, while the proposed Program would improve drainage, filtration and water flow in several areas of the Improvement Zone, and would improve water quality overall in Mission Bay.

Land Use

The No Project/No Build Alternative would not result in any changes or development that would conflict with the environmental goals, objectives, or guidelines of a General Plan or Community Plan or other applicable land use plan, such as the Mission Bay Park Master Plan. However, the No Project/No Build Alternative would not include development of the North Fiesta Island Least Tern Preserve on the western portion of the island and the wetland habitat on the eastern side of the island. If this component is not developed, the site would continue to be inconsistent with the Fiesta

Island Mission Bay Master Plan Amendment, which included a Concept Plan for the uses of the North Fiesta Island, specifically identified the Least Tern Preserve area on the western portion of the island and wetland, and pedestrian and bike path uses on the eastern side of the island, with the northern portion being divided from the rest of Fiesta Island with a channel. The No Project/No Build Alternative would not be consistent with this Concept Plan. This inconsistency would be a similar impact compared to the proposed Program.

Noise

The No Project/No Build Alternative would not result in any demolition or construction activities that would result in impacts related to ambient noise or vibration above the accepted performance standards. This alternative would result in reduced impacts related to noise and vibration compared to the proposed Program.

Recreation

The No Project/No Build Alternative would not implement development activities and therefore would not result in an impact to the deterioration of parks or the need for construction or expansion of recreational facilities. Additionally, the No Project/No Build Alternative would not result in any improvements to recreational facilities as the proposed Program would with the implementation of the Bicycle and Pedestrian Improvements Element. As such, this alternative would result in less-than-significant impacts to parks and recreational facilities, which would be reduced impacts compared to the proposed Program.

6.4.3 RELATIONSHIP TO PROJECT OBJECTIVES

The No Project/No Build Alternative would not entirely meet any of the project objectives, because it would not implement any wetland restoration, shoreline protection and restoration, habitat and preserve expansion, or any other improvements. The No Project/No Build Alternative would partially meet Project Objective 4, because ongoing maintenance and capital improvement projects are carried out as part of the operation of Mission Bay Park, which would include maintenance and regular replacement of recreational and public safety facilities as needs are assessed and prioritized. However, ongoing maintenance does not prioritize deferred maintenance projects as identified in Project Objective 4; therefore, the No Project/No Build Alternative would not entirely meet Project Objective 4.

6.4.4 INCREASED PUBLIC ACCESS ALTERNATIVE

The Increased Public Access Alternative would include two alternative designs for two improvements as part of the Program. The first alternative design would reduce the amount of restoration area

proposed for the South Shores area of Mission Bay, only retaining a small area for the preservation of Nutall's lotus habitat. This portion of the alternative design is described in more detail in the next paragraph. The second portion of the alternative design for this alternative is the development of a culvert instead of a channel and a bridge over Tecolote Creek for the Tecolote Creek/Fiesta Island Causeway Wetland component. This design is described in more detail below.

Reduced South Shores Habitat Expansion

The Increased Public Access Alternative would reduce the proposed habitat expansion included in the Sea World Drive/San Diego River Site No. 5c – South Shores Restoration and Enhancement Area as part of the Upland Habitat and Preserve Expansion Element. This alternative would allow for protection of the existing Nuttall's lotus population within the center of the site, but would not propose expansion of any other habitat type, as is proposed as part of the Upland Habitat and Preserve Expansion Element. This would result in the preservation and restoration of approximately 3 acres of primarily coastal strand vegetation community. Restoration activities would include non-native species eradication, sand import to improve soils, and coastal strand revegetation. The habitat expansion site would be reduced from 17.47 acres to 3 acres. This reduction in habitat expansion area would allow for the continued public access to the South Shores area, and the possibility of future development of the area for recreational purposes, as has been contemplated by the City. Existing uses, including informal trails, would remain outside of the Nuttall's lotus habitat protection area.

Fiesta Island Causeway Culvert

The Increased Public Access Alternative would include an alternate design to the proposed Fiesta Island Causeway. A (two-way) culvert beneath the existing Fiesta Island Causeway would be constructed to connect the north and south basins and allow water flow. This would be constructed by excavation and placement and would be accomplished by allowing one lane of the causeway to remain open to traffic with flaggers. The causeway component would be installed using excavators to remove the portion of the causeway needed for the culvert or the bridge. The culvert would be placed on a bedding layer of rock and backfilled with earth material. Excavators would be used to remove the portion of the existing causeway needed to install the culvert.

The culvert would allow for continued access to Fiesta Island along the existing public roadway with a single open lane and flaggers during construction, similar to the construction of the bridge across the Fiesta Island causeway under the proposed Program; however, the construction period would be shorter to build the culvert than to construct the bridge and the channel. In addition, the culvert alternative design would require a reduced footprint compared to the bridge, because it would be excavated from the existing causeway, while the bridge would be a constructed by drilling cast-in-

drilled-hole piles for the substructure, constructing abutments and bent caps, placing pre-cast concrete girders, and then casting the deck and barriers across the span of the proposed channel.

The culvert is a less optimal alternative compared to an open channel from a hydrologic perspective because it could hamper connectivity and tidal flow and would be hydraulically less efficient than an open channel. A culvert could also present an impediment to wildlife movement, while the open channel/bridge alternative would allow for clear passage for shore birds and other wildlife. A culvert may also pose a public safety threat to people unless well-marked, cordoned off, and screened over the opening.

Inspection and maintenance of the culvert would be conducted periodically to ensure proper functioning. Inspection and maintenance frequency would vary with site conditions, such as the presence of floating debris, which can plug the opening, marine fouling organisms (mussel growth), and vandalism. Inspections would occur every year, with periodic cleaning (if necessary) to maintain smooth operation. Inspections would verify the condition of the openings and of the wetland water levels to confirm unimpeded connections. If a marine fouling community develops inside the culvert pipe, the fouling may have to be periodically removed. Cleaning of the culverts would be conducted with a hand scraper or power washer to remove bio-fouling and accumulated sediment only if they interfere with the conveyance of water through the pipes.

6.4.5 ANALYSIS OF THE INCREASED PUBLIC ACCESS ALTERNATIVE

Air Quality

The Increased Public Access Alternative would not result in any development that would induce population or employment growth, similar to the Program. This alternative would result in slightly reduced construction-related air emissions because both the Reduced South Shores Habitat Expansion and Tecolote Creek and Fiesta Island Causeway Culvert alternative designs would reduce the footprint of the construction areas compared to the proposed Program, and thus would reduce the amount of construction equipment used and the duration of the construction activities conducted for these two components. However, this alternative would still result in potentially significant impacts prior to mitigation due to the potential to exceed mass daily emission thresholds during concurrent construction of activities, assuming the worst-case emissions scenario. Due to this potential impact during construction, the Increased Public Access Alternative would result in conflict with the applicable plans for the San Diego Air Basin (Regional Air Quality Strategy and State Implementation Plan) prior to mitigation, similar to the proposed Program.

Also similar to the proposed Program, this alternative would result in a less than significant impact related to odors and because it would not introduce any land uses typically associated with nuisance odors. Further, this alternative would not significantly affect air movement in the area, and impacts

would be less than significant**.** Therefore, overall, the Increased Public Access Alternative would have a similar impact to air quality compared to the proposed Program.

Biological Resources

Compared to the proposed Program, the Increased Public Access Alternative would result in slightly reduced direct impacts to special status species due to a smaller footprint of impact areas. Specifically, the Reduced South Shores Habitat Expansion design alternative would slightly reduce direct impacts to Diegan coastal sage scrub, a sensitive vegetation community, and special status plant species California mustard, Aphanisma, Coast woolly-heads, Nuttall's Acmispon, Coulter's salt bush, south coast saltscale, and Brand's star phacelia.

The Reduced South Shores Habitat Expansion design would result in a slightly reduced potential direct impact sensitive wildlife species coastal California gnatcatcher, burrowing owl, and Crotch's bumble bee, due to the reduced area proposed for restoration and habitat expansion.

However, the Reduced South Shores Habitat Expansion design would result in a smaller area of restoration and would result in less restored habitats that may be suitable as mitigation for significant impacts of this component and other components of the Program.

The Fiesta Island Causeway Culvert design would result in similar direct and indirect impacts to special status and sensitive species as the proposed Program because the alternative would result in a slightly reduced footprint of the culvert compared to the proposed bridge, but the overall development footprint would remain the same.

Therefore, this alternative would result in slightly reduced direct impacts to biological resources impacts compared to the proposed Program, prior to mitigation measures. However, this alternative would result in slightly less expanded habitat and restoration in the South Shores area, resulting in decreased potential habitat for sensitive species within the upland area compared to the proposed Program. Regarding impacts to biological resources, the Increased Public Access Alternative would result in slightly less impacts than the Program.

Energy

The Increased Public Access Alternative would result in slightly reduced construction activities due to the reduced habitat restoration area in Sea World Drive/San Diego River Site No. 5c – South Shores Restoration and Enhancement Area; therefore, it would result in a slightly reduced consumption of energy resources used for construction. Maintenance activities would occur, consistent with existing conditions. Thus, this alternative would not result in wasteful, inefficient, or unnecessary consumption of energy resources; nor conflict with the City of San Diego CAP, San Diego Association of

Governments Regional Transportation Plan/Sustainable Communities Strategy, and CARB Scoping Plan, similar to the proposed Program.

Geology and Soils

The Increased Public Access Alternative would consist principally of similar construction activities to the proposed Program, with slightly reduced restoration activities in the Sea World Drive/San Diego River Site No. 5c – South Shores Restoration and Enhancement Area, and slightly reduced activities associated with the construction of a culvert at the existing Fiesta Island Causeway. Construction of the culvert, instead of a bridge and channel as is proposed as part of the Program, would result in similar ground-disturbing activities, which could result in erosion, sedimentation, or unstable soils. Implementation of the proposed components would be required to comply with applicable regulations and industry standards and codes, including the San Diego Municipal Code (grading requirements), the City's Stormwater Standards Manual, and National Pollutant Discharge Elimination System Construction General Permit requirements to reduce potential impacts related to erosion and sedimentation hazards to an acceptable level of risk, similar to the proposed Program.

Greenhouse Gas Emissions

Compared to the proposed Program, the Increased Public Access Alternative would result in slightly reduced greenhouse gas (GHG) emissions due to slightly reduced construction activities as part of the implementation of the Reduced South Shores Habitat Expansion design and the Fiesta Island Causeway Culvert design. The Increased Public Access Alternative would not conflict with the CAP's strategies and the City's General Plan, or another applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Increased Public Access Alternative would have a less-than-significant GHG impact, similar to the proposed Program.

Health and Safety

The Increased Public Access Alternative would require the use, transport, or storage of hazardous materials or acutely hazardous materials, substances, or waste during construction. These materials include, but are not limited to, gasoline, diesel fuel, lubricants, grease, adhesives, welding gases, solvents, paints, and vehicle- and equipment-maintenance-related materials. These materials would be stored in designated construction staging areas within the boundaries of the Improvement Zone. The construction contractor would be required to ensure that the transport, handling, use, storage, and disposal of any hazardous materials are in accordance with the manufacturer's specifications and all applicable federal, state, and local laws and regulations. Development of this alternative would also be required to comply with applicable regulations as they relate to the handling of hazardous waste or materials in proximity to a school.

This alternative would result in similar impacts related to the development of a site included on a hazardous materials site. The Reduced South Shores Habitat Expansion would result in slightly less restoration of the South Shores area within the area containing the Mission Bay Landfill site. The area that would still be preserved and restored for Nuttall's Lotus habitat would be designed to minimize the risk of disturbing any potential hazardous materials associated with the previous landfill, similar to the proposed Program, and impacts would be less than significant. The Fiesta Island Causeway Culvert design would result in excavation or disturbance within the Tecolote Creek area, similar to the proposed Tecolote Creek and Fiesta Island Causeway component, which could potentially disturb and require the disposal of contaminants / hazardous materials associated with a prior use in that location. Because of this, impacts would be considered potentially significant prior to mitigation, similar to the proposed Program.

This alternative would involve similar types of construction activities; thus, it would not conflict with an applicable emergency response plan, such as the County's Emergency Response Plan, or the safety zones designated by the applicable airport land use compatibility plans. Finally, operation of this alternative would not result in a change of land use or activities and would, therefore, not increase the use of hazardous materials within the Program area. Therefore, the Increased Public Access Alternative would result in similar impacts to the Program.

Historic Resources and Tribal Cultural Resources

The Increased Public Access Alternative would not include any activities that would result in a change in the potential impacts to built environment, historic resources, archaeological resources, TCRs, or human remains compared to the proposed Program. Similar to the proposed Program, this alternative would have the potential to result in a significant and unavoidable impact to a historic resource because the proposed improvements to the Mission Beach Seawall, a historic resource under CEQA, would not meet all of Secretary of Interior's Standards. The Increased Public Access Alternative would also have the potential for impacts to an archaeological resource due to construction of the Rose Creek Bike Path improvements. This alternative would similarly have the potential to impact TCRs due to ground-disturbing activities associated with the Restoration of Seawall Bulkhead Element. Further, inadvertent discovery of archaeological resources or human remains due to ground-disturbing activities could still occur, which would result in a potentially significant impact, similar to the proposed Program. Therefore, this alternative would result in similar significant and unavoidable impacts related to historical resources and less-than-significant impacts with mitigation to archaeological resources and tribal cultural resources.

Hydrology

The Increased Public Access Alternative would not require the use of groundwater. The Increased Public Access Alternative would result in construction activities that could have impacts on drainage patterns or water quality in the Improvement Zone; however, Adherence to applicable requirements and implementation of the appropriate best management practices would ensure that pollutant discharge associated with construction activities would be minimized. Similar to the proposed Program, risks associated with flooding due to dam failure are considered minimal, and therefore, impacts associated with the risk of pollutant release in the event of dam failure would be less than significant. This alternative would comply with applicable water quality standards and would not propose any development and would not conflict with the San Diego Basin Water Quality Control Plan, similar to the proposed Program. As such, the Increased Public Access Alternative would result in similar impacts to hydrology and water quality compared to the proposed Program, which would result in less-than-significant impacts. However, this alternative would not result in reduced benefits to hydrology and water quality in the Tecolote Creek basin area because the culvert design would hamper connectivity and tidal flow and would be hydraulically less efficient than an open channel.

Land Use

The Increased Public Access Alternative would not result in any changes or development that would directly conflict with the environmental goals, objectives, or guidelines of a General Plan or Community Plan or other applicable land use plan, such as the Mission Bay Park Master Plan. The Reduced South Shores Habitat Restoration design would allow for continued public access to the South Shores area, and the possibility of future development of the area for recreational purposes, as has been contemplated by the City. This alternative would result in a similar impact compared to the proposed Program.

Noise

Compared to the proposed Program, the Increased Public Access Alternative would result in slightly reduced short-term construction noise. This reduction would be due to the use of fewer noise-generating pieces of construction equipment that would be utilized for the installation of the culvert at the Fiesta Island Causeway compared to the bridge and channel installation. However, the other phases of the Tecolote Creek and Fiesta Island Causeway component would result in temporary construction noise over the acceptable thresholds, which would be a potentially significant impact prior to mitigation. This would be similar to the impacts resulting from the proposed Program. The Reduced South Shores Habitat Restoration design would not result in short-term noise levels above the acceptable thresholds, similar to the proposed Program. The Increased Public Access Alternative would not include any construction or operational activities that would result in impacts related to

vibration above the accepted performance standards. Therefore, this alternative would result in similar significant and unavoidable impacts related to noise, and less-than-significant impacts related to vibration, compared to the proposed Program.

Recreation

The Increased Public Access Alternative would not include construction or operational activities that would result in the deterioration of Mission Bay Park, nor result in the need for construction or expansion of recreational facilities, because this alternative would not induce increased use of Mission Bay Park by recreational users. The Reduced South Shores Habitat Expansion design would allow for continued use of the existing passive recreational features within the South Shores area, including formal and informal trails, and could allow for future development of recreational facilities; however, that is not proposed as part of this alternative. The recreation facilities proposed under this alternative including walkways and outlooks in wetlands and water quality improvements, seawall bulkhead restoration, and bike and pedestrian trail improvements, would potentially result in impacts described above to biological resources and cultural resources. As such, this alternative would result in significant unavoidable recreation impacts, similar to the proposed Program.

6.4.6 RELATIONSHIP TO PROJECT OBJECTIVES

The Increased Public Access Alternative would meet Project Objectives 1, 2, 4, 5 and 6. The Increased Public Access Alternative would meet Project Objective 3, however, it would not meet it to the extent that the proposed Program would, because this alternative would not include habitat restoration of the entire Sea World Drive/San Diego River Site No. 5c – South Shores Restoration and Enhancement Area, as the proposed Program would. This represents a gap in the potential expansion of habitat as identified in the Mission Bay Park Master Plan and therefore does not entirely meet the intent of Project Objective 3.

6.4.7 REDUCED HARDSCAPE ALTERNATIVE

This alternative would reduce the amount of proposed "hardscape" development; i.e., it would reduce the amount of human-made structural solutions for erosion, water quality improvements and water flow, and instead propose nature-based solutions for certain areas identified for improvement. The certain areas are listed and described below:

Crown Point Living Shoreline

The Crown Point Living Shoreline design portion of this alternative would incorporate a nature-based shoreline protection solution for erosion control and beach stabilization at the Crown Point Shoreline Restoration Site. This proposed alternative would include the development of a cobble foundation

that would be used to protect the beach from wave activity, to reduce erosion and hold the shoreline position. The cobble foundation would be an initial layer of material of large grain size that can maintain its general position on a beach under large wave events. The cobble foundation would secure a beach footprint of approximately 75 feet wide that would protect the pedestrian pathway and upland bluffs from undermining. This nature-based solution would also include beach nourishment to cover the cobble foundation, providing further wave protection and improving public beach and water access. Beach nourishment has the ability to be resilient to SLR; as the water level rises, the beach profile will retreat inland and rise in elevation. This alternative design can provide protection for several years, but will endure continuous erosion and will need to be re-nourished in the future.

This design option would replace the Crown Point Shoreline Restoration site proposed as part of the Program, which would construct an extension to the existing seawall along the shoreline at Crown Point, west of Ingraham Street.

Mission Beach/Pacific Beach Coastal Dunes

The Mission Beach/Pacific Beach Coastal Dunes design option would develop coastal dunes along the existing seawall between Balboa Court and Grand Avenue. Instead of parapet replacement along Segment A and Segment B of the seawall bulkhead, from Balboa Court to Thomas Avenue, as is proposed in the Program, this alternative would develop coastal dunes on the beach to the west of the seawall and boardwalk. The existing seawall bulkhead would be left in place. Instead of a new seawall along Segment C, this alternative would develop coastal dunes along the beach to the west of the boardwalk. This alternative design would be similar to the winter sand berms that are currently built during winter months to protect the boardwalk, with the crest reaching approximately 5 feet above ground level. The dunes would be seeded or planted with an appropriate plant palette mix for coastal dunes in the area. The dunes would be constructed with openings to allow for public access to the beach that would coincide with the existing public access pathways along the boardwalk; however, this design alternative would include the construction of enhanced ADA-compliant access pathways or ramps.

This design alternative would replace the Restoration of Seawall Bulkhead Element of the proposed Program.

6.4.8 ANALYSIS OF THE REDUCED HARDSCAPE ALTERNATIVE

Air Quality

The Reduced Hardscape Alternative would not result in any housing or development that would induce population or employment growth, similar to the Program. This alternative would result in

slightly reduced construction-related air emissions because both the Crown Point Living Shoreline and the Mission Beach/Pacific Beach Coastal Dunes design alternatives would reduce the amount of construction equipment necessary for the Crown Point Shoreline Restoration component and the Restoration of Seawall Bulkhead Element, respectively, due to the reduced intensity of the demolition and construction activities. This would reduce the amount of construction equipment used and the duration of the construction activities conducted for these two portions of the Program. However, this alternative would still result in potentially significant impacts prior to mitigation due to the potential to exceed mass daily emission thresholds during concurrent construction of activities, assuming the worst-case emissions scenario (i.e., multiple components constructed at one time). Due to this potential impact during construction, the Reduced Hardscape Alternative would result in impacts related to conflict with the applicable plans for the San Diego Air Basin (Regional Air Quality Strategy and State Implementation Plan) prior to mitigation, similar to the proposed Program.

Also similar to the proposed Program, this alternative would result in a less-than-significant impact related to odors and because it would not introduce any land uses typically associated with nuisance odors. Further, this alternative would not significantly affect air movement in the area, and impacts would be less than significant**.** Therefore, overall, the Reduced Hardscape Alternative would have a similar impact to air quality compared to the proposed Program.

Biological Resources

Compared to the proposed Program, the Reduced Hardscape Alternative would result in similar direct impacts to special status species. The alternative designs included as part of this alternative would not result in a change to the potential direct or indirect impacts to special status species, habitat, or wildlife corridors. Therefore, this alternative would result in potentially significant direct impacts to biological resources compared to the proposed Program, prior to mitigation measures.

Energy

The Reduced Hardscape Alternative would result in slightly reduced construction equipment due to the reduced intensity of development associated with the Crown Point Shoreline seawall extension and the Mission Beach seawall bulkhead restoration and new construction; therefore, it would result in a slightly reduced consumption of energy resources used for construction. Maintenance activities would occur, consistent with existing conditions. Thus, this alternative would not result in wasteful, inefficient, or unnecessary consumption of energy resources; nor conflict with the City of San Diego CAP, San Diego Association of Governments Regional Transportation Plan/Sustainable Communities Strategy, and CARB Scoping Plan, similar to the proposed Program.

Geology and Soils

The Reduced Hardscape Alternative would consist of slightly reduced ground-disturbing construction activities due to the reduced intensity of development associated with the Crown Point Shoreline seawall extension and the Mission Beach seawall bulkhead restoration and new construction. Construction of a cobble foundation instead of an extension of a seawall would reduce ground-disturbing activities, because it would not use impact pile driver or vibratory pile driver equipment. Construction of the coastal dunes, instead of the restoration of the existing seawall and construction of a new segment of seawall as is proposed as part of the Program, would result in reduced ground disturbance as well, because it would not include the use of excavators. This reduction in ground-disturbing activity would result in a reduction of erosion, sedimentation, or the creation of unstable soils; however, it would not remove the potential for these soil conditions entirely. Implementation of the proposed design alternatives, as well as the other components of the Program, would be required to comply with applicable regulations and industry standards and codes, including the San Diego Municipal Code (grading requirements), the City's Stormwater Standards Manual, and National Pollutant Discharge Elimination System Construction General Permit requirements to reduce potential impacts related to erosion and sedimentation hazards to an acceptable level of risk. This would result in a less-than-significant impact, similar to the proposed Program.

Greenhouse Gas Emissions

Compared to the proposed Program, the Reduced Hardscape Alternative would result in slightly reduced GHG emissions due to slightly reduced construction activities as part of the implementation of the alternative designs. The Reduced Hardscape Alternative would not conflict with the CAP's strategies and the City's General Plan, or another applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of GHGs. The Reduced Hardscape Alternative would have a less-than-significant GHG impact, similar to the proposed Program.

