

Appendix D. Biological Resources Technical Report

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Biological Resources Technical Report

De Anza Natural Amendment to the Mission Bay Park Master Plan

~~March~~ November 2023

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Acronyms and Abbreviations

°F	degrees Fahrenheit
amsl	above mean sea level
ASMD	area-specific management directive
BMP	best management practice
Campland	Campland on the Bay
CCA	California Coastal Act
CCC	California Coastal Commission
CDFG	California Department of Fish and Game
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CFGC	California Fish and Game Code
City	City of San Diego
CNPS	California Native Plant Society
County	County of San Diego
COZ	Coastal Overlay Zone
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB	decibel
dBrms	decibel (root mean squared)
ESA	Environmental Science Associates
ESL	Environmentally Sensitive Lands
FESA	Federal Endangered Species Act
GDP	General Development Plan
GIS	geographic information system
GPS	Global Positioning System
Harris	Harris & Associates
KFMR/NWP	Kendall-Frost Marsh Reserve/Northern Wildlife Preserve
LDC	Land Development Code
LUAGs	Land Use Adjacency Guidelines
MBPMP	Mission Bay Park Master Plan
MBTA	Migratory Bird Treaty Act
MBTAG	Mission Bay Tennis Center, Athletic Fields, and Golf Course
MHPA	Multi-Habitat Planning Area
MM	Mitigation Measure
MSCP	Multiple Species Conservation Program
NPDES	National Pollutant Discharge Elimination System
PEIR	Program Environmental Impact Report
Porter-Cologne	Porter-Cologne Water Quality Control Act
RWQCB	Regional Water Quality Control Board
SAP	City of San Diego Multiple Species Conservation Program Subarea Plan
SDBG	Land Development Code—Biology Guidelines
SEL	sound exposure level
SSA	Special Study Area
USACE	U.S. Army Corps of Engineers

USFWS
WBWG
WL

U.S. Fish and Wildlife Service
Western Bat Working Group
Watch List

Executive Summary

Harris & Associates (Harris) has prepared this Biological Resources Technical Report in support of the Program Environmental Impact Report (PEIR) for the proposed De Anza Natural Amendment to the Mission Bay Park Master Plan (project). The project area consists of approximately 314 acres of land and approximately 191.2 acres of open water and tidal channel for a total of 505.2 acres. The project area includes the Kendall-Frost Marsh Reserve/Northern Wildlife Preserve (KFMR/NWP), Campland on the Bay (Campland), Pacific Beach Tennis Club athletic fields, Mission Bay Golf Course and Practice Center, and De Anza Cove area, including the vacated mobile home park and supporting infrastructure, Mission Bay RV Resort, public park, public beach, parking, and open water areas. The project area is entirely within the Coastal Overlay Zone. The western portion of the project area that includes the KFMR/NWP is partially within the Multi-Habitat Planning Area (MHPA) of the City of San Diego's (City's) Multiple Species Conservation Program (MSCP) Subarea Plan (SAP). The project includes recommendations from the Mission Bay Park Master Plan (MBPMP) pertaining to the project area to serve local and regional recreation needs while preserving the natural resources of the De Anza Cove area. The project aims to expand the park's natural habitat and improve water quality through the creation of additional wetlands while providing nature-based solutions to protect the City against the risk of climate change which is in line with the Climate Resilient SD Plan (Policy TNE-3). The project would enhance the existing regional parkland areas through a variety of uses, including low-cost visitor guest accommodations (recreational vehicles and other low-cost camping facilities), active and passive recreational opportunities to enhance public use of the area, and improved access to areas designated for recreational use. The project seeks to implement the recommendations of the adopted MBPMP.

The City received a Supplemental Environmental Project grant from the Regional Water Quality Control Board (RWQCB) that funds the inclusion of an additional project alternative in the project PEIR that would expand habitat restoration opportunities in the project area. The inclusion of an expanded wetland project alternative in the PEIR gives City decision-makers the opportunity to consider in depth the scope and scale of future wetland restoration in northeastern Mission Bay. As a result, the alternative project design, herein referred to as the "Wetlands Optimized Alternative," is analyzed in this report at the same level of detail as the project to support the PEIR analysis. Similar to the project, the Wetlands Optimized Alternative would include a combination of habitat restoration, active recreation, low-cost guest visitor accommodations, open beach, and regional parkland and would modify the open water portions of De Anza Cove. Compared to the project, the Wetlands Optimized Alternative would consist of the establishment of ~~34.1~~ 25.8 acres of additional functional wetlands (low-mid-high wetland/salt marsh and mudflats) and would reduce the overall acreage of the open water portions of De Anza Cove to 93 acres.

Information on observed sensitive biological resources and those with the potential to occur in the project area was collected and analyzed through a review of existing maps, literature, resource

databases, studies conducted by Harris, and documentation of biological studies conducted by others in the project area. General biological reconnaissance surveys were conducted by Harris in July and October 2022 to confirm previously mapped vegetation communities, document observed plant and wildlife species, and evaluate the potential for occurrence of sensitive plant and wildlife species. Vegetation mapping, program-level and formal jurisdictional delineations, and biological resources reconnaissance surveys were conducted in 2016 by Environmental Science Associates (ESA), AECOM, and Nordby Biological Consulting. Zembal et al. (2015a, 2016) conducted focused surveys for light-footed Ridgway's rail (*Rallus longirostris levipes*) in 2015 and 2016. Focused surveys for Belding's savannah sparrow (*Passerculus sandwichensis beldingi*) were conducted by Zembal et al. (2016) in 2015. Between 2010 and 2012, Greer (2014) conducted focused surveys for wandering skipper (*Panoquina errans*). In 2018, Dudek conducted a formal jurisdictional delineation in a section of the project area that had not been covered by previous delineation efforts and performed focused eelgrass (*Zostera marina*) surveys in Mission Bay. This report documents the results of the Harris biological reconnaissance surveys, confirmation of previously recorded data (where feasible), reviews of previous studies and survey results, and a program-level analysis of the potential impacts that could occur to biological resources as a result of project implementation.

Thirteen vegetation communities and/or land cover types have been identified in the project area. The native vegetation and wetland communities in the project area are disturbed wetland (Arundo), disturbed freshwater marsh, southern coastal salt marsh, open water, eelgrass beds, tidal channel, salt panne, mudflat, southern foredunes, and Diegan coastal sage scrub. One non-native vegetation community, non-native grassland, and two land cover types, disturbed land and developed land, are mapped in the project area.

The aquatic resources delineations conducted in 2016 and 2018 determined that a total of 275.36 acres of wetlands and non-wetland waters occur in the project area. These aquatic resources are potentially under the jurisdiction of U.S. Army Corps of Engineers (USACE) and RWQCB, California Coastal Commission (CCC), California Department of Fish and Wildlife (CDFW), and/or wetlands regulated by the City.

Four sensitive plant species detected in the project area during biological surveys in 2016, 2018, and 2022 include Palmer's frankenia (*Frankenia palmeri*), San Diego marsh-elder (*Iva hayesiana*), southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*), and California seablite (*Suaeda californica*). Two sensitive plant species, estuary seablite (*Suaeda esteroa*) and Nuttall's acmispon (*Acmispon prostratus*), were determined to have high potentials to occur in the project area but were not identified during the biological resources surveys.

A total of 27 sensitive wildlife species were observed in the project area during the 2015, 2016, 2018, and 2022 biological surveys: American peregrine falcon (*Falco peregrinus anatum*),

Belding's savannah sparrow, black skimmer (*Rynchops niger*), black tern (*Chlidonias niger*), brant (*Branta bernicla*), California brown pelican (*Pelecanus occidentalis californicus*), California gull (*Larus californicus*), California horned lark (*Eremophila alpestris actia*), California least tern (*Sternula antillarum browni*), Caspian tern (*Hydroprogne caspia*), Clark's marsh wren (*Cistothorus palustris clarkae*), common loon (*Gavia immer*), Cooper's hawk (*Accipiter cooperii*), Costa's hummingbird (*Calypte costae*), double-crested cormorant (*Phalacrocorax auritus*), elegant tern (*Thalasseus elegans*), light-footed Ridgway's rail, long-billed curlew (*Numenius americanus*), monarch butterfly (*Danaus plexippus*), northern harrier (*Circus hudsonius*), osprey (*Pandion haliaetus*), reddish egret (*Egretta rufescens*), redhead (*Aythya americana*), rufous hummingbird (*Selasphorus rufus*), Southern California legless lizard (*Anniella stebbinsi*), wandering skipper (*Panoquina errans*), and white-tailed kite (*Elanus leucurus*). Two sensitive wildlife species, northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) and Mexican long-tongued bat (*Choeronycteris mexicana*), were determined to have a high potential to occur in the project area but were not observed during the biological resources surveys. The project area was determined to have a high potential to support nesting birds and raptors protected under California Fish and Game Code (CFGC) and Migratory Bird Treaty Act (MBTA), as well as sensitive roosting bats.