Health and Safety

The Reduced Hardscape Alternative would require the use, transport, or storage of hazardous materials or acutely hazardous materials, substances, or waste during construction. These materials include, but are not limited to, gasoline, diesel fuel, lubricants, grease, adhesives, welding gases, solvents, paints, and vehicle- and equipment-maintenance-related materials. These materials would be stored in designated construction staging areas within the boundaries of the Improvement Zone. The construction contractor would be required to ensure that the transport, handling, use, storage, and disposal of any hazardous materials are in accordance with the manufacturer's specifications and all applicable federal, state, and local laws and regulations. Development of this alternative would also be required to comply with applicable regulations as they relate to the handling of hazardous waste or materials in proximity to a school.

This alternative would result in similar impacts related to the development of a site included on a hazardous materials site. This alternative would involve similar types of construction activities; thus, it would not conflict with an applicable emergency response plan, such as the County's Emergency Response Plan, or the safety zones designated by the applicable airport land use compatibility plans. Finally, operation of this alternative would not result in a change of land use or activities and would, therefore, not increase the use of hazardous materials within the Program area. Therefore, the Reduced Hardscape Alternative would result in similar impacts to the Program.

Historic Resources and Tribal Cultural Resources

The Reduced Hardscape Alternative would not result in a change in the potential impacts to archaeological resources, TCRs, or human remains compared to the proposed Program. While there would be reduced ground-disturbing construction activities associated with both design alternatives, there would still be ground-disturbing activities necessary as part of mobilization and clearing and grubbing activities for the Crown Point Living Shoreline and Mission Beach/Pacific Beach Coastal Dunes alternatives. Because ground disturbance would still occur along the beachfront for the Mission Beach/Pacific Beach Coastal Dunes would still occur, potential impacts to TCRs may still occur. Additionally, potential impacts to archaeological resources due to the construction of the Rose Creek Bike Path improvements would still occur. The Reduced Hardscape Alternative would have the potential for inadvertent discovery of archaeological resources or human remains due to ground-disturbing activities, which would result in a potentially significant impact prior to mitigation.

This alternative would replace the Restoration of Seawall Bulkhead Element of the proposed Program with the Mission Beach/Pacific Beach Coastal Dunes design option. Therefore, the Reduced Hardscape Alternative would not involve any demolition or reconstruction of the Mission Beach Seawall, a historic resource under CEQA. Significant and unavoidable impacts related to historic resources would be avoided. While this alternative would result in potentially significant impacts related to archaeological resources, TCRs, or human remains, it would avoid significant and unavoidable impacts related to built environment. Therefore, this alternative would result in reduced impacts to historical resources.

Hydrology

The Reduced Hardscape Alternative would not require the use of groundwater. While there would be reduced ground-disturbing construction activities associated with both design alternatives, there would still be ground-disturbing activities necessary as part of mobilization and clearing and grubbing activities; as such, the Reduced Hardscape Alternative would result in potential impacts on drainage patterns or water quality in the Improvement Zone. However, adherence to applicable requirements and implementation of the appropriate best management practices would ensure that pollutant discharge associated with construction activities would be minimized. Similar to the proposed Program, risks

associated with flooding due to dam failure are considered minimal, and therefore, impacts associated with the risk of pollutant release in the event of dam failure would be less than significant.

This alternative would comply with applicable water quality standards, and would not propose any development and would not conflict with the San Diego Basin Water Quality Control Plan, similar to the proposed Program. As such, the Reduced Hardscape Alternative would result in similar impacts to hydrology and water quality compared to the proposed Program, which would result in less-than-significant impacts.

Land Use

The Reduced Hardscape Alternative would not result in any changes or development that would directly conflict with the environmental goals, objectives, or guidelines of a General Plan or Community Plan or other applicable land use plan, such as the Mission Bay Park Master Plan. The nature-based design alternatives would be supportive of the goals of the Climate Resilient SD Plan and the Draft Coastal Resilience Master Plan, which is a proposed implementation action of Climate Resilient SD, and identifies potential nature-based solutions to improve resilience to SLR for the coastal communities of San Diego. This alternative would result in a similar impact compared to the proposed Program.

Noise

Compared to the proposed Program, the Reduced Hardscape Alternative would result in reduced short-term construction noise. The construction of a cobble foundation and beach nourishment at the Crown Point Shoreline Restoration site would remove the need for loud equipment such as a vibratory pile driver and an impact pile driver. This would reduce the potentially significant construction noise impact at this component to less than significant and would remove the required implementation of mitigation. Similarly, the Mission Beach/Pacific Beach Coastal Dune design alternative would remove the need for concrete saw, crane, pumps, and air compressors, concrete mixer trucks, paver and roller equipment, which would significantly reduce the construction noise. The impact would be reduced from significant and unavoidable to less than significant, which would remove the need for mitigation. However, the other components of the Program would also be implemented under this alternative, including the Tecolote Creek and Fiesta Island Causeway component, the Restoration of Shoreline Element, and the Bicycle and Pedestrian Improvements Element, which would result in potentially significant short-term construction noise impacts prior to mitigation. Proposed mitigation measures would reduce these impacts to less than significant. As such, this alternative would reduce significant and unavoidable impacts to less-than-significant impacts, which would be a reduction of noise impacts compared to the proposed Program. The Reduced Hardscape Alternative would not include any construction or operational activities that would result in impacts related to vibration above the accepted performance

standards. Therefore, this alternative would result in similar impacts related to vibration compared to the proposed Program.

Recreation

The Reduced Hardscape Alternative would not include construction or operational activities that would result in the deterioration of Mission Bay Park, or other nearby parks, nor result in the need for construction or expansion of recreational facilities, because this alternative would not induce increased use of Mission Bay Park by recreational users. The recreation facilities proposed under this alternative including walkways and outlooks in wetlands and water quality improvements, seawall bulkhead restoration, and bike and pedestrian trail improvements, would potentially result in impacts described above to biological resources, but not those associated with cultural resources. As such, this alternative would result in significant unavoidable recreation impacts, similar to the proposed Program.

6.4.9 RELATIONSHIP TO PROJECT OBJECTIVES

The Reduced Hardscape Alternative would meet Project Objectives 1 through 5. The Reduced Hardscape Alternative would not meet Project Objective 6, which sets forward the objective of restoring the seawall bulkhead "to a condition no less than the quality of restoration previously performed in 1998 from Thomas Street to Pacific Beach Drive or to conditions as may be required by historic standards". Because the Mission Beach/Pacific Beach Coastal Dune design alternative does not include the restoration of any segment of the seawall bulkhead and instead proposes the development of coastal dunes, this alternative does not meet the intent of Project Objective 6.

6.5 ENVIRONMENTALLY SUPERIOR ALTERNATIVE

CEQA Guidelines, Section 15126.6(e)(2), requires the identification of an environmentally superior alternative among the alternatives analyzed in an EIR. The guidelines also require that if the No Project Alternative is identified as the environmentally superior alternative, then another environmentally superior alternative must be identified among the other alternatives.

Based on the comparison of impacts, the No Project/No Build Alternative would result in no impacts identified as significant and unavoidable or less than significant with mitigation incorporated and would result in reduced impacts compared to the proposed Program; and as such, would be identified as the environmentally superior alternative. However, the No Project/No Build Alternative would not result in any environmentally beneficial improvements.

Among the remaining alternatives, the Reduced Hardscape Alternative would reduce the most potentially significant impacts compared to the proposed Program, including the significant and unavoidable short-term construction noise impact associated with the Restoration of Seawall

Bulkhead Element, and the significant and unavoidable impacts to built environment associated with the Restoration of Seawall Bulkhead Element. Due to these reductions of potentially significant impacts identified in this EIR, the Reduced Hardscape Alternative is identified as the environmentally superior alternative among the other alternatives.

Table 6-1
Summary of Impacts for Each Alternative

Environmental Issue	Proposed Program	No Project/No Build Alternative	Increased Public Access Alternative	Reduced Hardscape Alternative
4.1 Air Quality	LTSM	LTS ▼	LTSM =	LTSM =
4.2 Biological Resources	SU	LTS ▼	SU ▼	SU =
4.3 Energy	LTS	LTS ▼	LTS ▼	LTS ▼
4.4 Geology and Soils	LTS	LTS ▼	LTS ▼	LTS ▼
4,5 Greenhouse Gas Emissions	LTS	LTS ▼	LTS ▼	LTS ▼
4.6 Historical Resources	SU	LTS ▼	SU =	LTSM ▼
4.7 Health and Safety	LTSM	LTS ▼	LTSM =	LTSM =
4.8 Hydrology and Water Quality	LTS	LTS ▼	LTS =	LTS =
4.9 Land Use and Planning	LTS	LTS ▼	LTS =	LTS =
4.10 Noise	SU	LTS ▼	SU ▼	LTSM ▼
4.11 Recreation	SU	LTS ▼	SU =	SU =
4.12 Tribal Cultural Resources	LTSM	LTS ▼	LTSM =	LTSM =
Meets Most of the Basic Project Objectives?	**Yes**	**No**	**No**	**Yes**

Notes: LTSM = less than significant with mitigation incorporated; LTS = less than significant; SU = significant and unavoidable.

▲ Alternative is likely to result in substantially greater impacts to issue when compared to Program.
= Alternative is likely to result in similar impacts to issue when compared to Program.
▼ Alternative is likely to result in substantially reduced impacts to issue when compared to Program.

7 OTHER CEQA CONSIDERATIONS

Sections 15126.2 and 15128 of the California Environmental Quality Act (CEQA) Guidelines require that an environmental impact report (EIR) provide a summary of growth-inducing impacts, effects found not to be significant, significant and unavoidable impacts, and significant irreversible environmental changes that would result from implementation of the Mission Bay Park Improvements Program (Program). These findings are based in part on the analysis provided in Chapter 4, Environmental Impact Analysis.

7.1 GROWTH INDUCEMENT

CEQA Guidelines Section 15126.2(e) requires that EIRs include an evaluation of potential growth inducement impacts to "[d]iscuss the ways in which the proposed project could foster economic or population growth, or the construction of additional housing, either directly or indirectly, in the surrounding environment." This evaluation includes projects that remove obstacles to population growth, such as through the provision of expanded public utility capacity that may allow additional construction in the associated service area (e.g., the major expansion of a wastewater treatment plant). The referenced CEQA Guidelines section also notes that "It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment."

The City of San Diego (City) CEQA Significance Determination Thresholds (City of San Diego 2022a) provide additional direction on this issue, noting that growth inducement:

> …is usually associated with those projects that foster economic or population growth, or the construction of additional housing, either directly or indirectly which may result in the construction of major and new infrastructure facilities. Also, a change in land use policy or projects that provide economic stimulus, such as industrial or commercial uses, may induce growth. Accelerated growth may further strain existing community facilities or encourage activities that could significantly affect the surrounding environment.

The City's CEQA Significance Determination Thresholds (City of San Diego 2022a) also state that "the analysis must avoid speculation and focus on probable growth patterns or projects."

Short-Term Growth Inducement

During Program improvement activities, demand for various construction trade skills and labor would increase. It is anticipated that this demand would be met predominantly by the local labor force and would not require importation of a substantial number of workers or cause an increased demand for temporary or permanent local housing. Further, implementation of the elements would not occur

simultaneously, and Program improvement activities are expected to occur over several years, with each improvement component occurring over different time frames, from a few months to more than 1 year. Since the Program would involve short-term and temporary construction and improvement activities, it would not lead to an increase in employment on site that would stimulate the need for additional housing or services. Accordingly, no associated substantial short-term growth-inducing effects would result.

Long-Term Growth Inducement

The proposed Program is an improvement program with specific elements to be implemented throughout Mission Bay Park. The proposed Program is specifically intended to address issues related to water quality and water circulation improvements, habitat improvements, and visitor-serving improvements. Program visitor-serving improvements would include bicycle and pedestrian improvements and deferred maintenance activities, such as improvements to playgrounds, comfort stations, furnishings, and parking lots. These visitor-serving improvements would provide improved recreational opportunities to visitors; however, it is expected that these improvements would serve the existing residents in the San Diego area, as well as visitors. The Program would not introduce additional structures that would accommodate new employment or housing uses or any major road or utility infrastructure upgrades to the area that could induce significant growth.

The Program supports alternative transportation modes, such as walking and biking, and the Program area currently connects to existing City roadways, bicycle paths, pedestrian paths, and bus routes.

The Program would not foster economic or population growth or cause the construction of additional housing either directly or indirectly. The Program would not promote growth patterns resulting in the need for and/or provision of new utilities because the proposed Program would be located in areas with existing utilities and would not require the replacement or improvement of any existing utilities. As such, the Program would not support unplanned population growth. Therefore, no long-term growth inducement impacts would occur.

7.2 EFFECTS FOUND NOT TO BE SIGNIFICANT

Section 15128 of the CEQA guidelines requires that an EIR briefly describe potential environmental effects that were determined not to be significant and therefore were not discussed in detail in the EIR. The environmental issues discussed in the following sections are not considered significant, and the reasons for the conclusion of non-significance are discussed below.

7.2.1 AGRICULTURAL AND FORESTRY RESOURCES

7.2.1.1 Farmland Mapping and Monitoring Program

Based on farmland mapping prepared by the California Department of Conservation's Farmland Mapping and Monitoring Program (DOC 2024b), the Program area is not identified as containing Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Most of the Program area is classified as Urban and Built-up Land and water. A few areas within the Program area are mapped as Other Land. Therefore, there would be no impact to Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

7.2.1.2 Agricultural Zoning/Williamson Act

The Program area does not have any lands under a Williamson Act contract (DOC 2024c). There are no areas in the Program area zoned for agricultural uses (City of San Diego 2024i). Therefore, no impact is identified for this issue area.

7.2.1.3 Forest, Timberland, Timberland Production Zone

There are no existing forestlands, timberlands, or timberlands-zoned Timberland Production either within the Program area or in the immediate vicinity that would conflict with existing zoning or the proposed rezoning. Therefore, no impact is identified for this issue area.

7.2.1.4 Loss of Forest Land

There are no existing forestlands either within the Program area or in the immediate vicinity. Implementation of the proposed Program would not result in the loss of forestland or conversion of forestland to non-forest use. Therefore, no impact is identified for this issue area.

7.2.1.5 Conversion of Farmland or Forest

There are no existing forestland uses either within the Program area or the immediate vicinity. Implementation of the proposed Program would not involve any changes that could result in the conversion of farmland to non-agricultural use or the conversion of forestland to non-forest use. Therefore, no impact is identified for this issue area.

7.2.2 MINERAL RESOURCES

In accordance with guidelines established by the State Mining and Geology Board, mineral deposits in western San Diego County have been classified into Mineral Resources Zones (MRZs) as follows (City of San Diego 2022a):

MRZ-1: areas where adequate information indicates that no significant mineral deposits are present or where it is judged that little likelihood exists for their presence;

MRZ-2: areas where adequate information indicates that significant mineral deposits are present or where it is judged that a high likelihood for their presence exists;

MRZ-3: areas containing mineral deposits, the significance of which cannot be evaluated from available data;

MRZ-4: areas where available information is inadequate for assignment to any other MRZ.

The Conservation Element of the General Plan indicates that the Program area is classified as MRZ-1 and MRZ-3 (City of San Diego 2024b). As such, the Program areas would be in locations where adequate information indicates that no significant mineral deposits are present and in areas containing mineral occurrences of undetermined mineral resource significance. For the Program areas in MRZ-3, located at crown point and mission beach, the City has not identified these areas as a locally important mineral resource recovery sites. In addition, the surrounding area is urbanized with residential and commercial land uses that are incompatible with typical mineral extraction and processing operations. Implementation of the Program would not introduce new development that would conflict with existing uses. Therefore, implementation of the Program would not result in the loss of mineral resources of statewide or local importance or loss of a locally important mineral resource recovery site. **No impact** would result.

7.2.3 PALEONTOLOGICAL RESOURCES

Impacts to paleontological resources were previously analyzed at a program level in the Mission Bay Park Master Plan EIR, which concluded that impacts were not expected to occur because the filling and dredging associated with the development of the area since the 1940s would have already disturbed any paleontological resources (City of San Diego 1994). While most of the Mission Bay Park Improvement Zone (Improvement Zone) is underlain by artificial fill, which has low to no paleontological sensitivity, some areas are underlain by Marine beach deposits (Qmb), Old paralic deposits, Unit 6 (Qop6), and Young alluvial deposits (Qay) (Appendix F). Old paralic deposits, Unit 6, is considered highly sensitive for paleontological resources. As such, Restoration of Seawall Bulkhead and Restoration of Shoreline improvements, although primarily located along shorelines composed of artificial fill, may still be underlain by Qop6.

The Program would be required to comply with the grading requirements in the San Diego Municipal Code, Section 142.0151, Paleontological Resources Requirements for Grading Activities, which requires Paleontological resources monitoring to be conducted in accordance with the General Grading Guidelines for Paleontological Resources in the Land Use Development Manual. Monitoring

is mandated when grading involves 1,000 cubic yards or more and a depth of 10 feet or greater in high resource potential geologic units, or 2,000 cubic yards or more and 10 feet or greater in moderate resource potential geologic units. It is also required if grading occurs on or within 100 feet of a known fossil recovery site. If paleontological resources are discovered during grading, all work in the area must stop immediately until a qualified paleontological monitor evaluates the discovery and ensures proper recovery in accordance with the City's General Grading Guidelines for Paleontological Resources (City of San Diego 2025). Compliance with the grading requirements in the City's Municipal Code Section 142.0151 would ensure that impacts would be less than significant.

7.2.4 POPULATION AND HOUSING

As discussed in Section 7.1, Growth Inducement, the Program would not directly or indirectly induce population. The Program is intended to improve the water quality, water circulation, habitats, and visitor-serving pathways around Mission Bay. These improvements would serve the existing population and are not intended to bring in additional visitors. Additionally, there is no housing located at the Program site; therefore, no displacement of housing would occur.

7.2.5 PUBLIC SERVICES AND FACILITIES

7.2.5.1 Fire Protection and Emergency Services

The Program would not result in an increase in population that would require increased fire protection and emergency services for the area. Therefore, implementation of the Program would not result directly or indirectly in the construction of new or physically altered fire protection and emergency services facilities. Existing facilities would continue to serve the Improvement Zone and would not require construction new or alteration of existing facilities. Therefore, implementation of the Program would result in no impacts associated with the construction of new or physically altered facilities in order to maintain service ratios, response times, or other performance objectives related to fire/life safety protection.

7.2.5.2 Police Services

The Program would not result in an increase in population that would require increased police services for the area. Therefore, implementation of the Program would not result directly or indirectly in the construction of new or physically altered police facilities. Existing facilities would continue to serve the Improvement Zone and would not require the alteration of construction of new facilities. Therefore, no impact would occur.

7.2.5.3 School Facilities and Other Public Facilities (Parks or Other Recreational Facilities, Libraries, Maintenance of Public Facilities Including Roads)

The Program area contains areas encompassed within the boundaries of Mission Bay Park, Oceanfront Walk from the Mission Bay jetty to Crystal Pier and the adjoining seawall, coastal parks, and ocean beaches. The Program would not result in an increase in population that would result directly or indirectly in the construction or operation of new or physically altered libraries, schools, parks or other recreational facilities, and maintenance of public facilities including roads. No impact would occur.

7.2.6 PUBLIC UTILITIES

7.2.6.1 New or Expanded Utilities Fuel or Energy and Power, Water, Solid Waste Disposal, Sewer, Communication Systems)

The Program would not increase demands on public utilities, including natural gas, water, sewer, communication systems, and solid waste disposal, because the Program would not involve improvements that require new utility connections. Various utilities are located within the Program area, such as electrical lines, communications lines and/or towers, water hydrants, sewer manholes, drain structures, water mains, sewer mains, and drain conveyances. Utilities located at improvement sites would be considered during design and construction, and precautionary measures would be taken to protect any existing utilities or structures located at work sites. While modest adjustments to alignments for such utilities as electricity or communications may result from the program, as these are existing and no increase in demand or change to the service of utilities would result from the Program, sizing or capacity of existing lines and facilities would not be altered. It is anticipated that these facilities would not be affected by the proposed improvements.

7.2.6.2 Fuel or Energy (e.g., Natural Gas) and Power

The Program would not result in the use of excessive amounts of fuel, energy, or power. Impacts regarding natural gas and electricity usage are discussed in detail in Section 4.3, Energy. As detailed in Section 4.3, the Program would not result in the wasteful, inefficient, or unnecessary consumption of energy resources, including natural gas and electricity. Use of fuels would be limited to maintenance vehicles. Electricity would continue to be provided to facilities including restrooms and lighting at levels similar to existing. Additionally, natural gas consumption is not anticipated to be required during construction or operation. Therefore, no impact would occur.

7.2.6.3 Water

The Program area is connected to the City's municipal water system via underground pipelines. The Program would require landscaping, which would not involve new infrastructure connections nor involve development that could substantially increase the demand for water. All restoration elements and components include all native plants. Wetlands restorations would require no irrigation even to establish initial vegetation. Uplands restorations may require temporary limited watering to establish the planted species initially. Landscaping would consist of predominantly drought-resistant vegetation. Therefore, a less than significant impact would occur.

7.2.6.4 Solid Waste

Construction of the improvements within the Program would involve the excavation of earth material; however, the improvements would re-use usable earth materials between improvements to strategically balance cut and fill volumes across all sites. If the material cannot be reused, it would be hauled off-site for proper disposal at an approved landfill and may be suitable for capping material.

According to the City's CEQA Significance Determination Thresholds, projects that include the construction, demolition, or renovation of 1,000,000 square feet or more of building space may generate approximately 1,500 tons of waste or more and are considered to have direct impacts on solid waste facilities. The Program would not involve the construction, demolition, or renovation of 1,000,000 square feet or more of building space but would nevertheless generate waste from disposal of earth materials. Solid waste from demolition, construction, or renovation from structures or buildings would be created as a result of the Program. Useable earth moving solid waste would be re-used between improvements in order to divert waste from landfills. Therefore, the Program would not result in the construction, demolition, or renovation of 1,000,000 square feet or more of building space, and a less than significant impact would occur.

The City's CEQA Significance Determination Thresholds additionally require that cumulative impacts for solid waste are addressed. Projects that include the construction, demolition, and/or renovation of 40,000 square feet or more of building space may generate approximately 60 tons of waste or more and are considered to have cumulative impacts on solid waste facilities. The Program would not involve the construction, demolition, or renovation of 40,000 square feet or more of building space but would nevertheless generate waste from disposal of earth materials. As stated above, the Program would not result in solid waste from demolition, construction, or renovation from structures of 40,000 square-foot and useable earth moving materials would be reused between improvements. While more than 60 tons of material may be potential generated from excavations associated with the Program, these would be prioritized for reuse within the Program or other activities in the Improvement Zone and only disposed of if not suitable for that reuse. Furthermore, disposed of

material would be earthen and may be suitable as capping material at a landfill rather than additional disposal volume affecting capacity of that landfill. Therefore, the Program would not result in the construction, demolition, and/or renovation of 40,000 square feet or more of building space, and a less than significant impact cumulative would occur.