The project is required to be in compliance with all federal, state, and local regulations applicable to biological resources, including jurisdictional aquatic resources, as a condition of approval. The project could result in potentially significant direct and indirect impacts to sensitive plant and wildlife species, including sensitive roosting bats, and potentially cause the introduction of invasive species. The project could result in potential impacts to 11 sensitive vegetation communities, including wetlands. This includes impacts to wetlands and non-wetland waters regulated by the USACE, RWQCB, CCC, CDFW, and City. Mitigation would include the following measures: focused sensitive plant surveys, monitoring by a qualified biologist, adherence to required mitigation ratios for compensatory mitigation, eelgrass beds creation, revegetation of native habitats, and pre-construction hydroacoustic surveys. All potentially significant impacts would be reduced to a less than significant level with implementation of mitigation measures. Consistency with federal, state, and local regulations and the application of mitigation measures would ensure that the project is consistent with the General Planning Policies and Design Guidelines, General Management Directives, and Area-Specific Management Directives (ASMDs) in the MSCP SAP, the MHPA Land Use Adjacency Guidelines, and the City's General Plan Conservation and Recreation Elements and would not result in cumulatively considerable impacts to biological resources.

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Section 1 Introduction

Harris & Associates (Harris) was contracted by the lead agency to conduct desktop literature reviews and reconnaissance-level biological surveys in support of the Program Environmental Impact Report (PEIR) for the proposed De Anza Natural Amendment to the Mission Bay Park Master Plan and associated discretionary actions (project) in the City of San Diego (City), California.

1.1 Purpose of the Report

The purpose of this Biological Resources Technical Report is to document the biological resources present in the project area; identify potential impacts to special-status biological resources associated with implementation of the project; and document avoidance, minimization, and/or mitigation measures consistent with federal, state, and local rules and regulations, including the City’s current Municipal Code, Land Development Code—Biology Guidelines (SDBG) (City of San Diego 2018a). This report includes an introduction; a discussion of environmental setting; a project description; a summary of the applicable federal, state, and local regulations applicable to biological resources; methods for the literature review and surveys conducted for the project, including survey limitations; a description and analysis of existing biological resources, including sensitive biological resources; an analysis of potential project impacts, including cumulative impacts; and mitigation required to reduce potential impacts from project implementation to below a level of significance.

The term “biological resources” refers to plant species, wildlife species, vegetation communities, and aquatic resources in and adjacent to the project area. For the purposes of this report, sensitive biological resources are those defined as follows: (1) species designated as endangered, threatened, rare, protected, sensitive, or species of special concern according to the U.S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW), California Native Plant Society (CNPS), or applicable regional plans, policies, or regulations needs due to limited distribution, limited numbers, or significant population declines associated with natural or human-made causes; (2) species and habitat types recognized by local and regional resource agencies as special status; (3) habitats or vegetation communities that are unique, are of relatively limited distribution, or are of particular value to wildlife; (4) wildlife corridors and habitat linkages; or (5) biological resources that may or may not be considered special status but are regulated under local, state, and/or federal laws.

This report discusses potential impacts, avoidance areas, and mitigation measures (MMs) applicable to biological resources associated with implementation of the project in accordance with the federal Endangered Species Act (FESA); California Endangered Species Act (CESA) (California Fish and Game Code, Section 2050 et seq.); California Environmental Quality Act (CEQA); Clean Water Act (CWA); Porter-Cologne Water Quality Control Act (Porter-Cologne); Migratory Bird Treaty Act (MBTA); Sections 1600, 1602, 3511, and 4700 of the CFGC; California

Coastal Act (CCA); and the City's Multiple Species Conservation Program (MSCP) Subarea Plan (SAP) (City of San Diego 1997), the City's Land Development Code (LDC), the City's Environmentally Sensitive Lands (ESL) regulations, and the City's SDBG.

Section 2 Environmental Setting

The following is a description of the existing conditions in the project area.