Furthermore, although the Program is not anticipated to result in the construction, demolition, and/or renovation of 1,000,000 square feet of building space, a Waste Management Plan, included in Appendix Q of this Program EIR, was prepared for the Program in order to address hazardous waste. Public projects are required to adhere to City of San Diego Administrative Regulations and "WHITEBOOK" (City of San Diego 2021a) specifications that require that the overall waste produced is reduced sufficiently to comply with waste reduction targets established in the Public Resources Code as well as San Diego Municipal Code §§66.0601–66.0610 (the City's Construction and Demolition Debris Diversion Deposit Program). Additionally, the Program would be required to comply with the City's General Plan PEIR mitigation including PF-1.2 and CE-A.2. The Program would comply with the City's solid waste requirements, and impacts would be less than significant.

7.2.6.5 Communications

The Program would not result in the use increased demand for or alteration of existing communications services. Telecommunications through wireless cell towers, fiber optic cabling and radio frequencies are widely available throughout the area. These facilities would not be expanded or increased as part of the Program and the Program would not result in altered demand for these services as the use and size of the facilities within the Improvement Zone would remain consistent with existing conditions. While adjustments to nominal communications lines within Program disturbance areas is possible it would be limited to nominal alignment adjustments to connect improved facilities or temporarily to accommodate construction activities. Therefore, no impact would occur.

7.2.7 TRANSPORTATION

7.2.7.1 Conflict with an Adopted Program, Plan, Ordinance, or Policy

Under the Bicycle and Pedestrian Improvements Element, improvements would be made to missing path connectivity, existing pavement conditions, wayfinding signage, path geometry, and safety and security features. The Program is not anticipated to conflict with any adopted plans, programs, ordinances, or policies. Rather, the Program is expected to support existing goals and policies related to transit, multi-modal transportation options, parks and recreation facilities, found in the City of San Diego General Plan, Mission Bay Master Plan, local community plans, and the San Diego Association of Governments Regional Plan (see Section 4.9, Land Use and Planning, for further consistency analysis). Compliance with applicable regulations will ensure that any potential conflicts are avoided or minimized. Therefore, impacts would be less than significant.

7.2.7.2 Vehicle Miles Traveled (VMT)

A 2025 VMT-Based Traffic Impact Analysis/Existing Condition Analysis Technical Memo (Mobility Memo) by Chen-Ryan (Appendix S) was prepared to assess potential impacts to transportation resources and facilities from the proposed Program, consistent with the City of San Diego Transportation Study Manual (2022d). The Mobility Memo found that none of the proposed Program elements would generate additional VMT, and all elements are presumed to result in less-than-significant transportation impacts under CEQA. The Program is not anticipated to result in significant VMT because the Program would focus on existing park maintenance and improvements and would not involve the addition of new park and recreational assets (e.g., parking lots) that would increase capacity or induce additional visitors or residents to the area. It is expected that these improvements would serve the existing residents in the San Diego area, as well as visitors, and would not increase VMT in the area. Therefore, impacts would be less than significant.

7.2.7.3 Hazardous Design Feature

The Program involves improvements to existing pedestrian and bicycle pathways but does not introduce new design features or alter existing roadways. Improvements include pavement repairs, wayfinding enhancements, stormwater upgrades, path widening, ADA-compliant curbs, and safety measures. The Program does not introduce new intersections or sharp curves. The Program does not introduce hazardous design features but rather improves existing pedestrian and bicycle infrastructure to enhance safety and accessibility. Other Program elements would not introduce hazardous design features. Impacts would be less than significant.

7.2.7.4 Emergency Access

As described in Section 4.7.5, the Program would not alter existing transportation facilities that have been identified as emergency routes or have been otherwise identified for use during an emergency, or existing emergency plan routes. The Program would comply with the County Emergency Operations Plan and would not interfere with emergency access. The traffic control permit is required for all work encroaching into public right-of-way and helps ensure safe continued use of routes of travel for vehicles, bicycles and pedestrians. Upon initiation of an individual component, it would be determined if a traffic control permit would be required from the City of San Diego. Further, all construction activity would be subject to the requirements and standards of the City's "WHITEBOOK"; specifically, Sections 600 and 601. No Program elements overlap with Caltrans facilities; however, temporary encroachment during construction activities may occur. Any construction activity that would involve permanent encroachment into California Department of Transportation (Caltrans) facilities (i.e., state highways) would be required to obtain an encroachment permit, which would also outline traffic control requirements. Compliance with the requirements of the traffic control permits

and the "WHITEBOOK" would ensure that during the temporary use of emergency access routes by construction vehicles and equipment during construction would not obstruct emergency response or evacuation. Therefore, impacts would be less than significant.

7.2.8 VISUAL EFFECTS AND NEIGHBORHOOD CHARACTER

7.2.8.1 Scenic Vistas or Views

Mission Bay is highly visible from several public roadways, including the southbound lanes of Interstate (I) 5 between Grand Avenue and Clairemont Drive; the westbound lanes of I-8; the Friars Road, Pacific Highway, and entrances to Mission Bay Drive the Midway Drive, Ingraham Street and Sunset Cliffs Boulevard bridges; and Clairemont Drive as it descends from the Clairemont hills, among several surrounding roadways. The areas of Mission Bay Park that are visible from these public roadways are called a "viewshed" (City of San Diego 2024a). There are no designated State Scenic Highways within or adjacent to the Program area. However, I-5, located directly to the east of the Program area, is an eligible State Scenic Highway (Caltrans 2025).

The proposed Program is intended to address issues related to water quality and water circulation improvements, habitat improvements, and visitor-serving improvements, in specifically identified areas. The Program would not create any new structures that would block scenic views. Rather, implementation of the Program would enhance the scenic views by improving the condition of the area and expanding areas of natural habitat. Therefore, implementation of the Program would not result in a substantial obstruction of any vista or scenic view within the Program area. Impacts to scenic vistas or views would be less than significant.

7.2.8.2 Neighborhood Character

The Program does not propose any structures that would alter the existing character or landscape of the area; the Program involves upgrades to existing infrastructure, including the Restoration of the Sea Wall Bulkhead. The Restoration of Seawall Bulkhead Element would be 6 to 12 inches tall and is proposed to match the existing historic defining characters of the seawall. Therefore, the Restoration of Sea Wall Bulkhead Element would not exceed the allowable height or bulk regulations and the height and bulk of the existing patterns of development in the vicinity of the components by a substantial margin. Therefore, the Program promotes consistency with the established aesthetic character of the area. It should be noted that the Restoration of the Seawall Bulkhead would result in a significant historical resources impact, which is addressed in Section 4.6, Historical Resources. The historical resources impact does not relate to the City's CEQA threshold regarding physical loss, isolation, or degradation of a historic landmark as the seawall would be restored in situ.

No distinctive or landmark trees are within the Program area; however, the Program could result in limited removal of non-native trees for the Restoration of Shoreline Element. The Program would retain existing trees in the Program area to the greatest extent possible. As such, the Program would not result in the loss of any distinctive or landmark trees; therefore, a less than significant impact would occur.

Overall, the Program would consist of improvement to the Improvement Zone, therefore contributing positively to the neighborhood character. Therefore, impacts to neighborhood character would be less than significant.

7.2.8.3 Landform Alteration

The City's CEQA Significance Thresholds state that a project may result in a significant impact if that project would alter more than 2,000 cubic yards of earth per graded acre by either excavation or fill, and if either of the following conditions apply: disturb steep hillsides in excess of encroachments allowances of Environmentally Sensitive Lands regulations, create manufactured slopes higher than ten feet or steeper than 2:1, or result in a change in elevation of steep hillsides. Although the Program would result in various forms of landform alterations such as wetland habitat creation for the Wetland and Water Quality Improvements Element; addition of sand, cobble, small boulders, and/or riprap for the Restoration of Shoreline Element; and modification of sand berms for the Upland Habitat and Preserve Expansion Element. These landform alterations would result in the alteration of more than 2,000 cubic years of earth; however, the alterations would be consistent with the appearance of the existing and surrounding landforms within Mission Bay, which are man-made, and the Program would achieve naturalized variable slopes. The Program would not substantially alter landforms such that negative visual impacts would occur as these improvements are beneficial to the environment and improvements of existing conditions. Impacts would be less than significant.

7.2.8.4 Development Features

The Program would not result in a negative visual appearance. The Program would consist of habitat and infrastructure improvements consistent with the existing habitats and infrastructure within the Improvement Zone. The Program does not propose an appearance that would substantially conflict with City codes, the height and bulk regulations of the zone. As described in Section 4.10, Noise, MM-NOI-1 is required, which would require the Program to implement certain noise reduction measures as site conditions warrant during construction. Potential barriers would be temporary. The Program does not propose introduction of shoreline protection devices where none are present already. Therefore, no impacts would occur.

7.2.8.5 Light and Glare

The Program would not shed substantial light onto adjacent, light-sensitive property or land use, or would emit a substantial amount of ambient light into the nighttime sky. Sustainable lighting improvements are proposed as part of the Bicycle and Pedestrian Improvements Element, however, the repair and addition of new lighting would be pursuant to the City of San Diego Municipal Code Section 142.0740 and would be directed away from sensitive uses. Therefore, no adverse impacts regarding light and glare would occur and impacts are less than significant.

7.3 UNAVOIDABLE, SIGNIFICANT ENVIRONMENTAL IMPACTS

In accordance with CEQA Guidelines Section 15126.2(c) any significant unavoidable impact of a project, including those impacts that can be mitigated but not reduced to below a level of significance, and where there are impacts that cannot be alleviated without imposing an alternative design, their implications and the reasons why that project is being proposed, notwithstanding their effect, should be described. Chapter 4 identifies significant unavoidable impacts related to biological resources, historical resources, and noise. Additionally, as these impacts result from activities that include recreation facilities significant and unavoidable recreation impacts are identified, for those same resource reasons (biological, historical, and noise). The unavoidable biological resources impacts areas a result of the construction activities and infeasibility avoiding impacts while sequencing implementation such that impacts to some resources to achieve restoration of another occurs before the entire Program is implemented, which would ultimately provide improved biological resources. Noise impacts are unavoidable during construction activities due to the proximity of sensitive receptors in the instance of the Restoration of Seawall Bulkhead, however restoration is necessary to restore integrity of the seawall. For similar reasons historic resources impacts, which are specific to the historic seawall, would result from the necessary restoration of the seawall to provide for integrity of the utility of the infrastructure.

All other potentially significant impacts identified in Chapter 4, Environmental Impact Analysis, of this PEIR can be reduced to below a level of significance with implementation of the mitigation framework identified in Chapter 4, as well as through compliance with the General Plan and applicable federal, state, and/or local regulations.

7.4 SIGNIFICANT, IRREVERSIBLE ENVIRONMENTAL CHANGES

In accordance with CEQA Guidelines Section 15126.2(d):

> Uses of nonrenewable resources during the initial and continued phases of the project may be irreversible since a large commitment of such resources makes removal or nonuse thereafter unlikely. Primary impacts and, particularly, secondary impacts (such as highway improvement which provides access to a previously inaccessible area)

> generally commit future generations to similar uses. Also, irreversible damage can result from environmental accidents associated with the project. Irretrievable commitments of resources should be evaluated to assure that such current consumption is justified.

In the case of the Program, significant, irreversible environmental changes are discussed below in Sections 7.4.1 through 7.4.3.

7.4.1 IMPACTS RELALTED TO NON-RENEWABLE RESOURCES

Implementation of the Program would not result in significant irreversible impacts on biological habitat, agricultural land, forestry resources, mineral deposits, water bodies, and energy resources. As discussed in Section 7.2 of this Program EIR, implementation of the Program would not have an impact on agricultural, forestry, or mineral resources.

Although sensitive biological resources are identified within the Program area, direct and indirect impacts would be offset through compliance with CPU policies and the City's Multiple Species Conservation Program Subarea Plan, Vernal Pool Habitat Conservation Plan, and Environmentally Sensitive Lands Regulations of the City's Land Development Code. Water bodies in the Program area include Mission Bay and the San Diego River. As discussed in Section 4.8, Hydrology and Water Quality, implementation of the Program would have a beneficial impact on these water bodies.

Implementation of the Program would require the commitment of energy and non-renewable resources, such as electricity, fossil fuels, natural gas, construction materials (e.g., concrete, asphalt, sand, and gravel), potable water, and labor during construction. The demand for these resources would occur during construction only, as operation of the Program would require typical maintenance activities, similar to those activities that are already performed to operate and maintain the Improvement Zone, and therefore would represent a substantial increase over the current demand. However, use of these resources on any level would have an incremental effect regionally and would, therefore, result in long-term irretrievable losses of non-renewable resources, such as fuel and energy. Energy consumption is discussed in greater detail in Section 4.3, Energy, of this Program EIR.

As detailed in Section 4.6, Historical Resources, one component of the Bicycle and Pedestrian Improvements Element, the Rose Creek Bike Path Improvement component, would bisect an archaeological resource. Potentially significant impacts to archaeological resources would be mitigated through monitoring and potential data recovery (MM-CUL-1). Impacts to built environment historic resources, archaeological resources, and human remains would be less than significant with mitigation.

As detailed in Sections 4.6 and 4.12, potential for presence of Tribal Cultural resources has been identified in the vicinity of the Mission Beach seawall and potential impacts to these resources could result from

construction activities associated with the Restoration of Seawall Bulkhead Element. MM-CUL-1 would require construction monitoring for ground-disturbing construction activities for the Restoration of Seawall Bulkhead Element. MM-CUL-1 would reduce the potential impact to less than significant.

7.4.2 IMPACTS RELATED TO ACCESS TO PREVIOUSLY INACCESSIBLE AREAS

The Program area is accessible via regional transportation facilities (e.g., I-5 and I-8). No new freeways or public roadways are proposed that would provide access to currently inaccessible areas. The Program includes a maintenance vehicle access road that would provide access to the North Fiesta Island Least Tern Preserve Area, while this road would provide a new access point for vehicles, it would not provide public access and the area was previously accessible to parks staff for maintenance. Additionally, the Program includes improvements to pedestrian and bicycle facilities that would increase accessibility and connectivity, but such facilities would not connect areas that are not currently inaccessible. The Program proposes two bridges, one bridge would connect the Least Tern Preserve to Fiesta Island Road across the western end of the new tidal channel for maintenance access only, and one bridge would cross the eastern end of the new tidal channel along the east side of Fiesta Island Road and would afford public access. Access would be limited compared to current conditions on North Fiesta Island as part of the North Fiesta Island Wetland component and the Upland Habitat and Preserve Expansion Element. Therefore, implementation of the Program would not result in a significant irreversible impact with regard to access to previously inaccessible areas.

7.4.3 IMPACTS REALTED TO ENVIRONMENTAL ACCIDENTS

With respect to environmental accidents, and as further discussed in Section 4.7, Health and Safety, potential impacts related to hazardous materials and associated health hazards from implementation of the Program would be avoided or reduced to below a level of significance through mandatory conformance with applicable regulations, standards laid out in the City's "Whitebook", and industry standards and codes, as well as through implementation of EP-SW-1. The potential for wildfire hazards exists throughout the Program Area, as some areas are classified as Very High Fire Hazard Severity Zone. However, implementation of the Program would be subject to applicable state and City regulations related to fire hazards and prevention and brush management. Accidents related to flood hazards would be less than significant because all development would be subject to the drainage and floodplain regulations in the San Diego Municipal Code and would be required to adhere to the City's Drainage Design Manual and Stormwater Standards Manual.

8 REFERENCES AND LIST OF PREPARERS

8.1 REFERENCES

CalEMA (California Emergency Management Agency), California Geological Survey, and the University of Southern California. 2009. "Tsunami Inundation Map for Emergency Planning, San Diego Bay," Scale 1:24,000.

CAL FIRE (California Department of Forestry and Fire Protection). 2024. Fire Hazard Severity Viewer. Accessed November 2024. https://experience.arcgis.com/experience/03beab8511814e79a0e4eabf0d3e7247/.

California Division of Boating and Waterways. 2025. "Sand Compatibility and Opportunistic Use Program (SCOUP)." Accessed December 2025. https://dbw.parks.ca.gov/?page_id=29355.

California Public Resources Code, Sections 3000–30900: California Coastal Act. 2025. Accessed December 2, 2024. https://www.coastal.ca.gov/coastact.pdf.

Caltrans (California Department of Transportation). 2013. *Technical Noise Supplement to the Traffic Noise Analysis Protocol*. September 2013.

Caltrans. 2020. *Transportation and Construction Vibration Guidance Manual: 2020 Update*. April 2020. https://dot.ca.gov/programs/environmental-analysis/noise-vibration/guidance-manuals.

Caltrans (California Department of Transportation). 2025. "California State Scenic Highway System Map." Accessed January 22, 2025. https://caltrans.maps.arcgis.com/apps/webappviewer/index.html?id=465dfd3d807c46cc8e8057116f1aacaa.

CARB (California Air Resources Board). 2000. *Risk Reduction Plan to Reduce Particulate Matter Emissions from Diesel-Fueled Engines and Vehicles*. October 2000. Accessed August 2016. http://www.arb.ca.gov/diesel/documents/rrpfinal.pdf.

CARB. 2005. *Air Quality and Land Use Handbook: A Community Health Perspective*. April 2005. Accessed August 2016. https://sfmohcd.org/sites/default/files/20%20-%20CARB%2C%20Air%20Quality%20and%20Land%20Use%20Handbook%202005.pdf.

CARB. 2008. *Climate Change Scoping Plan: A Framework for Change*. December 2008. http://ww3.arb.ca.gov/cc/scopingplan/document/scopingplandocument.htm.

CARB. 2014. *First Update to the Climate Change Scoping Plan: Building on the Framework*. May 2014. https://ww3.arb.ca.gov/cc/scopingplan/document/updatedscopingplan2013.htm.

CARB. 2017. *The 2017 Climate Change Scoping Plan Update: The Proposed Strategy for Achieving California's 2030 Greenhouse Gas Target*. January 20, 2017. https://ww3.arb.ca.gov/cc/scopingplan/2030sp_pp_final.pdf.

CARB. 2022. *2022 Scoping Plan for Achieving Carbon Neutrality*. November 16, 2022. https://ww2.arb.ca.gov/sites/default/files/2022-12/2022-sp_1.pdf.

CARB. 2024. "Table of Ambient Air Quality Standards." July 2024. ww2.arb.ca.gov/sites/default/files/2024-08/AAQS%20Table_ADA_FINAL_07222024.pdf.

CARB. 2025a. "Glossary of Air Pollutant Terms". Accessed April 2025. https://ww2.arb.ca.gov/glossary.

CARB. 2025b. "Overview: Diesel Exhaust and Health." Accessed April 2025. https://www.arb.ca.gov/research/diesel/diesel-health.htm.

CARB. 2025c. "Ambient Air Quality Data – Top 4 Summary." [digital CARB data]. iADAM: Air Quality Data Statistics. Accessed February 2025. http://www.arb.ca.gov/adam/topfour/topfour1.php.

CCC (California Coastal Commission). 1994. *Procedural Guidance for the Review of Wetland Projects in California's Coastal Zone*. June 15, 1994. https://repository.library.noaa.gov/view/noaa/10684.

CCC. 2021. *Modifications to the Fiesta Island Mission Bay Park Master Plan Amendment*.

CDFG (California Department of Fish and Game). 2012. *Staff Report on Burrowing Owl Mitigation*. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=83843&inline=true.

CDFW (California Department of Fish and Wildlife). 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.

CDFW. 2023. *Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species*. June 6, 2023. https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=213150&inline.

CDFW. 2024. California Natural Diversity Database (CNDDB). RareFind Version 5.0 (Commercial Subscription). Sacramento, California: CDFW, Biogeographic Data Branch. Accessed December 2024. https://www.wildlife.ca.gov/Data/CNDDB/Maps-and-Data.

CEC (California Energy Commission). 2025a. "Electricity Consumption by County." https://tableau.cnra.ca.gov/t/CNRA_CEC_PUBLIC/views/CaliforniaElectricityConsumption_17347219510120/ElectricityConsumption?%3Aembed=y&%3AisGuestRedirectFromVizportal=y.

CEC. 2025b. "Natural Gas Consumption by County." https://tableau.cnra.ca.gov/t/CNRA_CEC_PUBLIC/views/CaliforniaNaturalGasConsumptionDashboard_17347218630300/NaturalGasConsumption?%3Aembed=y&%3AisGuestRedirectFromVizportal=y.

CGS. 2002. "Note 32: How Earthquakes and Their Effects are Measured." Revised April 2002. https://www.conservation.ca.gov/cgs/Documents/Publications/CGS-Notes/CGS-Note-32.pdf.

CGS (California Geological Survey). 2018. Earthquake Fault Zones: A Guide for Government Agencies, Property Owners/Developers, and Geoscience Practitioners for Assessing Fault Rupture Hazards in California. Special Publication 42; Revised 2018. Sacramento: CGS. https://www.conservation.ca.gov/cgs/sh/sp42.

CGS. 2025. Earthquake Zones of Required Investigation. Accessed December 8, 2025. https://maps.conservation.ca.gov/cgs/informationwarehouse/eqzapp/.

City of San Diego. 1990. *Mission Bay Park Natural Resource Management Plan*. San Diego: Development and Environmental Planning Department, City of San Diego. May 1990. Accessed January 2025. http://www.sandiego.gov/park-and-recreation/pdf/parkdesign/mbnaturalresourcesmgmtplan.pdf.

City of San Diego. 1994. *Mission Bay Park Master Plan Update Environmental Impact Report*.

City of San Diego. 1997. *Multiple Species Conservation Program: City of San Diego MSCP Subarea Plan*. Prepared for the Multiple Species Conservation Program by the City of San Diego Community and Economic Development Department. March 1997.

City of San Diego. 2006. City Charter Article V. January 1, 2006. https://docs.sandiego.gov/citycharter/Article%20V.pdf.

City of San Diego. 2008. *Seismic Safety Study*. Geologic Hazards and Faults Maps, Grids 26 and 31, Scale 1: 800.

City of San Diego. 2015. *Ocean Beach Community Plan and Local Coastal Program*. City of San Diego Planning Department. November 9, 2015. https://www.sandiego.gov/planning/community-plans/ocean-beach.

City of San Diego. 2017. *Mission Beach Precise Plan and Local Coastal Program Addendum*. Adopted July 11, 1974; amended June 26, 2017. https://www.sandiego.gov/planning/community-plans/mission-beach.

City of San Diego. 2018a. *The City of San Diego Guidelines for Geotechnical Reports*. Accessed December 2024. https://www.sandiego.gov/sites/default/files/legacy/development-services/pdf/industry/geoguidelines.pdf.

City of San Diego. 2018b. "Mission Bay History." Accessed November 2024. https://www.sandiego.gov/park-and-recreation/parks/regional/missionbay/history.

City of San Diego 2018c. San Diego Municipal Code, Land Development Code—Biology Guidelines. Amended February 1, 2018, by Resolution No. R-311507. Adopted September 28, 1999.

City of San Diego. 2019a. "Mission Bay Park." Parks & Recreation: Regional and Open Space Parks. City of San Diego website. Accessed June 24, 2019. www.sandiego.gov/park-and-recreation/parks/regional/missionbay.

City of San Diego. 2019b. *Pacific Beach Community Plan and Local Coastal Program Land Use Plan*. City of San Diego Planning Department. Adopted February 28, 1995; amended August 1, 2019. https://www.sandiego.gov/planning/community-plans/pacific-beach.

City of San Diego. 2021a. The "WHITEBOOK": Standard Specifications for Public Works Construction. Accessed February 2025. https://www.sandiego.gov/sites/default/files/the_whitebook_2021_edition.pdf.

City of San Diego. 2021b. City of San Diego Land Development Code. December 2021. Accessed August 2025. https://www.sandiego.gov/planning/programs/landdevcode/landdevmanual.

City of San Diego. 2021c. City of San Diego Environmentally Sensitive Lands Regulations. 2021. Accessed August 2025. https://docs.sandiego.gov/municode/MuniCodeChapter14/Ch14Art03Division01.pdf.

City of San Diego. 2021d. *Parks Master Plan*. August 2021. https://www.sandiego.gov/sites/default/files/parks-master-plan-adopted-2021.pdf.

City of San Diego. 2022a. *California Environmental Quality Act Significance Determination Thresholds*. September 2022. Accessed April 2023. https://www.sandiego.gov/sites/default/files/september_2022_ceqa_thresholds_final.pdf.

City of San Diego. 2022b. *2022 Climate Action Plan Update*. August 2, 2022. Accessed May 2025. https://www.sandiego.gov/sustainability/climate-action-plan.

City of San Diego. 2022c. "Climate Action Plan Consistency for Plan- and Policy-Level Environmental Documents and Public Infrastructure Projects." Memorandum. June 17, 2022. Accessed May 2025. https://www.sandiego.gov/sites/default/files/memorandum_cap_consistency_for_plans_policies_and_public_infrastructure_projects.pdf.

City of San Diego. 2022d. *Transportation Study Manual (TSM).* September 19, 2022. https://www.sandiego.gov/sites/default/files/10-transportation-study-manual.pdf.

City of San Diego. 2023. *Multi-Jurisdictional Hazard Mitigation Plan: City of San Diego Annex*. Accessed November 2024. https://www.sandiegocounty.gov/content/dam/sdc/oes/emergency_management/HazMit/2023/2023%20City%20of%20San%20Diego%20Haz%20Mit%20Annex_Final%20.pdf.

City of San Diego. 2024a. *Mission Bay Park Master Plan*. Adopted August 2, 1994. Amended May 2024. https://www.sandiego.gov/sites/default/files/ mission_bay_park_master_plan_2023.pdf.

City of San Diego. 2024b. *City of San Diego General Plan*. March 10, 2008; updated in July 2024. Accessed April 2025. https://www.sandiego.gov/planning/work/general-plan#2024GenPlan.

City of San Diego. 2024c. *Historical Resources Guidelines*. Appendix E in *San Diego Municipal Code, Land Development Manual*. Amended July 30, 2024, by Resolution No. R-315734. Accessed December 2024. historical-resources-guidelines.pdf.

City of San Diego. 2024d. "Very High Fire Hazard Severity Zone Map." Accessed November 2024. https://www.sandiego.gov/fire/services/brush/severityzones.

City of San Diego. 2024e. "Reservoir Dams." Accessed January 30, 2025. https://www.sandiego.gov/reservoirs-lakes/reservoir-dams.

City of San Diego. 2024f. *City of San Diego Stormwater Standards Manual*. Updated August 15, 2024. https://www.sandiego.gov/sites/default/files/2024-08/sws_manual_august_2024_update.pdf.

City of San Diego. 2024g. *Climate Resilient SD*. City of San Diego Planning Department. https://www.sandiego.gov/climate-resilient-sd/plan.

City of San Diego. 2024h. *Blueprint SD Initiative, Hillcrest Focused Plan Amendment, and University Community Plan Update Program EIR, San Diego, California*. SCH No. 2021070359. July 11, 2024. https://www.sandiego.gov/planning/community-plans/updates/university.

City of San Diego 2024i. City of San Diego Zoning and Parcel Information Portal (ZAPP). Accessed November 26, 2024. https://sandiego.maps.arcgis.com/apps/instant/sidebar/index.html?appid=75f6a5d68aee481f8ff48240bcaa1239.

City of San Diego. 2025. San Diego Municipal Code, Chapter 14: General Regulations. Accessed June 6, 2025. https://docs.sandiego.gov/municode/MuniCodeChapter14/Ch14Art02Division01.pdf.

CNPS (California Native Plant Society). 2025. *Inventory of Rare, Threatened, and Endangered Plants of California.* Online edition, version 8-030.39. Sacramento: CNPS, Rare Plant Program. Accessed December 2024. http://www.rareplants.cnps.org.

CNRA (California Natural Resources Agency). 2009. *Final Statement of Reasons for Regulatory Action: Amendments to the State CEQA Guidelines Addressing Analysis and Mitigation of Greenhouse Gas Emissions Pursuant to SB97*. December 2009. http://resources.ca.gov/ceqa/docs/Final_Statement_of_Reasons.pdf.

County of San Diego. 1998. "Final Multiple Species Conservation Program–MSCP Plan."

County of San Diego. 2023a. *San Diego County Multi-Jurisdictional Hazard Mitigation Plan*. https://www.sandiegocounty.gov/content/sdc/oes/emergency_management/oes_jl_mitplan.html.

County of San Diego. 2023b. *Operation Area Emergency Operations Plan*. Accessed November 2024. https://www.sandiegocounty.gov/content/dam/sdc/oes/emergency_management/plans/op-area-plan/2023-eop/EOP2023_Complete%20Plan.pdf.

CPUC (California Public Utilities Commission). 2025. "Natural Gas and California." http://www.cpuc.ca.gov/natural_gas/.

DOC (California Department of Conservation). 2024a. "Tsunami Hazard Area Map." Accessed January 30, 2025. https://maps.conservation.ca.gov/cgs/informationwarehouse/ts_evacuation/?extent=-13120898.3979%2C3823813.9252%2C-12994012.9309%2C3963846.561%2C102100&utm_source=cgs+active&utm_content=sandiego#data_s=id%3AdataSource_3-1918f9f263a-layer-15%3A26.

DOC. 2024b. California Important Farmland Finder. Accessed November 26, 2024. https://maps.conservation.ca.gov/DLRP/CIFF/.

DOC. 2024c. California Williamson Act Enrollment Finder. Accessed November 26, 2024. https://maps.conservation.ca.gov/dlrp/WilliamsonAct/App/index.html.

DOT (U.S. Department of Transportation). 2006. *FHWA Roadway Construction Noise Model: User's Guide*. Final. FHWA-HEP-06-015. DOT-VNTSC-FHWA-06-02. Cambridge, Massachusetts: DOT, Research and Innovative Technology Administration, Federal Highway Administration. Final Report. August 2006.

DTSC (California Department of Toxic Substances Control). 2024. Site Information Summary – RAD Station L-6 MIS BCH (80000424). Accessed November 2024. https://www.envirostor.dtsc.ca.gov/public/profile_report?global_id=80000424.

DWR (California Department of Water Resources). 2025a. California Dam Breach Inundation Maps. Accessed March 27, 2025. https://fmds.water.ca.gov/webgis/?appid=dam_prototype_v2.

DWR. 2025b. "SGMA Basin Prioritization Map." Accessed August 26, 2025. https://gis.water.ca.gov/app/bp-dashboard/final/.

EIA (U.S. Energy Information Administration). 2025a. "California State Energy Profile." Last updated May 15, 2025. https://www.eia.gov/state/print.php?sid=CA.

EIA. 2025b. "Natural Gas Consumption by End Use." Last updated April 30, 2025. https://www.eia.gov/dnav/ng/ng_cons_sum_a_EPG0_VC0_mmcf_a.htm.

EIA. 2025c. "Total Petroleum Consumption Estimates, 2023." https://www.eia.gov/state/seds/data.php?incfile=/state/seds/sep_fuel/html/fuel_use_pa.html&sid=US&sid=CA.

EPA (U.S. Environmental Protection Agency). 2013. *Integrated Science Assessment of Ozone and Related Photochemical Oxidants*. U.S. EPA, EPA/600R-10/076F, 2013.

EPA. 2024a. "Overview for Renewable Fuel Standard." Last updated January 23, 2024. https://www.epa.gov/renewable-fuel-standard-program/overview-renewable-fuel-standard.

EPA. 2024b. "Basics of Climate Change." Last updated November 7, 2024. Accessed May 2025. https://www.epa.gov/climatechange-science/basics-climate-change.

EPA. 2025. "Criteria Air Pollutants." Accessed April 2025. https://www.epa.gov/criteria-air-pollutants.

FEMA (Federal Emergency Management Agency). 2019. FEMA's National Flood Hazard Layer (NFHL) Viewer. December 2019. Accessed November 25, 2024. https://hazards-fema.maps.arcgis.com/apps/webappviewer/index.html?id=8b0adb51996444d4879338b5529

aa9cd&extent=-117.26179650476661,32.7587061271259,-117.22025445154398,32.77674927389557.

FEMA. 2020a. "Flood Zones." FEMA online glossary. Last updated July 8, 2020. Accessed November 25, 2024. https://www.fema.gov/about/glossary/flood-zones.

FEMA. 2020b. "No-Rise Certification for Floodways." July 8, 2020. Accessed June 12, 2025. https://www.fema.gov/about/glossary/no-rise-certification-floodways.

FEMA. 2022. "Zone VE and V1-30." Last updated June 22, 2022. Accessed November 21, 2025. https://www.fema.gov/about/glossary/zone-ve-and-v1-30.

FEMA. 2024. "Regulatory Floodway." Accessed November 25, 2024. https://emilms.fema.gov/is_0274/groups/76.html.

FHWA. 2008. *Roadway Construction Noise Model (RCNM)*, Software Version 1.1. Washington, DC: U.S. Department of Transportation, Research and Innovative Technology Administration, John A. Volpe National Transportation Systems Center, Environmental Measurement and Modeling Division. December 8, 2008.

Freeman, P. 2025. "Abandoned and Little-Known Airfields: California – Southern San Diego Area." Accessed April 2025. https://www.airfields-freeman.com/CA/Airfields_CA_SanDiego_S.htm#peik.

FTA (Federal Transit Administration). 2018. *Transit Noise and Vibration Impact Assessment Manual*. FTA Report No. 0123. Prepared by John A. Volpe National Transportation Systems Center. September 2018.

Harris & Associates. 2023. *Biological Resources Technical Report for the De Anza Natural Amendment to the Mission Bay Park Master Plan*. November 2023. https://www.sandiego.gov/sites/default/files/2023-11/D_BRTR_compressed.pdf.

Holland, R.F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California.* California Department of Fish and Game, Nongame-Heritage Program. October 1986.

IPCC (Intergovernmental Panel on Climate Change). 2014. *Climate Change 2014 Synthesis Report: A Report of the Intergovernmental Panel on Climate Change*. Contribution of Working Groups I, II and III to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change. http://www.ipcc.ch/report/ar5/syr/.

Jackson, J. 2022. "The 2022 California Least Tern (*Sterna antillarum browni*) Breeding Season in Mission Bay."

M&A (Merkel & Associates). 2017. *Hydroacoustic Analysis in Support of the Mission Bay Master Plan Update – Fiesta Island Amendment Project*. Prepared for Placeworks and Alden Environmental, Inc. Prepared by Merkel & Associates Inc. October 2, 2017.

NOAA (National Oceanic and Atmospheric Administration). 2014. *National Marine Fisheries Service's California Eelgrass Mitigation Policy and Implementing Guidelines*. NOAA Fisheries, West Coast Region. October 2014.

NOAA. 2024. "What is a Watershed?" Accessed November 25, 2024. https://oceanservice.noaa.gov/facts/watershed.html.

NOAA. 2025. EFH Mapper. NOAA Fisheries, Habitat Conservation, Essential Fish Habitat. NOAA Fisheries. Accessed June 2025. https://www.habitat.noaa.gov/apps/efhmapper/.

NPS (National Parks Service). 1990. *How to Apply the National Register Criteria*. NRB 15. Accessed December 2024. https://www.nps.gov/subjects/nationalregister/upload/NRB-15_web508.pdf.

NPS. 2023. The Secretary of the Interior's Standards for the Treatment of Historic Properties: Restoration as a Treatment and Standards for Restoration. Last updated July 2023. Accessed December 2025. https://www.nps.gov/articles/000/treatment-standards-restoration.htm

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County*. March 2008.

OEHHA (Office of Environmental Health Hazard Assessment). 2015. *Air Toxics Hot Spots Program Risk Assessment Guidelines: The Air Toxics Hot Spots Program Guidance Manual for Preparation of Health Risk Assessments*. California Environmental Protection Agency, OEHHA. February 2015. Accessed April 3, 2018. http://oehha.ca.gov/air/hot_spots/2015/2015GuidanceManual.pdf.

PFMC (Pacific Fishery Management Council). 2024a. *Coastal Pelagic Species Fishery Management Plan, as Amended Through Amendment 21*. Submitted by the PFMC in conjunction with NOAA. April 2024. Accessed June 2025. https://www.pcouncil.org/documents/2024/07/cps-fmp-as-amended-through-amendment-21-may-2024.pdf/.

PFMC. 2024b. *Pacific Coast Groundfish Fishery Management Plan for the California, Oregon, and Washington Groundfish Fishery*. Submitted by the PFMC in conjunction with NOAA. December

2024. Accessed June 2025. https://www.pcouncil.org/documents/2022/08/pacific-coast-groundfish-fishery-management-plan.pdf/.

Project Clean Water. 2024a. "Mission Bay Overview." Accessed December 2, 2024. https://projectcleanwater.org/watersheds/mission-bay-la-jolla-wma/.

Project Clean Water. 2024b. "San Diego River Overview." Accessed December 2, 2024. https://projectcleanwater.org/watersheds/san-diego-river-wma/.

RWQCB (Regional Water Quality Control Board). 2021. *Water Quality Control Plan for the San Diego Basin*. September 1, 2021. https://www.waterboards.ca.gov/sandiego/water_issues/programs/basin_plan/.

SANDAG (San Diego Association of Governments). 2012. SanGIS Interactive Map. "Vegetation (Western SD 2012)" layer. *Vegetation Classification Manual for Western San Diego County*, first edition. https://www.sangis.org/pages/interactive-map.

SANDAG. 2021a. *2021 Regional Plan*. Adopted December 10, 2021. https://www.sandag.org/regional-plan/2021-regional-plan/final-2021-regional-plan.

SANDAG. 2021b. "Regional Growth Forecast and Sustainable Communities Strategy Land Use Pattern." Appendix F in *2021 Regional Plan*. Accessed April 2025. https://www.sandag.org/regional-plan/2021-regional-plan/-/media/F2C8D0E8C56844B6B44CAC3AA42EE66F.ashx.

SANDAG. 2025. *2025 Regional Plan*. Draft. May 2025. https://www.sandag.org/~/link.aspx?_id=D02CF20C6F2A4325BE67260747338FBC&_z=z.

San Diego County Regional Airport Authority. 2025. *San Diego International Airport Land Use Compatibility Plan*. February 13, 2025. Accessed December 2025. https://www.san.org/wp-content/uploads/2025/08/SDIA-ALUCP.pdf .

SBCAPCD (Santa Barbara County Air Pollution Control District). 2002. *Piston IC Engine Technical Reference Document*. November 1, 2022. https://www.ourair.org/wp-content/uploads/sbcapcdicerefdoc.pdf.

SCAQMD (South Coast Air Quality Management District). 1993. *CEQA Air Quality Handbook*.

SCS Engineers. 2006. *Environmental Site Assessment of the Mission Bay Landfill*. Accessed November 2024.

SDAPCD (San Diego Air Pollution Control District). 1969. Rules and Regulations. Regulation IV. Prohibitions. Rule 51. Nuisance. Effective January 1, 1969.

SDAPCD. 1997. Rules and Regulations. Regulation IV. Prohibitions. Rule 50. Visible Emissions. Effective August 13, 1997. Accessed June 2017. http://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R50.pdf.

SDAPCD. 2005. *Measures to Reduce Particulate Matter in San Diego County*. December 2005. Accessed October 2017. https://www.sandiegocounty.gov/content/dam/sdc/pds/ceqa/JVR/AdminRecord/IncorporatedByReference/Section-2-2---Air-Quality-References/SDAPCD%202005.pdf.

SDAPCD. 2009. SDAPCD Regulation IV: Prohibitions; Rule 55: Fugitive Dust. June 24, 2009. Accessed October 2017. http://www.sandiegocounty.gov/content/dam/sdc/apcd/PDF/Rules_and_Regulations/Prohibitions/APCD_R55.pdf.

SDAPCD. 2015. 5-Year Air Quality Monitoring Network Assessment 2015. July 2015. Accessed December 2017. https://www.sdapcd.org/content/dam/sdapcd/documents/monitoring/2015-Network-Assessment.pdf.

SDAPCD. 2016a. *2008 Eight-Hour Ozone Attainment Plan for San Diego County*. Updated December 2016. http://www.sdapcd.org/content/dam/sdc/apcd/PDF/Air%20Quality %20Planning/8-Hr-O3%20Attain%20Plan-08%20Std.pdf.

SDAPCD. 2016b. SDAPCD Regulation II: Permits; Rule 20.2: New Source Review—Non-Major Sources. January 29, 2016. Accessed October 2017. https://www.sdapcd.org/content/dam/sdapcd/documents/rules/current-rules/Rule-20.2.pdf.

SDAPCD. 2020a. 2020 Plan for Attaining the National Ambient Air Quality Standards for Ozone in San Diego County. October 2020. Accessed January 2024. https://www.sdapcd.org/content/dam/sdapcd/documents/grants/planning/Att%20A%20(Attainment%20Plan)_ws.pdf.

SDAPCD. 2020b. Rule 20.2 New Source Review Non-Major Stationary Sources. Rev. Adopted June 26, 2019, Effective October 16, 2020.

SDAPCD. 2021. Rule 67.0.1 Architectural Coatings. Rev. Adopted February 10, 2021, Effective January 1, 2022.

SDAPCD. 2022. "Supplemental Guidelines for Submission of Air Toxics 'Hot Spots' Program Health Risk Assessments (HRAs)." July 2022. Accessed April 2025. https://www.sdapcd.org/content/dam/sdapcd/documents/permits/air-toxics/Hot-Spots-Guidelines.pdf.

SDAPCD. 2023. *2022 Regional Air Quality Strategy (RAQS)*. March 9, 2023. Accessed January 2024. https://www.sdapcd.org/content/dam/sdapcd/documents/grants/planning/Att.%20A%20-%202022%20RAQS.pdf.

SDAPCD. 2024. "Attainment Status." Accessed January 2024. https://www.sdapcd.org/content/sdapcd/planning/attainment-status.html.

SDG&E (San Diego Gas and Electric). 2020. *2020 Individual Integrated Resource Plan of San Diego Gas & Electric Company*. https://www.sdge.com/rates-and-regulations/proceedings/2020-individual-integrated-resource-plan.

SDG&E. 2024. "2023 Power Content Label." December 2024. https://www.sdge.com/sites/default/files/documents/2024-12/FINAL_S2410024_PCL_Dec24_REV.pdf.

SDG&E. 2025. "Our Company." https://www.sdge.com/more-information/our-company/about-us.

SDNHM (San Diego Natural History Museum). 2025. "San Diego County Plant Atlas." 2008–2024. https://www.sdplantatlas.org/.

SDUSD (San Diego Unified School District). 2024. "About Us." Accessed November 2024. https://www.sandiegounified.org/about/about_s_d_u_s_d/about_us.

SWRCB (State Water Resources Control Board). 2021. State Policy for Water Quality Control: State Wetland Definition and Procedures for Discharges of Dredge or Fill Material to Waters of the State. Adopted April 2, 2019. Revised April 6, 2021. https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/2021/procedures.pdf.

SWRCB. 2022. California 2020–2022 Integrated Report (303(d) List/305(b) Report), Appendix A: Proposed Final 2020–2022 303(d) List. Approved May 11, 2022. https://view.officeapps.live.com/op/view.aspx?src=https%3A%2F%2Fwww.waterboards.ca.gov%2Fwater_issues%2Fprograms%2Ftmdl%2F2020_2022state_ir_reports_revised_final%2Fapx-a-303d-list.xlsx&wdOrigin=BROWSELINK.

SWRCB. 2024a. GeoTracker Site Summary for Mission Bay Landfill (L10005852203). Accessed November 2024. https://geotracker.waterboards.ca.gov/profile_report.asp?global_id=L10005852203.

SWRCB. 2024b. "2020–2022 California Integrated Report Map." Accessed November 25, 2024. https://gispublic.waterboards.ca.gov/portal/apps/webappviewer/index.html?id=6cca2a3a18154655992012663 73cbb7b.

The Climate Registry. 2025. "Default Emission Factors." February 2025. https://theclimateregistry.org/wp-content/uploads/2025/03/2025-Default-Emission-Factors-Update-3.pdf.

USFWS. 1997. "Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Guidelines." February 28. Accessed June 2023. https://www.fws.gov/sites/default/files/documents/survey-protocol-for-coastal-california-gnatcatcher.pdf.

USFWS. 2001. "Least Bell's Vireo Survey Guidelines." January 19, 2001.

USFWS. 2011. *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants*. https://www.fws.gov/media/guidelines-conducting-and-reporting-botanical-inventories-federally-listed-proposed-and.

USGS (United States Geological Survey). 2025. "Earthquake Hazards Program, Northridge Earthquake, M 6.7 -1km NNW of Reseda, CA." Accessed March 26, 2025. https://earthquake.usgs.gov/earthquakes/eventpage/ci3144585/impact.

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9 MITIGATION MONITORING AND REPORTING PROGRAM

California Environmental Quality Act (CEQA), Section 21081.6, requires that a mitigation monitoring and reporting program (MMRP) be established upon certification of an Environmental Impact Report. It stipulates that "the public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval, adopted in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation" (California Public Resources Code, Section 21000 et seq.).

This MMRP has been developed in compliance with Section 21081.6 of CEQA and identifies (1) project environmental protocols to reduce the potential for environmental effects; (2) mitigation measures to be implemented prior to, during, and after construction of the Mission Bay Park Improvements Program (Program; proposed Program); (3) the individual/agency responsible for that implementation; and (4) criteria for completion or monitoring of the specific measures.

9.1 MITIGATION, MONITORING AND REPORTING PROGRAM

A. **GENERAL REQUIREMENTS—PART I – Plan Check Phase (prior to permit issuance)**

1. Prior to the issuance of a Notice To Proceed (NTP) for a construction contract award, or any permits, such as Demolition, Grading or Building, or beginning any construction related activity on-site, the Engineering and Capital Projects Department (ECP) Environmental Designee (ED) shall review and approve all Construction Documents (CD), (plans, specification, details, etc.) to ensure the MMRP requirements are incorporated into the design.
2. In addition, the ED shall verify that the MMRP Conditions/Notes that apply ONLY to the construction phases of these individual projects are included VERBATIM, under the heading, "ENVIRONMENTAL/MITIGATION REQUIREMENTS."
3. These notes must be shown within the first three (3) sheets of the construction documents in the format specified for engineering construction document templates as shown on the City website: http://www.sandiego.gov/development-services/industry/standtemp.shtml.
4. The TITLE INDEX SHEET must also show on which pages the "Environmental/Mitigation Requirements" notes are provided.