2.1 Project Location

The project area is in the northeastern corner of Mission Bay Park in the City of San Diego (Appendix A, Figures; Figure 1, Regional Location). The project area consists of approximately 314 acres of land and approximately 191.2 acres of open water for a total of 505.2 acres. The project area includes the Kendall-Frost Marsh Reserve/Northern Wildlife Preserve (KFMR/NWP), Campland on the Bay (Campland), Pacific Beach Tennis Club athletic fields, Mission Bay Golf Course and Practice Center, and De Anza Cove area, including the vacated mobile home park and supporting infrastructure, Mission Bay RV Resort, public park, public beach, parking, and water areas (Figure 2, Project Location). The project area is in the La Jolla U.S. Geological Survey 7.5-minute quadrangle map. According to the City's General Plan Land Use Map (Figure LU-2 in City of San Diego 2018b), the project is in an area that is designated as Park, Open Space, and Recreation. The western portion of the project area that includes the KFMR/NWP is partially within the Multi-Habitat Planning Area (MHPA) of the City's MSCP SAP (Figure 2).

2.2 Project Description

The project includes recommendations from the Mission Bay Park Master Plan (MBPMP) pertaining to serve local and regional recreation needs while preserving the natural resources of the De Anza Cove area. The project aims to expand the park's natural habitat and improve water quality through the creation of additional wetlands while providing nature-based solutions to protect the City against climate change-related risks and to be consistent with the Climate Resilient SD Plan. The project would enhance the existing regional parkland through a variety of uses, including low-cost visitor guest accommodations (recreational vehicles and other low-cost camping facilities), active and passive recreational opportunities to enhance public use of the area, and improved access to areas designated for recreational use. Finally, the project would recognize the history and ancestral homelands of the Iipay-Tipay Kumeyaay people and provide opportunities to partner and collaborate on future planning and restoration of the area. The project seeks to implement the recommendations of the MBPMP. The following discussion describes the components of the project, which are analyzed as they pertain to biological resources in this report at a program level. Figure 3, Site Plan, illustrates the proposed land uses and improvements included in the project.

2.2.1 Kendall-Frost Marsh Reserve/Northern Wildlife Preserve Area

The project would include enhancement and restoration of the existing KFMR/NWP and the expansion of wetlands currently occupied by Campland (Figure 3). The project would follow the

MBPMP recommendation of replacing the existing Campland area with expanded marshland/habitat area, which would include a combination of mudflats, wetlands, and upland habitats. The total expanded marshland/habitat area would be approximately ~~140.5~~ 138.3 acres. The project would also maintain the existing University of California San Diego (UC San Diego) Biological Research Field Station facility in the northwestern corner of the KFMR/NWP, which allows for study and interpretation of the local environment, focusing on the estuarine and bay habitats of Mission Bay. ~~The project would also allow a future environmental education and interpretive nature facility along Pacific Beach Drive in the KFMR/NWP. The facility would be above the marsh and buffered from the marsh.~~

2.2.2 Mission Bay Tennis Center, Athletic Fields, and Golf Course

The northern area currently contains active recreational facilities. Active recreation areas are meant to support land-based active recreational pursuits, including sand volleyball, pickleball, tennis, walking, cycling, and inline/roller skating. The project would incorporate a range of recreational uses, with compatible user groups that would share the illuminated sports fields. The active recreation areas would include a facility with tennis and pickleball courts, which potentially includes the Pacific Beach Tennis Club, and would potentially share infrastructure like parking and a clubhouse with other active recreation and sports users, such as Mission Bay Little League. A change or consolidation of golf facilities would potentially allow for more athletic fields and courts. 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. A boat facility and a shared clubhouse are sited on the northern shore of De Anza Cove, along with 1.1 acres of water use for non-motorized boats and an Interpretive Nature Center and shared parking/service infrastructure. In addition, several facilities, discussed below, would be upgraded.

The combination and layout of recreation and athletic facilities would be designed during the General Development Plan (GDP) process and at the time of redevelopment and implementation of project enhancements, and one or more GDPs could cover different areas in the project area.

2.2.3 De Anza Cove Area

The De Anza Cove area is south of North Mission Bay Drive and east of the Rose Creek inlet. The land uses proposed in this area include expanded marshland/habitat, low-cost visitor guest accommodations, regional parkland, upland (dune, sage) and buffer areas, active recreation, open beach, two leased areas for boat users/rentals, and multi-use bike paths, which are further discussed below (Figure 3).

2.2.3.1 Expanded Marshland/Habitat

The expanded marshland/habitat area would be composed of high-, mid-, and low-salt marsh areas, mudflats, and subtidal areas, creating a natural interface with De Anza Cove and enhancing water

quality in the bay (Figure 3). A key strategy from the MBPMP is to locate wetlands as water quality improvement features immediately adjacent to the existing storm drain outfalls in the existing eastern portion of De Anza Cove. The intent of the expanded wetlands is to enhance the natural environment for wildlife, offset impacts to other disturbed local environments, and provide climate resiliency benefits.