B. **GENERAL REQUIREMENTS—Part II – Post-Plan Check (after permit issuance/prior to start of construction)**

PRE-CONSTRUCTION MEETING IS REQUIRED TEN (10) WORKING DAYS PRIOR TO BEGINNING ANY WORK ON THIS PROJECT. The project contractor is responsible to arrange and perform this meeting by contacting the CITY RESIDENT ENGINEER (RE) of the Field Engineering Division and City ED. Attendees must also include the project contractor's

representative(s), Job Site Superintendent, and the following consultants, as appropriate for each given improvement project: ***Qualified Acoustician***

Qualified Archaeologists(s)

Qualified Native American Monitor(s)

Qualified Biologist(s)

NOTE: Failure of all responsible project contractor representatives and consultants to attend shall require an additional meeting with all parties present.

CONTACT INFORMATION:

a. The PRIMARY POINT OF CONTACT is the RE at the Construction Management and Field Engineering Division – 858.627.3200

b. For Clarification of ENVIRONMENTAL REQUIREMENTS, it is also required to call RE and MMC at 858.627.3360

1. **MMRP COMPLIANCE:** This Project shall conform to the mitigation requirements contained in the associated Environmental Document and implemented to the satisfaction of ECP's Environmental Designee (ED) and the City Engineer (RE). The requirements may not be reduced or changed but may be annotated (i.e., to explain when and how compliance is being met and location of verifying proof, etc.). Additional clarifying information may also be added to other relevant plan sheets and/or specifications as appropriate (i.e., specific locations, times of monitoring, methodology, etc.).

   NOTE: Permit Holder's Representatives must alert RE and ED if there are any discrepancies in the plans or notes, or any changes due to field conditions. All conflicts must be approved by RE and ED BEFORE the work is performed.

2. **OTHER AGENCY REQUIREMENTS:** Evidence of compliance with all other agency requirements or permits shall be submitted to the RE and ED for review and acceptance prior to the beginning of work or within one week of the project contractor obtaining documentation of those permits or requirements. Evidence shall include copies of permits, letters of resolution or other documentation issued by the responsible agency:

   - City Resolution approving Mission Bay Park Improvements Program Implementation Framework
   - City of San Diego: Site Development Permit(s)
   - California Coastal Commission: Coastal Development Permit(s)
   - U.S. Army Corp of Engineers: Clean Water Act Permit(s); Section 404, 33USC Section 1344
   - U.S. Army Corps of Engineers: Rivers and Harbors Section 10 Permit(s), Section 10, 33 USC Section 403
   - U.S. Army Corps of Engineers: Issue Record of Decision

- Magnuson-Stevens Fishery Conservation and Management Act, as amended 1996 (Public Law 104-267)
- State Historic Preservation Officer/Tribal Historic Preservation Office: National Historic Preservation Act of 1966 (NHPA), Section 106 Consultation with SHPO/THPO
- Endangered Species Act, 16 USC Sections 1531-1544 Section 7 Consultation with the federal lead agency
- California Department of Fish and Wildlife (CDFW): Streambed Alteration Agreement, Section 1602 of the California Fish and Game Code
- CDFW: California Endangered Species Act Section 2081 Incidental Take Permit,
- Regional Water Quality Control Board (RWQCB): Water Quality Certification under Section 401 of the Clean Water Act
- San Diego Air Pollution Control District (APCD): Authority to Construct/Permit to Operate for any dredge,
- City of San Diego: Dewatering Permit(s)

5. **MONITORING EXHIBITS** All consultants are required to submit, to RE and ED, a monitoring exhibit on a 11"x17" reduction of the appropriate construction plan, such as site plan, grading, landscape, etc., marked to clearly show the specific areas including the **LIMIT OF WORK**, scope of that discipline's work, and notes indicating when in the construction schedule that work will be performed. When necessary for clarification, a detailed methodology of how the work will be performed shall be included.
6. **OTHER SUBMITTALS AND INSPECTIONS:** The project contractor representative shall submit all required documentation, verification letters, and requests for all associated inspections to the RE and ED for approval per the following schedule:

Document Submittal/Inspection Checklist

Issue Area	Document Submittal	Associated Inspection/ Approvals/Notes
General	Consultant Qualification Letters	Prior to Preconstruction Meeting
General	Consultant Construction Monitoring Exhibits	Prior to or at Preconstruction Meeting
Biology	Biologist Limit of Work Verification Grading Plans	Limit of Work Inspection Grading Permit
Cultural/Tribal Cultural Resources	Cultural/Archaeology Reports	Archaeology/Historic Site Observation
Noise	Grading Plan Acoustical Reports	Grading Permit Issuance

C. SPECIFIC MMRP ISSUE AREA CONDITIONS/REQUIREMENTS

Air Quality

MM-AQ-1 **Construction Off-Road Equipment Exhaust Minimization.** Prior to the issuance of any construction or development permits or any construction contracts, the City of San Diego (City) Engineering & Capital Projects Department (ECP) or its designee shall ensure that all 50-horsepower or greater diesel-powered off-road construction equipment are powered with California Air Resources Board (CARB)-certified Tier 4 Final engines or better.

An exemption from this requirement may be granted by the City ECP if (1) the City ECP documents equipment with Tier 4 Final engines are not reasonably available, and (2) the required corresponding reductions in criteria air pollutant emissions can be achieved for the project from other combinations of construction equipment. Before an exemption may be granted, the City ECP shall (1) demonstrate that at least three construction fleet owners/operators in San Diego County were contacted and that those owners/operators confirmed Tier 4 Final equipment could not be located within San Diego County during the desired construction schedule, and (2) the City ECP shall provide evidence to Environmental Designee (ED) that the proposed replacement equipment has been evaluated using California Emissions Estimator Model (CalEEMod) or other industry standard emission estimation method, and documentation has been provided to MMC to confirm that necessary project-generated emissions reductions are achieved.

MM-AQ-2 **Construction Dust Control.** The City of San Diego Engineering & Capital Projects Department (ECP) or its designee shall provide evidence to ED that construction dust control practices beyond the requirements of San Diego Air Pollution Control District (SDAPCD) Rule 55, Fugitive Dust Control, would be employed to reduce fugitive dust emissions, including watering of the active sites three (3) times per day depending on weather conditions.

Biological Resources

MM-BIO-1 **Focused Biological Species Surveys.** Within 24 months prior to subsequent project level approval and as part of the project-specific environmental review pursuant to CEQA, focused surveys for future site-specific development shall be conducted, as applicable, in suitable habitat, in order to determine presence/absence of sensitive biological species within the proposed survey area. These surveys shall be in addition to suitable habitat/vegetation community mapping and jurisdictional aquatic resources delineation surveys conducted pursuant to EP-BIO-1. Focused surveys shall be conducted within suitable habitat according to the following protocols, or more

current agency-approved protocols at the time of the surveys. Individual protocols may require a survey(s) of the proposed development footprint plus a buffer. A survey report shall be prepared and include a map and description of the location and extent of observed sensitive species that would be impacted within the areas of potential effect for each project site. If significant impacts to these species are unavoidable, the impact to the species shall be reduced to a less than significant level through implementation of MM-BIO-2 (habitat-based mitigation), MM-BIO-3 (avoidance and minimization during construction), MM-BIO-4 (sensitive plant mitigation), MM-BIO-5 (eelgrass mitigation), and/or MM-BIO-8 (avoidance of listed species take).

MM-BIO-1A **Special-Status Plant Species.** A qualified botanist shall survey suitable habitat proposed to be impacted to determine presence/absence of special-status plant species. Surveys shall be conducted in accordance with CDFW (CDFW 2018) and the U.S. Fish and Wildlife Service (USFWS 2000). CDFW (2018) provides botanical field surveyor qualifications. Multiple surveys may be required and timed according to blooming periods of target species and reference checks to ensure detectability.

MM-BIO-1B **Coastal California Gnatcatcher (CAGN).** A biologist possessing a valid Endangered Species Act Section 10[a][1][a] Recovery Permit shall survey those suitable habitat areas within the MHPA that are proposed to be impacted (permanently or temporarily) to determine presence/absence of CAGN. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service (USFWS 2017).

MM-BIO-1C **Least Bell's Vireo (LBV).** A qualified biologist shall survey suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of LBV. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service (USFWS 2001).

MM-BIO-1D **California Least Tern and Western Snowy Plover (CLT/WSP).** A qualified biologist shall survey those suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of CLT and WSP. Surveys for this species shall be conducted pursuant to requirements established by the U.S. Fish and Wildlife Service and/or California Department of Fish and Wildlife.

MM-BIO-1E **Light-footed Ridgway's Rail and Belding's Savannah Sparrow (LFRR/BSS).** A biologist possessing a valid Endangered Species Act Section 10[a][1][a] Recovery Permit and state Scientific Collecting Permit and/or Memorandum of Understanding shall survey those suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of LFRR and/or BSS. Surveys for this species shall be conducted pursuant to the protocol survey guidelines

established by the U.S. Fish and Wildlife Service, and for BSS by California Department of Fish and Wildlife.

MM-BIO-1F **Western Burrowing Owl (BUOW).** A biologist possessing a valid state Scientific Collecting Permit and/or Memorandum of Understanding shall survey those suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of BUOW. Surveys for this species shall be conducted pursuant to the recommendations of CDFW (CDFW 2012).

MM-BIO-1G **Crotch's Bumble Bee.** A biologist possessing a valid state Scientific Collecting Permit and/or Memorandum of Understanding shall survey those suitable habitat areas that are proposed to be impacted (permanently or temporarily) to determine presence/absence of Crotch's bumble bee. Surveys for this species shall be conducted pursuant to the recommendations of CDFW (CDFW 2023).

MM-BIO-2 **Habitat-Based Mitigation** Habitat-based mitigation would be required for direct impacts to wetlands (see MM-BIO-2A) or sensitive uplands (see MM-BIO-2B).

MM-BIO-2A **Compensatory Wetlands Mitigation.** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, any direct impacts to wetlands, including jurisdictional aquatic resources, would require mitigation to comply with City of San Diego, state and/or federal authorizations, in accordance with the City of San Diego's Biology Guidelines (or the most current adopted guidelines at the time of review). Significant impacts to sensitive wetlands could occur from Program activities, including habitat restoration, construction staging, access and stockpiling, and infrastructure improvements including storm drain outfalls, bike and pedestrian paths, and seawalls. Mitigation required as part of any federal (Clean Water Act Section 404) or state (California Fish and Game Code Sections 1601 and 1603, California Coastal Act) permit shall supersede and shall not be in addition to any mitigation identified in the California Environmental Quality Act (CEQA) document for those wetland areas covered by any federal or state permits, consistent with the City's Biology Guidelines. Mitigation acreage for other impacts to habitat (e.g., type conversion due to grading to restore lands to a higher value habitat type) will be evaluated through a Habitat Mitigation and Monitoring Plan (HMMP), subject to review and approval by applicable regulatory agencies (e.g., California Coastal Commission, U.S. Fish and Wildlife Service, California Department of Fish and Wildlife, U.S. Army Corps of Engineers, San Diego Regional Water Quality Control Board).

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TABLE 2A
WETLAND MITIGATION RATIOS
INCLUDING BIOLOGICALLY SUPERIOR DESIGN

HABITAT TYPE	MITIGATION RATIO
Coastal Wetlands:	
- Salt marsh	4:1
- Salt panne	4:1
Riparian Habitats:	
- Oak riparian forest	3:1
- Riparian forest or woodland	3:1
- Riparian scrub	2:1
- Riparian scrub in the Coastal Overlay Zone	3:1
Freshwater Marsh	2:1
Freshwater Marsh in the Coastal Overlay Zone	4:1
Natural Flood Channel	2:1
Disturbed Wetland	2:1
Vernal Pools	2:1 to 4:1*
Marine Habitats	2:1
Eelgrass Beds	2:1

Notes:
Any impacts to wetlands must be mitigated "in-kind" and achieve a "no-net loss" of wetland function and values except as provided for in Section 3B (Economic Viability Option).

* Mitigation for vernal pool impacts consistent with the VPHCP shall be 2:1 for listed fairy shrimp or when no listed plant species are present, 3:1 for San Diego button celery, and 4:1 when listed species with very limited distributions (e.g., *Spreading navarretia, San Diego mesa mint, California Orcutt grass, and Otay mesa mint*) are present. While ratio is applied to the basin area, the mitigation site must include appropriate watershed to support restored and/or enhanced basins.

Impacts shall be mitigated in one of the following two equally suitable options pursuant to the City's Biology Guidelines: (1) implementation of habitat creation, restoration, enhancement, and/or preservation through an approved Habitat Mitigation and Monitoring Plan (HMMP) or (2) acquisition of approved mitigation credits, including approved City of San Diego (City) Advanced Permittee Responsible Mitigation (APRM) sites. Impacts occurring within the Coastal Overlay Zone shall be mitigated within the Coastal Overlay Zone unless alternative mitigation is approved through California Coastal Commission action.

Option 1: Prior to subsequent approval of a Program component(s), as part of subsequent project-specific environmental review pursuant to CEQA, an HMMP shall be prepared and approved by the City's Environmental Designee (ED), in accordance with the City of San

Diego Municipal Code, Land Development Code—Biology Guidelines (SDBG). Mitigation shall conform with the SDBG, including definitions for creation (re-establishment), restoration (including rehabilitation), enhancement, and/or acquisition identified under environmentally sensitive lands (ESL), satisfaction of no net loss by including at least a 1:1 ratio of creation or restoration for all areas of permanent loss to wetlands and the protection and notice and management elements.

When proposed mitigation involves habitat enhancement, restoration, or creation, the HMMP shall include the following information in addition to information required under Attachment B of the SDBG:

- Conceptual planting plan including planting zones, grading, and irrigation
- Seed mix/planting palette
- Planting specifications
- Monitoring program including success criteria
- Long-term maintenance and preservation plan

For mitigation that involves habitat acquisition, the HMMP shall include the following:

- Location of proposed acquisition
- Description of the biological resources to be acquired, including support for the conclusion that the acquired habitat mitigates for the specific maintenance impact
- Documentation that the mitigation area would be adequately preserved and maintained in perpetuity

Option 2: Prior to subsequent approval of a Program component(s), as part of subsequent project-specific environmental review pursuant to CEQA, allocation of mitigation site credits, approved by the ED, that shall include the following:

- A description of the location of the approved mitigation site and referenced on a map identifying the regional vicinity.
- Description of the mitigation credits to be acquired, including support for the conclusion that the acquired habitat mitigates for the specific impact. At a minimum, a description of the proposed habitat impacts, and the type (creation/restoration/enhancement) and quantity of mitigation credits requested.
- Documentation that the credits are associated with a mitigation bank or APRM site that has been approved by the appropriate Resource Agencies
- Documentation in the form of a current mitigation credit ledger

MM-BIO-2B **Compensatory Uplands Habitat Mitigation.** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, any direct impacts to sensitive upland vegetation would require mitigation to comply with City of San Diego with the City of San Diego's Biology Guidelines Table 3 (or the most current adopted guidelines at the time of review). Significant impacts to sensitive uplands (Tier I–III) could occur from Program activities, including habitat restoration, construction staging, access and stockpiling, and infrastructure improvements including storm drain outfalls, bike and pedestrian paths, and seawalls. Mitigation acreage for permanent loss of habitats (e.g., infrastructure improvements) shall adhere to mitigation ratios established under Table 3 of the City of San Diego Municipal Code, Land Development Code—Biology Guidelines. Mitigation required as part of any federal (Clean Water Act Section 404) or state (California Fish and Game Code Sections 1601 and 1603, California Coastal Act) permit shall supersede and shall not be in addition to any mitigation identified in the California Environmental Quality Act (CEQA) document for those upland areas covered by any federal or state permits. Mitigation acreage for other impacts to habitat (e.g., type conversion due to grading to restore lands to a higher value habitat type) will be evaluated through a Habitat Mitigation and Monitoring Plan (HMMP).

TABLE 3
UPLAND MITIGATION RATIOS[1]

TIER	HABITAT TYPE	MITIGATION RATIOS
TIER I[2] **(rare uplands)**	Southern Foredunes Torrey Pines Forest Coastal Bluff Scrub Maritime Succulent Scrub Maritime Chaparral Scrub Oak Chaparral Native Grassland Oak Woodlands	Location of Preservation Location of Impact: Inside — Inside 2:1, Outside 3:1; Outside — Inside 1:1, Outside 2:1
TIER II[3] **(uncommon uplands)**	Coastal Sage Scrub (CSS) CSS/Chaparral	Location of Preservation Location of Impact: Inside — Inside 1:1, Outside 2:1; Outside — Inside 1:1, Outside 1.5:1
TIER IIIA[3] **(common uplands)**	Mixed Chaparral Chamise Chaparral	Location of Preservation Location of Impact: Inside — Inside 1:1, Outside 1.5:1; Outside — Inside 0.5:1, Outside 1:1
TIER IIIB[3] **(common uplands)**	Non-Native Grasslands[4]	Location of Preservation Location of Impact: Inside — Inside 1:1, Outside 1.5:1; Outside — Inside 0.5:1, Outside 1:1
TIER IV **(other uplands)**	Disturbed Land Agriculture Eucalyptus Woodland Ornamental Plantings	Location of Preservation Location of Impact: Inside — Inside 0:1, Outside 0:1; Outside — Inside 0:1, Outside 0:1

NOTES:

1. No mitigation would be required for impacts within the base development area (25%) occurring inside the MHPA. Mitigation for any impacts from development in excess of the 25% base development area for community plan public facilities or for projects processed through the deviation process would be required at the indicated ratios.

2. For all Tier I impacts, the mitigation could (1) occur within the MHPA portion of Tier I (in Tier) or (2) occur outside of the MHPA within the affected habitat type (in-kind).

3. For impacts to Tier II, III A and III B habitats, the mitigation could (1) occur within the MHPA portion of Tiers I – III (out-of-kind) or (2) occur outside of the MHPA within the affected habitat type (in-kind).

4. Mitigation for impacts to occupied burrowing owl habitat (at the subarea plan specified ratio) must be through the conservation of occupied burrowing owl habitat or conservation of lands appropriate for restoration, management, and enhancement of burrowing owl nesting and foraging requirements.

Impacts shall be mitigated in one of the following four equally suitable options pursuant to the City's Biology Guidelines: (1) off-site acquisition; (2) on-site preservation; (3) habitat restoration; or (4) monetary compensation. Implementation of habitat creation, restoration, enhancement, and/or preservation through an approved Habitat Mitigation and Monitoring Plan (HMMP) may utilize methods 1 through 3 listed above. Acquisition of approved mitigation credits, including approved City of San Diego (City) APRM sites or payment into the Habitat Acquisition Fund, may utilize methods 1 or 4.

Option 1: Prior to subsequent project level approval, as part of subsequent projects specific environmental review pursuant to CEQA, an HMMP shall be prepared and approved by the City, in accordance with the City of San Diego Municipal Code, Land Development Code—Biology Guidelines (SDBG). Mitigation shall conform with the SDBG, including definitions for preservation and/or restoration of Tier I-III uplands and satisfaction of mitigation ratios for sensitive uplands based on location of permanent loss, mitigation habitat relative to the Multi Habitat Planning Area (see Table 3 of the SDBG), and the protection and notice and management elements.

When proposed mitigation involves habitat restoration, the HMMP shall include the following information in addition to information required under Attachment B of the SDBG:

- Conceptual planting plan including planting zones, grading, and irrigation
- Seed mix/planting palette
- Planting specifications
- Monitoring program including success criteria
- Long-term maintenance and preservation plan

- For mitigation that involves habitat preservation or acquisition, the HMMP shall include the following:
  - Location of proposed acquisition
  - Description of the biological resources to be acquired, including support for the conclusion that the acquired habitat mitigates for the specific maintenance impact
  - Documentation that the mitigation area would be adequately preserved and maintained in perpetuity

Option 2: Preference shall be given for the purchase of mitigation credits for impacts to Tier II or III upland habitats at the Marron Valley Cornerstone Mitigation Bank. All allocations of mitigation site credits at the Marron Valley Cornerstone Mitigation Bank or another suitable mitigation bank, approved by the City's ED, shall include the following:

- A description of the location of the approved mitigation site and referenced on a map identifying the regional vicinity.
- Description of the mitigation credits to be acquired, including support for the conclusion that the acquired habitat mitigates for the specific maintenance impact. At a minimum, a description of the proposed habitat impacts, and the type (creation/restoration/ enhancement) and quantity of mitigation credits requested.
- Documentation that the credits are associated with a mitigation bank or APRM site that has been approved by the appropriate Resource Agencies
- Documentation in the form of a current mitigation credit ledger

Mitigation monies may also be deposited in the City's Habitat Acquisition Fund as mitigation acreage credit, based on the current estimate of land costs and administration, as approved by the City's ED.

MM-BIO-3 **Biological Resource Protection During Construction.** The following measures will be included in the construction plans for each program component that is within or adjacent to sensitive wetlands or sensitive uplands (Tier I–III):

Prior to Construction

A. **Biologist Verification** – Prior to the start of Project construction activities, the Project Biologist shall submit a letter to the City of San Diego (City) Environmental Designee (ED) that a Qualified Biologist, as defined in the City of San Diego's 2018 Biological Guidelines, has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project.

B. **Biological Documents** – Prior to the issuance of the Notice to Proceed and/or first preconstruction meeting, The Qualified Biologist shall submit all required documentation to the ED verifying that any special mitigation reports, including, but not limited to, maps, plans, surveys, survey timelines, or buffers, are completed or scheduled per City Biology Guidelines, Multiple Species Conservation Program (MSCP) Subarea Plan (SAP), Environmentally Sensitive Lands (ESL) Ordinance, project permit conditions; California Environmental Quality Act (CEQA); endangered species acts (ESAs); and/or other local, state, or federal requirements.

   Prior to the start of construction within or immediately adjacent to the Multi-Habitat Planning Area (MHPA), the ED shall verify that all MHPA boundaries and limits of work have been delineated on all construction documents.

C. **BCME** – Prior to the issuance of the Notice to Proceed and/or first preconstruction meeting, The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME), which includes the biological documents in C above. In addition, the BCME shall include the limits of work, proposed monitoring schedule, restoration/revegetation plans, plant salvage/relocation requirements, avian or other wildlife surveys/survey schedules (including general avian nesting and U.S. Fish and Wildlife Service [USFWS] protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/ barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the ED. The BCME shall include a site plan, a written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by the ED and referenced in the construction documents. The BCME shall be approved by the ED prior to the start of construction.

D. **Avian Protection Requirements** – To avoid any direct impacts to any species identified as a listed, candidate, sensitive, or special-status species in the MSCP SAP, removal of habitat that supports active nests of native species in the proposed area of disturbance shall occur outside of the breeding season for these species (February 1 to September 15). If removal of habitat in the proposed area of disturbance must occur during the breeding season, the Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The pre-construction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the results of the pre-construction survey to the ED for review and approval prior to initiating any construction activities. If nesting bird activities are detected, a letter report in conformance with the City's Biology Guidelines (e.g., appropriate follow-up surveys, monitoring schedules, construction and noise barriers/buffers) shall be prepared and include proposed measures to be implemented to ensure that take of birds or

eggs or disturbance of breeding activities is avoided. The report shall be submitted to the City for review and approval and implemented to the satisfaction of the City. The City's ED and Biologist shall verify and approve that all measures identified in the report are in place prior to and/or during construction.

E. **Resource Delineation** – Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats and verify compliance with any other project conditions as shown on the BCME to ensure crews remain in the approved work areas. These demarcations will not be required for locations with existing structures, such as chain-link fencing, along the limits of work or areas that are adjacent to non-sensitive habitat areas. In-water work areas shall be buoyed off to limit the extent of direct impacts to eelgrass. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora and fauna species, including nesting birds) during construction. Appropriate care shall be taken to minimize attraction of nest predators to the site.

F. **Cover Trenches.** The qualified monitoring biologist shall oversee the construction site so that cover and/or escape routes for wildlife from excavated areas shall be provided daily. All steep trenches, holes, and excavations during construction shall be covered at night with backfill, plywood, metal plates, or other means, and if plastic sheeting is used, the edges must be covered with soils such that small wildlife cannot access the excavated hole. Soil piles shall be covered at night to prevent wildlife from burrowing in. The edges of the sheeting shall be weighed down by sandbags. These areas may also be fenced to prevent wildlife from gaining access. Exposed trenches, holes, and excavations shall be inspected twice daily (i.e., each morning and before sealing the exposed area) by the qualified monitoring biologist to monitor for wildlife entrapment. Excavations shall provide an earthen ramp to allow for a wildlife escape route. The qualified monitoring biologist shall verify that the contractor

G. **Pre-Construction Meeting/Education** – Prior to construction, a pre-construction meeting shall be held on site with the following in attendance: the City's Project Manager (PM; or equivalent personnel), an Engineering & Capital Projects (ECP) Environmental representative, the Project Contractor (PC) (if applicable), and the Qualified Monitoring Biologist (QMB). At this meeting, the QMB shall identify and discuss the mitigation measures that apply to project activities and the sensitive nature of the adjacent habitat with the crew and PC.

At the pre-construction meeting, the QMB shall submit to the City ED and PM a copy of the BCME that identifies areas to be protected, fenced, and monitored. This data

shall include all planned locations and design of noise attenuation walls or other devices, if applicable.

Prior to commencement of utility undergrounding activities, the QMB shall also meet with the PC and the construction crew and conduct an on-site educational session regarding the need to avoid impacts outside of the approved work area and to protect sensitive flora and fauna that may occur at the project location (e.g., explain the avian and wetland buffers and the flag system for removal of invasive species or retention of sensitive plants and clarify acceptable access routes/methods and staging areas).

During Construction

A. **Monitoring & Reporting** – All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on "Exhibit A" and/or the BCME. The Qualified Biologist shall monitor construction activities as needed to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the pre-construction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR shall be emailed to the ED on the first day of monitoring, the first week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.

B. **Subsequent Resource Identification** – The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna on site (e.g., flag plant specimens for avoidance during access). If active nests or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species-specific local, state, or federal regulations have been determined and applied by the Qualified Biologist.

Post Construction

A. **Final Monitoring Report -** If no deviations from the approved construction plan occur during work, no additional documentation is required. If deviations from the approved construction plan do occur, such as unanticipated impacts to sensitive vegetation communities or unanticipated discharge of pollutants, a Final Monitoring Report shall be prepared within 30 days following the completion of mitigation monitoring efforts detailing construction and monitoring that occurred and any remedial or compensatory measures taken.

B. **Unintended Impact Mitigation -** In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City

Biology Guidelines, ESL and MSCP SAP, State CEQA, and other applicable local, state, and federal laws. The Qualified Biologist shall submit a final BCME/report to the satisfaction of the ED within 30 days of construction completion.

MM-BIO-4 **Species-Specific Sensitive Plant Mitigation.** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, any direct impacts to the following special-status plant species would require mitigation in the form of an approved Conceptual Restoration Plan that would be implemented if any of the following species are identified within the proposed construction area: coast woolly-heads, decumbent goldenbush, estuary seablite, Nuttall's lotus, aphanisma, Coulter's saltbush, southcoast saltscale, golden-spined cereum, cliff spurge, Orcutt's pincushion, or Brand's phacelia.

The approved Conceptual Restoration Plan can be combined with the project Habitat Mitigation and Monitoring Plan and shall be prepared in accordance with Attachment B of the City's Biology Guidelines and implemented in accordance with the City's Biology Guidelines. The plan shall include:

- Provisions to salvage impacted plants for restoration following construction (i.e., transplantation), if feasible.
- Soil shall be salvaged and re-used within on-site or off-site restoration areas, where appropriate, to capture seed bank and/or transfer soil conditions.
- Seeds from impacted plants would be collected for grow-out and use in on-site or off-site restoration following construction, if feasible.
- Conceptual planting plan, including grading and temporary irrigation if necessary to create appropriate habitat conditions to support the species.
- Planting specifications (e.g., seed source, soil suitability, container size).
- Monitoring program including success criteria (e.g., a minimum number of sensitive plant individuals, a minimum percent cover of native species, a maximum percent cover of non-native species).
- Long-term maintenance and preservation plan (e.g., sensitive plant monitoring, fencing and signage, adaptive management actions, site security from trespass or vandalism).

MM-BIO-5 **Eelgrass Mitigation.** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, focused eelgrass surveys shall be conducted within suitable habitat and in accordance with the California Eelgrass Mitigation Policy and Implementing Guidance (NOAA 2014). Where it is determined that eelgrass will be impacted by fill activities, an Eelgrass Mitigation and Monitoring Plan (Mitigation Plan) shall be prepared for review and approval by the

National Oceanic and Atmospheric Administration's NMFS and the California Department of Fish and Wildlife (CDFW). The Mitigation Plan shall describe the approach for compensatory mitigation for the loss of eelgrass habitat. Such mitigation shall be implemented in accordance with the NMFS California Eelgrass Mitigation Policy, including site selection; initial and long-term habitat area replacement ratios; methods for and timing of transplantation activities; and monitoring, performance, and reporting requirements. In addition, mitigation shall comply with City of San Diego's Biology Guidelines Table 2A (or the most current adopted guidelines at the time of review).

Preference shall be given to in-kind replacement of the eelgrass habitat. At a minimum, the no-net-loss creation mitigation (1:1) for eelgrass beds habitat shall be required to occur within Mission Bay itself per the Mission Bay Park Natural Resource Management Plan to the greatest extent feasible. Should in-kind mitigation within Mission Bay not be feasible, consideration shall be given to in-kind mitigation first in areas in close proximity to Mission Bay, then in locations within the Southern California region. If in-kind mitigation is not feasible, mitigation banks or in-lieu fee conservation programs shall be given preference over out-of-kind mitigation**.** All mitigation shall conform with the wetland restoration provisions of the City's Biology Guidelines.

MM-BIO-6 **Grunion Monitoring and Avoidance Plan.** As part of the subsequent project-specific environmental review pursuant to CEQA it shall be determined if project activities are necessary below the high tide line during the grunion spawning season (March 1 through August 31 of any year), the project site and a 100-foot buffer shall be surveyed for spawning grunion during high tide of a full or new moon for 3 nights, beginning with the nearest grunion run prior to commencement of sand placement activities. Monitoring shall be conducted by a qualified biologist and the California Department of Fish and Wildlife (CDFW) published dates for grunion runs should be utilized. Project activities below the high tide line shall not occur within the 4 days of a full or new moon event (see CDFW grunion run calendar). Grunion monitoring shall be conducted by a qualified biologist for 30 minutes prior to, and 2 hours following, the predicted start of each daily spawning event. Sufficient qualified biologists shall be employed to ensure that the entire proposed sand placement site is monitored during the predicted grunion run. Monitoring is not necessary in areas where there is no sand, such as areas supporting 100% cobble or marshlands with no sand exposed during high tide.

The magnitude and extent of a spawning event shall be defined in 300-foot segments of beach using the Walker Scale. Every individual fish (males and females) shall be counted each night (3 nights total), with the greatest numbers being utilized to determine the Walker Scale value (e.g., 0, 1, 2, 3, 4, or 5) of each 300-foot segment

within the proposed work area. Project activities shall be modified according to the following plan:

If a grunion run consisting of 0–100 individual fish per 300-foot segment (Walker Scale 0) is reported within 2 weeks prior to, or during, project work, the Contractor does not need to take any avoidance action for grunion eggs. No mature grunion may be intentionally buried or harmed as a result of project activities.

Within 2 weeks prior to proposed work, if a grunion run consisting of 100 or more individual fish per 300-foot segment (Walker Scale 1, 2, 3, 4, or 5) is reported, the Contractor shall avoid work on the respective beach segment(s) and truck route and additionally, shall avoid a 100-foot buffer on either side of the segment(s) and route for a minimum of 2 weeks, to ensure that no grunion eggs are buried or disturbed. These areas shall be memorialized through multiple GPS coordinates and marked with irrigation flags for a minimum of 2 weeks or when the next scheduled grunion run will be monitored. The Contractor shall adapt the project schedule to avoid operations on such beach segments and their associated buffers. No mature grunion may be intentionally harmed as a result of project activities.

If project activities have already commenced, and a grunion run consisting of 100 to 500 individual fish in one or more 300-foot segments (Walker Scale 2) in the work area is reported, the Contractor shall avoid impacts to grunion eggs to the greatest extent feasible and then shall minimize impacts to grunion eggs through such measures as alteration of the truck route, sediment discharge points, spreading areas, and placement locations.

If project activities have already commenced, and a grunion run consisting of 500 or more individual fish per segment (Walker Scale 3, 4, or 5) is reported, the Contractor shall avoid work on the respective beach segment(s) and truck route and additionally, shall avoid a 100-foot buffer on either side of the segment(s) and route for a minimum of 2 weeks, to ensure that no grunion eggs are buried or disturbed. These areas shall be memorialized through multiple GPS coordinates, and marked with irrigation flags for a minimum of 2 weeks when the next scheduled grunion run will be monitored. The Contractor shall adapt the project schedule to avoid operations on such beach segments and their associated buffers. No mature grunion may be intentionally harmed as a result of project activities.

MM-BIO-7 **Caulerpa Management.** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, the City shall retain a certified *Caulerpa* surveyor as per NOAA Fisheries Certified Caulerpa Surveyors List to identify the potential existence of invasive *Caulerpa* spp. within the

program component areas that have potential to support invasive *Caulerpa* spp., as identified during subsequent review and approvals, through surveys conducted in accordance with the Caulerpa Control Protocol: https://media.fisheries.noaa.gov/2021-12/caulerpacontrol-protocol-v5.pdf (October 2021) prior to construction in those Program component areas. Any sightings of *Caulerpa* spp. shall be reported within 24 hours to CDFW (Caulerpa@wildlife.ca.gov) and the National Oceanic and Atmospheric Administration (NOAA) Fisheries at (562) 980-4037 and nmfs.wcr.caulerpa@noaa.gov.

MM-BIO-8 **Avoidance of Listed Species Take.** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, an analysis of listed wildlife species that have a moderate or high potential to occur within or adjacent to individual project components must be conducted. The analysis shall be based on life history and distribution of each species and presence of suitable habitat within or adjacent to the project and survey results collected through implementation of MM-BIO-1, to determine the applicability of measures below that shall be implemented.

MM-BIO-8A **Coastal California Gnatcatcher (CAGN).** Prior to any project pre-construction meeting associated with the Program, the Environmental Designee (ED) shall verify that Multi-Habitat Planning Area (MHPA) as well as any appropriate requirements regarding coastal California gnatcatcher, as specified below, are shown on the project's biological monitoring exhibit(s).

No construction activities shall occur within or adjacent to suitable habitat during the breeding seasons of coastal CAGN (March 1 to August 15) until the following requirements have been met to the satisfaction of the ED:

1. A Qualified Biologist (possessing a valid Endangered Species Act Section 10[a][1][a] Recovery Permit) shall survey those suitable habitat areas within the MHPA that would be subject to construction noise levels exceeding 60 A-weighted decibels (dBA) hourly average for the presence of CAGN. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service (USFWS) within the breeding season prior to the commencement of any construction. If CAGN is present, then the following conditions must be met:

    a) From March 1 through August 15, no clearing, grubbing, or grading of occupied habitat shall be permitted within the MHPA. Areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; and

b) From March 1 through August 15 no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied habitat in the MHPA. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the ED at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; or

c) At least 2 weeks prior to the commencement of construction activities, under the direction of a Qualified Acoustician, attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed 60 dBA hourly average at the edge of habitat occupied by CAGN and located in the MHPA. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area in the MHPA to ensure that levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (August 16). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the ED, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

2 If CAGN are not detected during the protocol survey, the permitted biologist shall submit substantial evidence to the ED and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary between March 1 through August 15 and adherence to the following is required:

a) If this evidence indicates that the potential is high for CAGN, to be present based on historical records or site conditions, then Condition 1(a) through 1(c) shall be adhered to as specified above.

b) If this evidence concludes that no impacts to the applicable species are anticipated, no additional mitigation measures would be necessary.

MM-BIO-8B **Least Bell's Vireo (LBV).** Prior to any project pre-construction meeting associated with the Program, Environmental Designee (ED) verify that appropriate requirements regarding LBV, as specified below, are shown on the project's biological monitoring exhibit(s).

No construction activities shall occur within or adjacent to suitable habitat during the breeding seasons of LBV (March 15 to September 15) until the following requirements have been met to the satisfaction of the ED:

1) A Qualified Biologist (possessing a valid Endangered Species Act Section 10[a][1][a] Recovery Permit) shall survey those habitat areas that would be subject to construction noise levels exceeding 60 A-weighted decibels (dBA) hourly average for the presence of LBV. Surveys for this species shall be conducted pursuant to the protocol survey guidelines established by the U.S. Fish and Wildlife Service (USFWS) within the breeding season prior to the commencement of any construction. If LBV is present, then the following conditions must be met:

a) From March 15 through September 15 no clearing, grubbing, or grading of occupied habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; and

b) From March 15 through September 15 no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied habitat. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the ED at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of

construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; or

c) At least 2 weeks prior to the commencement of construction activities, under the direction of a Qualified Acoustician, attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed 60 dBA hourly average at the edge of habitat occupied by LBV. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the ED, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

2) If LBV are not detected during the protocol survey, the permitted biologist shall submit substantial evidence to the ED and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary between March 15 through September 15 and adherence to the following is required:

a) If this evidence indicates that the potential is high for LBV to be present based on historical records or site conditions, then Condition 1(a) through 1(c) shall be adhered to as specified above.

b) If this evidence concludes that no impacts to the applicable species are anticipated, no additional mitigation measures would be necessary.

MM-BIO-8C **California Least Tern (CLT)/Western Snowy Plover (WSP).** In order to prevent impacts to CLT and WSP, no clearing, grubbing or grading, or active wetland creation/restoration shall take place within or adjacent to the MHPA, CLT preserves as identified in the current Mission Bay Park Natural Resources Management Plan at the

time of construction, or coastal salt marsh habitats during the City's general avian breeding season of February 1 to September 15.

Additionally, the following requirements from the Mission Bay Park Natural Resource Management Plan (City of San Diego 1990) and Mission Bay Park Master Plan Update (City of San Diego 2002) for the CLT shall be met:

1) In-water construction or dredging shall not be permitted in Mission Bay from April 1 through September 15, unless otherwise approved in writing by the City of San Diego, California Department of Fish and Wildlife, and U.S. Fish and Wildlife Service. Any exception would have to meet the following criteria to preserve least tern nesting and foraging: use of silt curtains or similar devices around in-water construction activity, use of noise reduction or low noise equipment, and use of timing and location restrictions on activity to avoid interfering with breeding sites or major least tern foraging areas.
2) Direct impacts to permanently designated least tern nesting sites shall not be permitted.
3) The 150-foot buffer zone for each least tern nesting site shall be free of structures with heights over 6 feet, including fencing, to avoid providing raptors perches from which to prey on CLT chicks.
4) Any existing noise attenuation berms to prevent any significant noise from reaching the Multi-Habitat Planning Area and CLT preserve shall remain in accordance with the Mission Bay Park Natural Resource Management Plan and Mission Bay Park Master Plan.
5) If construction activities take place during the CLT breeding season, significant impacts may occur to least tern in the Multi-Habitat Planning Area. To avoid significant noise impacts to breeding least terns, construction within 500 feet of least tern preserves shall take place outside the least tern breeding season, which ranges from April 1 to September 15.

Additionally, the following requirements for the CLT shall be met:

1) Beginning April 1 and ending on September 15, a CLT biologist shall monitor daily for the arrival of CLTs into Mission Bay, and immediately notify the USFWS upon their arrival. Notification to the USFWS shall occur via email on a daily basis as to the presence or absence of least terns in Mission Bay. The CLT biologist shall be present throughout the period of in-water construction and will note the present of CLTs in Mission Bay and the work area.

2) A biological monitoring with CLT experience shall be present on all days when in-water work is conducted after least terns arrive in Mission Bay. The biological monitor shall be present throughout the period of in-water construction and shall note the presence of CLTs in Mission Bay and the work area, and any project-generated surface turbidity. Surface turbidity is defined as an obvious discoloration of the top 10 feet of the water column visible to the human eye. Project-generated surface turbidity shall not exceed 500 feet in length or width, or persist long than 1 hour.

3) The biological monitoring shall provide daily field reports to the ED and USFWS within 24 hours of each monitoring date. The daily field reports shall include photographs showing the best management practices surrounding the work area taken during in-water work, and any incidences of plume escape or expansion outside of the silt curtain. The biological monitoring shall also submit a final summary report of monitoring to the ED and USFWS within 30 days of completion of in-water work.

In addition, if work is proposed where CLT or WSP has a moderate or high potential to nest, a USFWS and CDFW-approved biologist will perform the following duties prior to the start of construction of those program component areas:

1) The USFWS-CDFW biologist shall survey those suitable habitat areas that would be subject to construction noise levels exceeding 60 dBA hourly average for the presence of CLT and/or WSP. As required by species, surveys shall be conducted pursuant to any approved protocol survey guidelines established by USFWS, CDFW or other authorized agency within the breeding season prior to the commencement of any construction. If CLT and/or WSP are determined to be present, then the following conditions must be met:

    a) From March 1 to September 15 for WSP and April 1 to September 15 for CLT, no clearing, grubbing, or grading of occupied habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist. No construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied habitat. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the Environmental Designee (ED) at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas

restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; or

b) At least 2 weeks prior to the commencement of construction activities, under the direction of a Qualified Acoustician, attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed 60 dBA hourly average at the edge of habitat occupied by CLT and/or WSP. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16). Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the ED, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

2) If CLT and/or WSP are not detected during the required survey(s), the permitted biologist shall submit substantial evidence to the ED and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary during the specific breeding seasons for these species, and adherence to the following is required:

a) If this evidence indicates that the potential is high for CLT and/or WSP to be present based on historical records or site conditions, then Condition 1(a) through 1(c) shall be adhered to as specified above.

b) If this evidence concludes that no impacts to this species are anticipated, no additional mitigation measures would be necessary.

MM-BIO-8D **Light-Footed Ridgway's Rail and Belding's Savannah Sparrow (LFRR/BSS).** If work is proposed where light-footed Ridgway's rail (LFRR) or Belding's savannah sparrow (BSS) has a moderate or high potential to nest, a USFWS (for LFRR only) and CDFW (for

LFRR and BSS) approved biologist will perform the following duties prior to the start of construction of those Program component areas:

1) The approved biologist shall survey those suitable habitat areas that would be subject to construction noise levels exceeding 60 dBA hourly average for the presence of LFRR and/or BSS. As required by species, surveys shall be conducted pursuant to any approved protocol survey guidelines established by USFWS, CDFW or other authorized agency within the breeding season prior to the commencement of any construction. If LFRR and/or BSS are determined to be present, then the following conditions must be met:

    a) From March 1 to September 15 for LFRR and February 1 to August 1 for BSS, no clearing, grubbing, or grading of occupied habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; and

    b) From March 1 to September 15 for LFRR and February 1 to August 1 for BSS, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dBA hourly average at the edge of occupied habitat. An analysis showing that noise generated by construction activities would not exceed 60 dBA hourly average at the edge of occupied habitat must be completed by a Qualified Acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the Environmental Designee (ED) at least 2 weeks prior to the commencement of construction activities. Prior to the commencement of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of the qualified monitoring biologist; or

    c) At least 2 weeks prior to the commencement of construction activities, under the direction of a Qualified Acoustician, attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities would not exceed 60 dBA hourly average at the edge of habitat occupied by LFRR and/or BSS. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring shall be conducted at the edge of the occupied habitat area to ensure that levels do not exceed 60 dBA hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the Qualified Acoustician or Biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16 for LFRR and August 2 for BSS). Construction noise monitoring shall continue to be

monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. If not, other measures shall be implemented in consultation with the biologist and the ED, as necessary, to reduce noise levels to below 60 dBA hourly average or to the ambient noise level if it already exceeds 60 dBA hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

2) If LFRR and/or BSS are not detected during the required survey(s), the permitted biologist shall submit substantial evidence to the ED and applicable resource agencies that demonstrates whether or not mitigation measures such as noise walls are necessary during the specific breeding seasons for these species, and adherence to the following is required:

   a) If this evidence indicates that the potential is high for LFRR and/or BSS to be present based on historical records or site conditions, then Condition 1(a) through 1(c) shall be adhered to as specified above.

   b) If this evidence concludes that no impacts to this species are anticipated, no additional mitigation measures would be necessary.

MM-BIO-8E **Western Burrowing Owl (BUOW).** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, it shall be determined If work is proposed at a project location where BUOW have been identified during subsequent review to have a moderate or high potential to occur, the following species-specific mitigation measure is required.

Prior to issuance of any construction permits, the Environmental Designee (ED) shall verify that the following project requirements regarding BUOW are shown on the construction plans and/or included in the contract specifications:

Prior to Permit or Notice to Proceed Issuance:

1) As program component areas have been determined to have BUOW occupation potential, the Applicant Department or Permit Holder shall submit evidence to the Environmental Designee (ED) and MSCP SAP staff, to the satisfaction of the City, verifying that a Biologist possessing qualifications pursuant to the California Department of Fish and Game (CDFG) 2012 Staff Report on BUOW Mitigation (hereafter referred as the CDFG 2012 Staff Report) has been retained to implement a BUOW construction impact avoidance program.

2) The qualified BUOW biologist (or their designated biological representative) shall attend the pre-construction meeting to inform construction personnel about the City's BUOW requirements and subsequent survey schedule.

Prior to Start of Construction:

1) The Applicant Department or Permit Holder and Qualified Biologist must ensure that initial pre-construction/take avoidance surveys of the component construction "site" are completed between 14 and 30 days before initial construction activities, including brushing, clearing, grubbing, or grading of the site, regardless of the time of the year. "Site" means the component construction site and the area within a radius of 450 feet of the component construction site. A report detailing the results of the surveys shall be submitted and approved by the Wildlife Agencies (i.e., USFWS and the California Department of Fish and Wildlife [CDFW]) and/or City MSCP SAP staff prior to construction or BUOW eviction(s) and shall include maps of the component site and BUOW locations on aerial photos.
2) The pre-construction survey shall follow the methods described in the CDFG 2012 Staff Report Appendix D.
3) 24 hours prior to commencement of ground-disturbing activities, the Qualified Biologist shall verify results of pre-construction/take avoidance surveys via review of the Survey Report (see report requirements in CDFG 2012, Staff Report – Appendix D 3) that is to be provided to the City and Wildlife Agencies. Written verification via the Survey Report shall be provided to the City's ECP ED and MSCP SAP Sections, and to the satisfaction of these sections. If results of the pre-construction surveys have changed and BUOW are present in areas not previously identified, immediate notification to the City and Wildlife Agencies shall be provided prior to ground-disturbing activities.

During Construction:

1) Best management practices shall be employed, as BUOWs are known to use open pipes, culverts, excavated holes, and other burrow-like structures at construction sites. Legally permitted active construction projects that are occupied by BUOW and have followed all protocol in this mitigation section, or sites within 450 feet of occupied BUOW areas, shall undertake measures to discourage BUOWs from recolonizing previously occupied areas or colonizing new portions of the site. Such measures include, but are not limited to, ensuring that the ends of all pipes and culverts are covered when they are not being worked on and covering rubble piles, dirt piles, ditches, and berms.

2) Ongoing BUOW detection – If BUOWs or active burrows are not detected during the pre-construction surveys, Section "A" below shall be followed. IF BUOWS OR BURROWS ARE DETECTED DURING THE PRE-CONSTRUCTION SURVEYS, SECTION "B" SHALL BE FOLLOWED. NEITHER THE MSCP SUBAREA PLAN NOR THIS MITIGATION SECTION ALLOWS FOR ANY BUOWS TO BE INJURED OR KILLED OUTSIDE **OR** WITHIN THE MHPA; IN ADDITION, IMPACTS TO BUOWS WITHIN THE MHPA MUST BE AVOIDED.

   A. Post-Survey Follow-Up if BUOWs and/or Signs of Active Natural or Artificial Burrows Are Not Detected During the Initial Pre-Construction Survey – Monitoring the site for new burrows is required using the protocol in CDFG 2012 Staff Report Appendix D for the period following the initial pre-construction survey, until construction is scheduled to be complete and is complete. *(NOTE: Using a projected completion date [that is amended if needed] will allow development of a monitoring schedule that adheres to the required number of surveys in the detection protocol.)*

      i) If no active burrows are found but BUOWs are observed to occasionally (1–3 sightings) use the site for roosting or foraging, they shall be allowed to do so with no changes in the construction or construction schedule.

      ii) If no active burrows are found but BUOWs are observed, during follow-up monitoring or repeatedly (4 or more sightings), using the site for roosting or foraging, the ED shall be notified, and any portion of the site where owls have been sighted and that has not been graded or otherwise disturbed shall be avoided until further notice.

      iii) If a BUOW begins using a burrow on the site at any time after the initial pre-construction survey, procedures described in Section "b" must be followed.

      iv) Any actions other than these require the approval of the City and the Wildlife Agencies.

   B. Post-Survey Follow Up if BUOWs and/or Active Natural or Artificial Burrows Are Detected During the Initial Pre-Construction Survey – Monitoring the site for new burrows is required using the protocol in CDFG 2012 Staff Report Appendix D for the period following the initial pre-construction survey, until construction is scheduled to be complete and is complete. (*NOTE: Using a projected completion date [that is amended if needed] will allow development of a monitoring schedule that adheres to the required number of surveys in the detection protocol.)* This section (B) applies only to sites (including biologically defined territory) wholly outside of the MHPA; ALL DIRECT AND INDIRECT IMPACTS TO BUOWS WITHIN THE MHPA SHALL BE AVOIDED.

i) If one or more BUOWs are using any burrows (including pipes, culverts, debris piles, etc.) on or within 300 feet of the proposed construction area, the ED and MSCP SAP staff shall be immediately contacted. The City's ED and MSCP SAP staff shall contact the Wildlife Agencies regarding eviction/collapsing burrows and enlist the appropriate City biologist for ongoing coordination with the Wildlife Agencies and the qualified consulting BUOW biologist. No construction shall occur within 300 feet of an active burrow without written concurrence from the Wildlife Agencies. This distance may increase or decrease, depending on the burrow's location in relation to the site's topography, and other physical and biological characteristics.

a) Outside the Breeding Season – If the BUOW is using a burrow on site outside the breeding season (i.e., September 1 to January 31), the BUOW may be evicted after the qualified BUOW biologist has determined via fiber optic camera or other appropriate device, that no eggs, young, or adults are in the burrow. Eviction requires preparation of an Exclusion Plan prepared in accordance with CDFG 2012 Staff Report Appendix E (or most recent guide available) for review and submittal to the Wildlife Agencies. Written concurrence from the Wildlife Agencies is required prior to Exclusion Plan implementation.

b) During Breeding Season – If a BUOW is using a burrow on site during the breeding season (February 1 to August 31), construction shall not occur within 300 feet of the burrow until the young have fledged and are no longer dependent on the burrow, at which time the BUOWs can be evicted. Eviction requires preparation of an Exclusion Plan prepared in accordance with CDFG 2012 Staff Report, Appendix E (or most recent guidance available) for review and submittal to Wildlife Agencies and City of San Diego (ECP ED and MSCP SAP). Written concurrence from the Wildlife Agencies prior to Exclusion Plan implementation.

C. Survey Reporting During Construction – Details of construction surveys and evictions (if applicable) conducted shall be immediately (within 5 working days or sooner) reported to the ECP ED, MSCP SAP staff and the Wildlife Agencies and must be provided in writing (as by email) and acknowledged to have been received by the required Wildlife Agencies and ECP staff member(s).

Post Construction:

1) Details of all the surveys and actions undertaken on site with respect to BUOWs (e.g., occupation, eviction, locations) shall be reported to the ECP

ED and the Wildlife Agencies within 21 days post-construction. This report must include summaries of all previous reports for the site and maps of the site and BUOW locations on aerial photos.

MM-BIO-8F **Crotch's Bumble Bee.** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA,, it shall be determined if work is proposed at a Program component location where Crotch's bumble bee have been identified during subsequent review to have a moderate or high potential to occur, the following species-specific mitigation measure is required to minimize the potential for take of this state candidate endangered species. Should this species no longer be a state candidate for listing or state listed as threatened or endangered at the time of the pre-construction meeting or protocol surveys are completed and determine the species is absent from the Program component site, then this mitigation measures shall not be required.

1) Prior to the issuance of a Notice to Proceed (NTP) for any construction, the City's Environmental Designee (ED) shall review and approve construction documents (plans, specification, details, etc.) to ensure the applicable mitigation monitoring and reporting program (MMRP) requirements are incorporated into the design.

    a) To avoid impacts on Crotch's bumble bee, removal of habitat in the proposed area of disturbance must occur outside of the Colony Active Period between April 1 and August 31. If the removal of habitat in the proposed area of disturbance must occur during the Colony Active Period, a Qualified Biologist shall conduct a pre-activity survey no more than 3 days prior to the initiation of construction activities to determine the presence or absence of Crotch's bumble bee within the proposed area of disturbance.

    b) Surveys must be conducted by a Qualified Biologist meeting the qualifications discussed in the CDFW guidance (i.e., Survey Considerations for CESA Candidate Bumble Bee Species, dated June 6, 2023).

    c) The pre-activity survey shall consist of photographic surveys following CDFW guidance (i.e., Survey Considerations for CESA Candidate Bumble Bee Species, dated June 6, 2023). In coordination with CDFW, the Qualified Biologist may be required to send all photo vouchers to a CDFW-approved taxonomist to confirm the identifications of the bumble bees encountered during surveys. The surveys shall consist of passive methods unless a Memorandum of Understanding is obtained from CDFW. If additional activities (e.g., capture or handling) are deemed necessary to identify bumble bees of an unknown species that may be Crotch's bumble bee, then the Qualified Biologist shall obtain the required authorization via a Memorandum of Understanding or Scientific Collecting Permit pursuant to the CDFW 2023 Survey Considerations

for CESA Candidate Bumble Bee Species. Survey methods that involve lethal take of species are not acceptable. Survey results will be considered valid until the start of the next colony active period.

d) If pre-activity surveys identify Crotch's bumble bee individuals on site, the Qualified Biologist shall notify and consult with CDFW to establish, monitor, and maintain no-work buffers around the associated floral resources or nest, as appropriate. The size and configuration of the no-work buffer shall be based on the best professional judgment of the Qualified Biologist in consultation with CDFW. Construction activities shall not occur within the no-work buffers until the bees appear no longer active (i.e., associated floral resources appear desiccated and no bees are seen flying for three consecutive days indicating dispersal from the area).

e) If Crotch's bumble bee are identified during species-specific surveys, the City shall pursue an Incidental Take Permit from CDFW. Take of any endangered, threatened, or candidate species that results from the project is prohibited, except as authorized by state law (California Fish and Game Code Sections 86, 2062, 2067, 2068, 2080, 2085; 14 CCR 786.9) under the California Endangered Species Act (CESA). Mitigation for direct impacts to Crotch's bumble bee will be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the project, or as otherwise determined through the Incidental Take Permit process.

f) Survey data shall be submitted by the Qualified Biologist to the California Natural Diversity Database (CNDDB) in accordance with the Memorandum of Understanding with CDFW, or Scientific Collecting Permit requirements, as applicable.

MM-BIO-8G **CDFW Fully Protected Species.** Take of CDFW fully protected species including white-tailed kite, light-footed Ridgway's rail, and California least tern may not occur except with take permit authorization from CDFW, and only under specific circumstances. Light-footed Ridgway's rail and California least tern are also listed as endangered by USFWS and would require federal take authorization if take is unavoidable.

If work is proposed at a component location where fully protected species have been identified during subsequent review to have a moderate or high potential, focused wildlife surveys would be required.

1) Prior to the issuance of any NTP, or pre-construction meeting, the ECP ED shall verify that the following project requirements regarding the fully protected species are shown on the construction plans where such construction occurs within suitable habitat for these species:

a) Impacts to fully protected species shall be fully avoided. For construction sites that support suitable habitat for fully protected species, a qualified biologist shall remain on site during all vegetation clearing and perform periodic site inspections (1–2 times/week) during grading and vegetation removal activities. Should a fully protected species nest be detected, a buffer of a minimum of 500 feet shall be established, and no activity shall occur within the buffer zone until the biologist determines and CDFW confirms that all chicks have fledged and are no longer reliant on the nest site.

MM-BIO-8H **Marine Mammals and Green Sea Turtles.** Prior to subsequent project level approval, as part of subsequent project-specific environmental review pursuant to CEQA, a hydroacoustic study would be required to determine if project components that require in-water pile driving have the potential to generate sound exposure levels exceeding the thresholds described in the following table.

Summary of Potentially Significant In-Water Sound Pressure Level Impacts

	Impact Threshold for Marine Fish (206 dB peak and 187 dB accumulated SEL)	Impact Threshold for Marine Mammals (160 dB_{rms} for impact; 120 dB_{rms} for vibratory)	Impact Threshold for Green Sea Turtles (166 dB_{rms})
Assumed Component Noise Levels (>5 meters of water)	Potentially Significant Hydroacoustic Impacts		
76–188 dB_{peak}	No	N/A	N/A
146–166 dB_{SEL}	Maybe[1]	N/A	N/A
166–176 dB_{rms}	N/A	Yes	Yes

Source: M&A 2017.

Notes: dB = decibel; SEL = sound exposure level; rms = root mean square; N/A = not applicable.

[1] Accumulated SEL is derived from the number of pile strikes ($SEL_{cumulative}$ = SEL + 10*log [# strikes]) as such, the starting SEL would dictate the number of pile strikes possible prior to exceeding the threshold of 187dB $SEL_{cumulative}$.

Should pile driving be found to result in sound exposure levels that would cause indirect hydroacoustic impacts on marine species through exceedance of approved thresholds in the table above, the following measures shall be followed, or similar measures as may be required by the National Marine Fisheries Service (NMFS):

A. Employ protected species observers (PSO). PSOs must be qualified, NMFS-approved PSOs.

B. Monitoring must take place from 30 minutes prior to initiation of pile driving activity (i.e., pre-start clearance monitoring) through 30 minutes post-completion of pile driving activity.

C. Pre-start clearance monitoring must be conducted during periods of visibility sufficient for the lead PSO to determine that the shutdown zones (as determined by hydroacoustic analysis) are clear of marine mammals and green sea turtles. Pile driving may commence following 30 minutes of observation when the determination is made that the shutdown zones are clear of marine mammals.

D. If a marine mammals or green sea turtles are observed entering or within the shutdown zones, pile driving activity must be delayed or halted.

E. If pile driving is delayed or halted due to the presence of a marine mammal or green sea turtle, the activity may not commence or resume until either the animal has voluntarily exited and been visually confirmed beyond the shutdown zone or 15 minutes have passed without re-detection of the animal.

F. Use soft start techniques when impact pile driving. Soft start requires contractors to provide an initial set of three strikes at reduced energy, followed by a 30-second waiting period, then two subsequent reduced energy strike sets. A soft start must be implemented at the start of each day's impact pile driving and at any time following cessation of impact pile driving for a period of 30 minutes or longer.

G. Noise attenuation: a bubble curtain must be used during impact pile driving. The bubble curtain must be operated as necessary to achieve optimal performance. At a minimum, the following performance standards shall be met:

   i. The bubble curtain must distribute air bubbles around 100 percent of the piling circumference for the full depth of the water column.

   ii. The lowest bubble ring must be in contact with the substrate for the full circumference of the ring, and the weights attached to the bottom ring shall ensure 100 percent substrate contact. No parts of the ring or other objects shall prevent full substrate contact.

   iii. Air flow to the bubblers must be balanced around the circumference of the pile.

H. Construction staff must avoid direct physical interaction with marine mammals or green sea turtle during construction activity. If a marine mammal or green sea turtle comes within 10 meters of such activity, operations must cease and vessels must reduce speed to the minimum level required to maintain steerage and safe working conditions, as necessary to avoid direct physical interaction.

Historical Resources

MM-CUL-1 **Historic American Engineering Record (HAER) "Like" Documentation.** Prior to issuance of any permits or any demolition of the Mission Beach Seawall, the City of San Diego shall initiate and sponsor the documentation of the Mission Beach Seawall and its setting through the preparation of HAER "Like" documentation. This documentation shall include digital photographs, a short-form report, and archiving as outlined below, developed in consultation with the City of San Diego. All work shall be conducted by an architectural historian who meets the 2008 Secretary of the Interior's Professional Qualifications Standards for architectural history and/or history (Qualified Architectural Historian). This mitigation measure is being proposed in compliance with CEQA and does not necessitate approval of this documentation through National Park Service (NPS) or the California Office of Historic Preservation. The HAER "Like" Short Form document shall be limited to the following:

1. Digital Photography: Prior to issuance of any permits or any demolition of the seawall, digital photographic documentation of the Mission Beach Seawall shall be prepared to the National Park Service's 2024 National Register of Historic Places and National Historic Landmarks Program Consolidated and Updated Photograph Policy. The photographer shall be familiar with the recordation of historical resources in accordance with NPS guidelines and digital photography. A minimum of 15 photographs shall be taken, detailing the overall site, select intact portions of the seawall, existing setting, and surrounding viewsheds. Drone photography and/or videography may also be used to capture aerial perspectives of the seawall in addition to digital photography. All photographs shall include a photo index, and field notes, and be identified and labeled using the NPS Consolidated and Updated Photograph Policy 2024.
2. Short-Form Report: In consultation with the City of San Diego, a Qualified Architectural Historian shall prepare a short-form report in conjunction with the large format photographs. The historic report will be formatted to Historic American Engineering Record Guidelines for Historical Reports and include historical background information, original or copies of architectural or engineering drawings, if available, maps, and historic photographs relevant to the Mission Beach Seawall.
3. Archiving: One copy of the final, archival quality documentation shall be provided to the San Diego History Center. Duplicate archival laser-copies (on acid-free paper) of the report and photographs shall be submitted to the City of San Diego. In summary one (1) full set of survey prints, negatives, and report and one duplicate archival copy of surveys are required. The HAER "Like" Short Format

documentation for the Mission Beach Seawall must be submitted to repositories within three months of Program's completion.

MM-CUL-2 **Development of Public Interpretation and Educational Display.** The City of San Diego shall develop and prepare public interpretation and educational materials to document and explain the importance of the Mission Beach Seawall to the City of San Diego's community and planning history. The display shall be designed in consultation with the project design team, a professional graphic designer, and a qualified historian or architectural historian who meets the Secretary of the Interior's Professional Qualifications Standards (Qualified Architectural Historian). Input and review of the content on the display must be completed in conjunction with the City of San Diego's Heritage Preservation staff.

The display shall include the following content:

- A narrative summary of the historical resource's significance, including its association with important events, persons, and/or architectural features.
- Archival photographs and/or drawings of the resource.
- A site map or diagram showing the original location and layout.
- A QR code or link to a digital archive with expanded content, such as oral histories, documents, or additional imagery, if available.

Historical ephemeral materials and exerts from historic contexts from technical reports prepared as part of the proposed Program and maps shall be included. The display should express the Mission Beach Seawall's association with the early development of Mission Beach and its innovative tongue and groove pilings design.

The interpretive and educational display shall be incorporated into the design of the proposed Program for public accessibility at the new seawall site. Specifics for establishing the appropriate medium to display this information shall be done in consultation with the Project proponent. The following performance standards for the display are required:

- The display shall be constructed of durable, weather-resistant materials and be designed to be accessible in accordance with ADA standards.
- The content shall be reviewed and approved by the City of San Diego prior to installation.
- The display shall be installed within three months of Project completion and maintained in good condition for a minimum of 20 years.

MM-CUL-3 **Incorporation of Historic Design Features into New Construction.** During the design phase of the Program's Restoration of the Seawall Bulkhead Element, City of San Diego Heritage Preservation staff will review all construction drawings to ensure the incorporation of the historic design features identified in the 1998 Mission Beach Boardwalk Project EIR/Environmental Assessment such as the pop-out walls which historically featured open balustrades, elevation of solid walls along the Boardwalk, and specific concrete color and finish. The Mission Beach Seawall will be restored to the condition that is required by the City of San Diego's historical standards consistent with the San Diego Municipal Code. This mitigation is to ensure that the quality of design will be at a minimum equal to the current structure.

MM-CUL-4 **Construction Monitoring**. The following shall be implemented to protect unknown archaeological resources and/or grave sites that may be identified during ground-disturbing activities associated with the construction or maintenance of the Rose Creek Bike Path Project Element and the Seawall Bulkhead Restoration Project Element.

I. Prior to Permit Issuance or Bid Opening/Bid Award

A. Entitlements Plan Check

1. Prior to permit issuance or Bid Opening/Bid Award, whichever is applicable, the Environmental Designee (ED) shall verify that the requirements for Archaeological Monitoring and Native American monitoring have been noted on the applicable construction documents through the plan check process.

B. Letters of Qualification have been submitted to ED

1. Prior to Bid Award, the applicant shall submit a letter of verification to ED identifying the Principal Investigator (PI) for the project and the names of all persons involved in the archaeological monitoring program, as defined in the City of San Diego Historical Resources Guidelines (HRG). If applicable, individuals involved in the archaeological monitoring program must have completed the 40-hour HAZWOPER training with certification documentation.

7. ED will provide a letter to the applicant confirming the qualifications of the PI and all persons involved in the archaeological monitoring of the project meet the qualifications established in the HRG.

8. Prior to the start of work, the applicant must obtain written approval from ED for any personnel changes associated with the monitoring program.

II. Prior to Start of Construction

A. Verification of Records Search

1. The PI shall provide verification to ED that a site-specific records search (1 mile radius) has been completed. Verification includes, but is not limited to a copy of a confirmation letter from South Coastal Information Center, or, if the search was in-house, a letter of verification from the PI stating that the search was completed.

2. The letter shall introduce any pertinent information concerning expectations and probabilities of discovery during trenching and/or grading activities.

3. The PI may submit a detailed letter to ED requesting a reduction to the ¼ mile radius.

B. PI Shall Attend Precon Meetings

1. Prior to beginning any work that requires monitoring; the Applicant shall arrange a Precon Meeting that shall include the PI, Native American consultant/monitor (where Native American resources may be impacted), Construction Manager (CM) and/or Grading Contractor, Resident Engineer (RE), Building Inspector (BI), if appropriate, and ED. The qualified Archaeologist and Native American Monitor shall attend any grading/excavation related Precon Meetings to make comments and/or suggestions concerning the Archaeological Monitoring program with the Construction Manager and/or Grading Contractor.

   a. If the PI is unable to attend the Precon Meeting, the Applicant shall schedule a focused Precon Meeting with ED, the PI, RE, CM or BI, if appropriate, prior to the start of any work that requires monitoring.

2. Acknowledgement of Responsibility for Curation (CIP or Other Public Projects)

   The applicant shall submit a letter to ED acknowledging their responsibility for the cost of curation associated with all phases of the archaeological monitoring program.

3. Identify Areas to be Monitored

   Prior to the start of any work that requires monitoring, the PI shall submit an Archaeological Monitoring Exhibit (AME) (with verification that the AME has been reviewed and approved by the Native American consultant/monitor when Native American resources may be impacted) based on the appropriate construction documents (reduced to 11x17) to

ED identifying the areas to be monitored including the delineation of grading/excavation limits.

The AME shall be based on the results of a site specific records search as well as information regarding the age of existing pipelines, laterals and associated appurtenances and/or any known soil conditions (native or formation).

ED shall notify the PI that the AME has been approved.

9. When Monitoring Will Occur

   a. Prior to the start of any work, the PI shall also submit a construction schedule to ED through the RE indicating when and where monitoring will occur.

   b. The PI may submit a detailed letter to ED prior to the start of work or during construction requesting a modification to the monitoring program. This request shall be based on relevant information such as review of final construction documents which indicate conditions such as age of existing pipe to be replaced, depth of excavation and/or site graded to bedrock, etc., which may reduce or increase the potential for resources to be present.

10. Approval of AME and Construction Schedule

    After approval of the AME by ED, the PI shall submit to ED written authorization of the AME and Construction Schedule from the CM.

III. During Construction

A. Monitor Shall be Present During Grading/Excavation/Trenching/ Habitat Restoration

1. The Archaeological Monitor shall be present full-time during all soil disturbing and grading/excavation/trenching activities which could result in impacts to archaeological resources as identified on the AME. **The Construction Manager is responsible for notifying the RE, PI, and ED of changes to any construction activities such as in the case of a potential safety concern within the area being monitored. In certain circumstances OSHA safety requirements may necessitate modification of the AME.**

2. The Native American consultant/monitor shall determine the extent of their presence during soil disturbing and grading/excavation/trenching activities based on the AME and provide that information to the PI and ED.

If prehistoric resources are encountered during the Native American consultant/monitor's absence, work shall stop and the Discovery Notification Process detailed in Section III.B-C and IV.A-D shall commence.

3. The PI may submit a detailed letter to ED during construction requesting a modification to the monitoring program when a field condition such as modern disturbance post-dating the previous grading/trenching activities, presence of fossil formations, or when native soils are encountered that may reduce or increase the potential for resources to be present.

4. The archaeological and Native American consultant/monitor shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR's shall be emailed by the CM to the RE the first day of monitoring, the last day of monitoring, monthly (**Notification of Monitoring Completion)**, and in the case of ANY discoveries. The RE shall forward copies to ED.

B. Discovery Notification Process

1. In the event of a discovery, the Archaeological Monitor shall direct the contractor to temporarily divert all soil disturbing activities, including but not limited to digging, trenching, excavating or grading activities in the area of discovery and in the area reasonably suspected to overlay adjacent resources and immediately notify the RE or BI, as appropriate.

2. The Monitor shall immediately notify the PI (unless Monitor is the PI) of the discovery.

3. The PI shall immediately notify ED by phone of the discovery, and shall also submit written documentation to ED within 24 hours by email with photos of the resource in context, if possible.

4. No soil shall be exported off-site until a determination can be made regarding the significance of the resource specifically if Native American resources are encountered.

C. Determination of Significance

1. The PI and Native American consultant/monitor, where Native American resources are discovered shall evaluate the significance of the resource. If Human Remains are involved, follow protocol in Section IV below.

a. The PI shall immediately notify ED by phone to discuss significance determination and shall also submit a letter to MMC indicating whether additional mitigation is required.

b. If the resource is significant, the PI shall submit an Archaeological Data Recovery Program (ADRP) and obtain written approval of the program from ED, CM and RE. ADRP and any mitigation must be approved by ED, RE and/or CM before ground disturbing activities in the area of discovery will be allowed to resume. **Note: If a unique archaeological site is also an historical resource as defined in CEQA Section 15064.5, then the limits on the amount(s) that a project applicant may be required to pay to cover mitigation costs as indicated in CEQA Section 21083.2 shall not apply.**

   i. Note: For pipeline trenching and other linear projects in the public Right-of-Way, the PI shall implement the Discovery Process for Pipeline Trenching projects identified below under "D."

c. If the resource is not significant, the PI shall submit a letter to ED indicating that artifacts will be collected, curated, and documented in the Final Monitoring Report. The letter shall also indicate that that no further work is required.

   i. Note: For Pipeline Trenching and other linear projects in the public Right-of-Way, if the deposit is limited in size, both in length and depth; the information value is limited and is not associated with any other resource; and there are no unique features/artifacts associated with the deposit, the discovery should be considered not significant.

   ii. Note, for Pipeline Trenching and other linear projects in the public Right-of-Way, if significance cannot be determined, the Final Monitoring Report and Site Record (DPR Form 523A/B) shall identify the discovery as Potentially Significant.

D. Discovery Process for Significant Resources – Pipeline Trenching and other Linear Projects in the Public Right-of-Way

The following procedure constitutes adequate mitigation of a significant discovery encountered during pipeline trenching activities or for other linear project types within the Public Right-of-Way including but not limited to excavation for jacking pits, receiving pits, laterals, and manholes to reduce impacts to below a level of significance:

1. Procedures for documentation, curation and reporting

   a. One hundred percent of the artifacts within the trench alignment and width shall be documented in-situ, to include photographic records, plan view of the trench and profiles of side walls, recovered,

photographed after cleaning and analyzed and curated. The remainder of the deposit within the limits of excavation (trench walls) shall be left intact.

b. The PI shall prepare a Draft Monitoring Report and submit to ED via the RE as indicated in Section VI-A.

c. The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) the resource(s) encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines. The DPR forms shall be submitted to the South Coastal Information Center for either a Primary Record or SDI Number and included in the Final Monitoring Report.

d. The Final Monitoring Report shall include a recommendation for monitoring of any future work in the vicinity of the resource.

IV. Discovery of Human Remains

If human remains are discovered, work shall halt in that area and no soil shall be exported off-site until a determination can be made regarding the provenance of the human remains; and the following procedures as set forth in CEQA Section 15064.5(e), the California Public Resources Code (Sec. 5097.98) and State Health and Safety Code (Sec. 7050.5) shall be undertaken:

A. Notification

1. Archaeological Monitor shall notify the RE or BI as appropriate, ED, and the PI, if the Monitor is not qualified as a PI. MMC will notify the appropriate Senior Planner in the Environmental Analysis Section (EAS) of the Development Services Department to assist with the discovery notification process.

2. The PI shall notify the Medical Examiner after consultation with the RE, either in person or via telephone.

B. Isolate discovery site

1. Work shall be directed away from the location of the discovery and any nearby area reasonably suspected to overlay adjacent human remains until a determination can be made by the Medical Examiner in consultation with the PI concerning the provenience of the remains.

2. The Medical Examiner, in consultation with the PI, will determine the need for a field examination to determine the provenience.

3. If a field examination is not warranted, the Medical Examiner will determine with input from the PI, if the remains are or are most likely to be of Native American origin.

C. If Human Remains **ARE** determined to be Native American

1. The Medical Examiner will notify the Native American Heritage Commission (NAHC) within 24 hours. By law, **ONLY** the Medical Examiner can make this call.
2. NAHC will immediately identify the person or persons determined to be the Most Likely Descendant (MLD) and provide contact information.
3. The MLD will contact the PI within 24 hours or sooner after the Medical Examiner has completed coordination, to begin the consultation process in accordance with CEQA Section 15064.5(e), the California Public Resources and Health & Safety Codes.
4. The MLD will have 48 hours to make recommendations to the property owner or representative, for the treatment or disposition with proper dignity, of the human remains and associated grave goods.
5. Disposition of Native American Human Remains will be determined between the MLD and the PI, and, if:
    a. The NAHC is unable to identify the MLD, OR the MLD failed to make a recommendation within 48 hours after being notified by the Commission, OR;
    b. The landowner or authorized representative rejects the recommendation of the MLD and mediation in accordance with PRC 5097.94 (k) by the NAHC fails to provide measures acceptable to the landowner, THEN
    c. To protect these sites, the landowner shall do one or more of the following:
        i. Record the site with the NAHC;
        ii. Record an open space or conservation easement; or
        iii. Record a document with the County.
    d. Upon the discovery of multiple Native American human remains during a ground disturbing land development activity, the landowner may agree that additional conferral with descendants is necessary to consider culturally appropriate treatment of multiple Native American human remains. Culturally appropriate treatment of such a discovery

may be ascertained from review of the site utilizing cultural and archaeological standards. Where the parties are unable to agree on the appropriate treatment measures the human remains and items associated and buried with Native American human remains shall be reinterred with appropriate dignity, pursuant to Section 5.c, above.

D. If Human Remains are **NOT** Native American

1. The PI shall contact the Medical Examiner and notify them of the historic era context of the burial.
2. The Medical Examiner will determine the appropriate course of action with the PI and City staff (PRC 5097.98).
3. If the remains are of historic origin, they shall be appropriately removed and conveyed to the San Diego Museum of Man for analysis. The decision for internment of the human remains shall be made in consultation with ED, EAS, the applicant/landowner, any known descendant group, and the San Diego Museum of Man.

V. Night and/or Weekend Work

A. If night and/or weekend work is included in the contract

1. When night and/or weekend work is included in the contract package, the extent and timing shall be presented and discussed at the precon meeting.
2. The following procedures shall be followed.

a. No Discoveries

In the event that no discoveries were encountered during night and/or weekend work, the PI shall record the information on the CSVR and submit to ED via email by 8AM of the next business day.

b. Discoveries

All discoveries shall be processed and documented using the existing procedures detailed in Sections III - During Construction, and IV – Discovery of Human Remains. Discovery of human remains shall always be treated as a significant discovery.

c. Potentially Significant Discoveries

If the PI determines that a potentially significant discovery has been made, the procedures detailed under Section III - During Construction and IV-Discovery of Human Remains shall be followed.

d. The PI shall immediately contact the RE and ED, or by 8AM of the next business day to report and discuss the findings as indicated in Section III-B, unless other specific arrangements have been made.

B. If night and/or weekend work becomes necessary during the course of construction

1. The Construction Manager shall notify the RE, or BI, as appropriate, a minimum of 24 hours before the work is to begin.

2. The RE, or BI, as appropriate, shall notify ED immediately.

C. All other procedures described above shall apply, as appropriate.

VI. Post Construction

A. Submittal of Draft Monitoring Report

1. The PI shall submit two copies of the Draft Monitoring Report (even if negative), prepared in accordance with the Historical Resources Guidelines (Appendix C/D) which describes the results, analysis, and conclusions of all phases of the Archaeological Monitoring Program (with appropriate graphics) to ED via the RE for review and approval within 90 days following the completion of monitoring. **It should be noted that if the PI is unable to submit the Draft Monitoring Report within the allotted 90-day timeframe as a result of delays with analysis, special study results or other complex issues, a schedule shall be submitted to ED establishing agreed due dates and the provision for submittal of monthly status reports until this measure can be met.**

a. For significant archaeological resources encountered during monitoring, the Archaeological Data Recovery Program or Pipeline Trenching Discovery Process shall be included in the Draft Monitoring Report.

b. Recording Sites with State of California Department of Parks and Recreation

The PI shall be responsible for recording (on the appropriate State of California Department of Park and Recreation forms-DPR 523 A/B) any significant or potentially significant resources encountered during the Archaeological Monitoring Program in accordance with the City's Historical Resources Guidelines, and submittal of such forms to the South Coastal Information Center with the Final Monitoring Report.

2. ED shall return the Draft Monitoring Report to the PI via the RE for revision or, for preparation of the Final Report.

3. The PI shall submit revised Draft Monitoring Report to ED via the RE for approval.
4. ED shall provide written verification to the PI of the approved report.
5. ED shall notify the RE or BI, as appropriate, of receipt of all Draft Monitoring Report submittals and approvals.

B. Handling of Artifacts

1. The PI shall be responsible for ensuring that all cultural remains collected are cleaned and catalogued
2. The PI shall be responsible for ensuring that all artifacts are analyzed to identify function and chronology as they relate to the history of the area; that faunal material is identified as to species; and that specialty studies are completed, as appropriate.

C. Curation of artifacts: Accession Agreement and Acceptance Verification

1. The PI shall be responsible for ensuring that all artifacts associated with the survey, testing and/or data recovery for this project are permanently curated with an appropriate institution. This shall be completed in consultation with ED and the Native American representative, as applicable.
2. When applicable to the situation, the PI shall include written verification from the Native American consultant/monitor indicating that Native American resources were treated in accordance with state law and/or applicable agreements. If the resources were reinterred, verification shall be provided to show what protective measures were taken to ensure no further disturbance occurs in accordance with Section IV – Discovery of Human Remains, Subsection C.
3. The PI shall submit the Accession Agreement and catalogue record(s) to the RE or BI, as appropriate for donor signature with a copy submitted to ED.
4. The RE or BI, as appropriate shall obtain signature on the Accession Agreement and shall return to PI with copy submitted to ED.
5. The PI shall include the Acceptance Verification from the curation institution in the Final Monitoring Report submitted to the RE or BI and ED.

D. Final Monitoring Report(s)

1. The PI shall submit one copy of the approved Final Monitoring Report to the RE or BI as appropriate, and one copy to ED (even if negative), within 90 days after notification from ED of the approved report.

2. The RE shall, in no case, issue the Notice of Completion until receiving a copy of the approved Final Monitoring Report from ED which includes the Acceptance Verification from the curation institution

MM-CUL-5 **Cultural Review of Future Development Projects.** Prior to the issuance of any discretionary permit for a future development projects that were not reviewed in the Cultural Resources Constraints Analysis for the Mission Bay Park Improvements Program (Appendix N) and that could directly and/or indirectly affect a cultural resource (i.e., archaeological and Tribal Cultural Resources), the City shall require the following steps be taken to determine (1) the potential presence and/or absence of cultural resources, and (2) the appropriate mitigation for any significant resources that may be impacted. For the purposes of CEQA review, a cultural resource is defined in CEQA Guidelines Section 15064.5. Tribal Cultural Resources are defined in PRC Section 21074.

I. Initial Determination

The City's Environmental Designee shall determine the potential presence and/or absence of cultural resources at the project site by reviewing site photographs and existing historic information (e.g., Archaeological Sensitivity Maps, the Archaeological Map Book, the California Historical Resources Inventory System, and the City's "Historical Inventory of Important Architects, Structures, and People in San Diego") and may conduct a site visit. A review of the cultural resources records search data (see Appendix N) shall be done at the initial planning stage of a project to ensure that cultural resources are avoided and/or impacts are minimized to the extent feasible in accordance with the City's Historical Resources Guidelines. The sensitivity levels described below shall guide the appropriate steps necessary to address the potential resources. Sensitivity ratings may be adjusted based on the amount of disturbance that has occurred, which may have previously impacted cultural resources, as well as new data available to the City.

A. High Sensitivity: indicates locations where significant cultural resources have been documented or would have the potential to be identified. High sensitivity resources include village and habitation sites and areas near fresh water sources. These resources may range from moderately complex to highly complex, with more defined living areas or specialized work space areas, and a large breadth of features and artifact assemblages. The potential for identification of additional resources in such areas would be high.

B. Moderate Sensitivity: Indicates that some cultural resources have been recorded within the area or the area was developed before 1984 when CEQA review may not have been applied. Moderate sensitivity resources consist of diversity or density of feature and artifact types (e.g., a moderately dense lithic scatter).

C. Low Sensitivity: Indicates areas where there is a high level of disturbance or development, and few or no previously recorded cultural resources are present based on records search results and due to the timing of development of the project site occurring after 1984 when CEQA would have been applied. Within these areas, the potential for additional resources to be identified would be low.

I. Phase I

Based on the results of the initial determination, if there is any evidence that the project area contains archaeological and/or Tribal Cultural Resources, a site-specific records search and/or survey may be required and shall be determined on a case-by-case basis by the City's Environmental Designee. If a cultural resources study is required, it shall be prepared consistent with the City's Historical Resources Guidelines. All individuals conducting any phase of the cultural resources program shall meet the professional qualifications in accordance with the City's Historical Resources Guidelines. The cultural resources study shall include the background research conducted as part of the initial determination. This includes a record search at the SCIC at San Diego State University. A review of the Sacred Lands File maintained by the NAHC shall also be conducted at this time. The cultural resources study shall include a field survey and/or an evaluation of significance, as applicable if cultural resources are identified, based on the City's Historical Resources Guidelines. Native American participation shall be required for all field work.

II. Phase II

Once a cultural resource (as defined in the PRC) has been identified, a significance determination shall be made. If a project were to impact areas identified as low sensitivity, it is assumed that any significant cultural resources no longer hold integrity or are not present. If a project impacts these areas, no additional mitigation measures shall be required.

If a project were to impact areas identified as moderate sensitivity, a site-specific records search and/or survey may be required on a case-by-case basis. If cultural resources are identified in the records search and/or survey, a significance evaluation for the identified cultural resources shall be required. If no significant resources are found and site conditions are such that there is no potential for further discoveries, then no further action shall be required. Resources found to be nonsignificant as a

result of a survey and/or assessment shall require no further work beyond documentation of the resources on the appropriate Department of Parks and Recreation site forms and inclusion of the results in the survey and/or assessment report. If no significant resources are found, but results of the initial evaluation indicate there is still a potential for resources to be present in portions of the property, then mitigation monitoring shall be required. If the resource has not been evaluated for significance, a testing plan shall be required. If the resource is determined to be significant, a testing plan, data recovery plan, and mitigation monitoring shall be required.

If a project were to impact areas identified as high sensitivity, a survey and testing program may be required by the qualified archaeologist to further define resource boundaries subsurface presence or absence and determine the level of significance. A thorough discussion of testing methodologies including surface and subsurface investigations can be found in the City's Historical Resources Guidelines. The results from the testing program shall be evaluated against the Significance Thresholds found in the City's Historical Resources Guidelines. If significant cultural resources are identified within the area of potential effects, the site may be eligible for local designation.

Preferred mitigation for direct and/or indirect impacts to cultural resources is to avoid the resource through project redesign. If the resource cannot be entirely avoided, all prudent and feasible measures to minimize harm shall be taken. Mitigation measures such as, but not limited to, a Research Design and Archaeological Data Recovery Program (ADRP), construction monitoring, site designation, capping, granting of deeds, designation of open space, and avoidance and/or preservation shall be required and shall be determined by the City's Environmental Designee on a case-by-case basis.

III. Phase III

Archaeological Data Recovery Program

If a cultural resource is found to be significant and preservation is not an option, a Research Design and ARDP shall be required, which includes a Collections Management Plan for review and approval by the City's Environmental Designee. The ADRP shall be based on a written research design and is subject to the provisions as outlined in PRC Section 21083.2. The ADRP shall be reviewed and approved by the City's Environmental Designee prior to distribution of a draft CEQA document.

Local Designation of Resources

The final cultural resource evaluation report shall be submitted to Historical Resources Board (HRB) staff for designation. The final cultural resource evaluation report and supporting documentation will be used by HRB staff in consultation with qualified City staff to ensure that adequate information is available to demonstrate eligibility for designation under the applicable criteria.

Monitoring and Archaeological Resource Reports

Archaeological monitoring may be required during building demolition and/or construction grading when significant cultural resources are known or suspected to be present on a site but cannot be recovered prior to grading due to obstructions such as, but not limited to, existing development, dense vegetation, or if a data recovery did not reduce the impact to the resource. Monitoring shall be documented in a consultant site visit record.

Native American participation shall be required for all subsurface investigations, including geotechnical testing and other ground disturbing activities whenever a Tribal Cultural Resource or any archaeological site. In the event that human remains are encountered during data recovery and/or a monitoring program, the provisions of PRC Section 5097 shall be followed. In the event that human remains are discovered during project grading, work shall halt in that area and the procedures set forth in the PRC (Section 5097.98) and State Health and Safety Code (Section 7050.5), and in the federal, state, and local regulations described above shall be undertaken. These provisions shall be outlined in the Mitigation Monitoring and Reporting Program included in a subsequent project-specific environmental document. The Most Likely Descendent shall be consulted during the preparation of the written report, at which time they may express concerns about the treatment of sensitive resources.

Archaeological Resource Reports shall be prepared by qualified professionals as determined by the criteria set forth in Appendix B of the City's Historical Resources Guidelines. In the event that a cultural resource deposit is encountered during construction monitoring, a Collections Management Plan shall be required in accordance with the project's Mitigation Monitoring and Reporting Program. The disposition of human remains and burial related artifacts that cannot be avoided or are inadvertently discovered is governed by State (i.e., AB 2641 [Coto] and NAGPRA of 2001 [Health and Safety Code 8010-8011]) and federal (i.e., federal NAGPRA United States Code 3001-3013]) law, and must be treated in a dignified and culturally appropriate manner with respect for the deceased individual(s) and their descendants. Any human bones and associated grave goods of Native American origin

shall be turned over to the appropriate Native American group for repatriation, as identified by the NAHC.

Arrangements for long-term curation must be established between the applicant/property owner and the consultant prior to the initiation of the field reconnaissance, and must be included in the archaeological survey, testing and/or data recovery report submitted to the City for review and approval. Curation must be accomplished in accordance with the California State Historic Resources Commission's Guidelines for the Curation of Archaeological Collection (dated May 7, 1993) and, if federal funding is involved, 36 CFR 60. Additional information regarding curation is provided in Section II of the Historical Resources Guidelines.

Noise

MM-NOI-1 **Noise Abatement**. During the construction of the following Program components, the City shall install noise abatement in order to result in adequate noise reduction at the nearest noise sensitive receptor, in accordance with the table below, Noise Abatement Component Requirements.

Noise Abatement Component Requirements

Component	Minimum Construction Noise Reduction (dBA)	Nearest Noise-Sensitive Receptors	Minimum Barrier Height Required (Feet)
Wetland and Water Quality Improvements Element – Tecolote Creek and Fiesta Island Causeway Component	12.9	Along Mission Beach Boardwalk, east of the component	9
Shoreline Restoration Element – Vacation Island Northwest	7.4	On Sunset Road and Sands Drive, along the southern and eastern component boundaries	8
Shoreline Restoration Element – Vacation Island Northeast – Ingraham Street	3.7	On Hummingbird Lane, along the southern and eastern component boundaries	7
Shoreline Restoration Element – Crown Point	9.2	On Riviera Drive, along the eastern component boundaries	11
Shoreline Restoration Element – West Sail Bay	14	Along Bayside Walk, east of Mission Boulevard	9

Noise Abatement Component Requirements

Component	Minimum Construction Noise Reduction (dBA)	Nearest Noise-Sensitive Receptors	Minimum Barrier Height Required (Feet)
Shoreline Restoration Element – Bonita Cove	10.2	Along Bayside Lane and San Fernando Place, west of the element boundary	9
Bicycle and Pedestrian Improvements Element – Rose Creek Bike Path	15.5	Along Figueroa Boulevard, Magnolia Avenue, and Hornblend Street, east of the element boundary	9
Bicycle and Pedestrian Improvements Element – Ocean Beach Bike Path	9.9	Along Point Loma Boulevard, south of the element boundary	8
Restoration of Seawall Bulkhead Element – Segment A	15.7	Along Ocean Front Walk/Mission Beach Boardwalk, east of the element boundary	13
Restoration of Seawall Bulkhead Element – Segment B	15.7	Along Ocean Front Walk/Mission Beach Boardwalk, east of the element boundary	13
Restoration of Seawall Bulkhead Element - Segment C	15.5	Along Ocean Boulevard and Thomas Avenue, east of the element boundary	10
Restoration of Seawall Bulkhead Element – Access Improvements	7.9	Along Ocean Front Walk/Mission Beach Boardwalk	8

The City shall install noise abatement during the construction of each element listed in Table 10-2 during the respective phases specified in Section 4.10.4, Impacts Analysis on the site boundary fencing (or within, as practical and appropriate) in the form of sound blankets or comparable temporary solid barriers to occlude construction noise emission between the site (or specific equipment operation as the situation may define) and the noise-sensitive receptor(s) of concern (i.e., where the line-of-sight is blocked). By way of example, suspended sound blankets, field-erected plywood sheeting, or comparable temporary solid or flexible but sufficiently massive barriers (of minimum sound transmission class rating of 25) would occlude construction noise emission between the site and the noise-sensitive receptor(s) of concern.

In addition to the noise abatement component standards presented in Table 10-2 and discussed above, the following measures should be considered as supplemental abatement strategies to sufficiently reduce construction noise emission:

- ***Administrative controls*** (e.g., reduce operating time of equipment and/or prohibit usage of equipment type[s] within certain distances to a nearest receiving occupied off-site property).
- ***Engineering controls*** (change equipment operating parameters [e.g., speed, capacity], or install features or elements that otherwise reduce equipment noise emission [e.g., upgrade engine exhaust mufflers]).

Tribal Cultural Resources

MM-CUL-4 Construction Monitoring.

MM-CUL-5 Cultural Review of Future Development.

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