2.2.3.2 Low-Cost Visitor Guest Accommodations

The project would place low-cost visitor guest accommodations on the eastern side of Rose Creek, buffered by upland vegetation, and would allocate 48.5 acres for RVs, cabins, or other eco-friendly accommodations. This area would also include open space and associated facilities consistent with camping accommodations (Figure 3).

2.2.3.3 Regional Parkland, Open Beach, Leased Areas, and Multi-Use Bike Paths

The regional parkland use supports activities such as picnicking, kiteflying, Frisbee games, informal sports, walking, jogging, kids' play, bicycling, and skating. The existing regional parkland would be enhanced with recreational amenities and access to the multi-use path that connects the project area to points north, west, and east. A sandy beach area at the northern and western edges of De Anza Cove would be adjacent to the low-cost visitor guest accommodation use and the boating use. The beach area would be protected by buffers/safety measures that would delineate the edges/extents of the non-motorized boat use area. The multi-use path would allow for pedestrians and cyclists to connect with points west, north, and east. The multi-use path would itself be a feature for users to passively recreate, view the marshes, and have distant views of Mission Bay.

Within the regional parkland areas, park amenities could include the multi-use path, as well as “open green” areas, children’s play areas, surface parking, restrooms, and picnic shelters to support the recreational activities. The project would also allow a future environmental education and interpretive nature facility.

2.2.3.4 Upland (Dune, Sage) and Buffer Areas

The upland (dune, sage) and buffer areas would accommodate the proposed multi-use path with educational signage and, in some instances, mounded landforms. The mounded landforms would feature native coastal sage, dune, and other native plants that would be seen and experienced from the waterfront multi-use path. Within this area, passive recreation amenities such as overlooks, pathways, picnic areas, and interpretive signs could be accommodated. These areas would serve as a complement to the natural setting of the low-cost visitor guest accommodations and the beach areas on the cove, and the upland plantings would serve as a buffer to the wetland habitats.

2.2.3.5 Water Quality Design Features

Water quality design features are proposed along the edges of the active recreational areas. The proposed water quality detention basins would be of differing sizes and would capture and treat stormwater before flowing into Mission Bay. New water quality basins would be located to treat the entire project area in accordance with local and state requirements.

The water quality detention basins would be designed with a sediment forebay, a height-appropriate embankment specific for each area of treatment, and a base of the basin to reduce sediment and erosion at the outflow. Native plants would be used to reduce sediment and total suspended solids from stormwater. Additional water quality-enhancing features would include vegetated areas bordering all development areas to further reduce stormwater contamination, including debris and sediment, from reaching Mission Bay.

In addition to water quality detention basins, the project would incorporate future site-specific design features and best management practices (BMPs) to enhance water quality. These BMPs would include native plants for landscaping, which would not require fertilizers, to reduce the potential for added nutrients into nearby water bodies, as well as efficient irrigation practices to reduce nutrient runoff. The project would incorporate storm drainage signage featuring a statement such as “NO DUMPING” or “DRAINS TO OCEAN” to discourage illegal dumping by visitors.

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.

2.2.3.6 Surface Parking

Surface parking areas are proposed in the project area. Parking would be in conjunction with the athletic areas and within the footprint of the low-cost visitor guest accommodation area. Additionally, surface parking lots accessible from North Mission Bay Drive would be provided to serve the proposed leases, athletic areas, and the regional parkland area at De Anza Cove. Parking lots associated with the athletics/aquatics area would be accessible from both North Mission Bay Drive and Grand Avenue. Overall, the project’s parking areas and interior parking accessways would be designed during the GDP process and at the time of redevelopment and implementation of project enhancements.

2.2.3.7 Circulation and Access

Circulation adjacent to and in the project area consists of vehicular, watercraft, and multi-use pathways for pedestrians and bicyclists.

2.2.3.8 Vehicular Circulation and Access

Vehicular access to the project area would be provided from Pacific Beach Drive, Grand Avenue, and North Mission Bay Drive. Service roads, vehicular access, and parking would be in areas proposed for low-cost visitor guest accommodations, regional parkland, boating, and active recreation.

2.2.3.9 Watercraft Access

Watercraft access would be provided at the eastern end of De Anza Cove to the proposed boat rental facility. The existing boat ramp at the western end of De Anza Cove would be removed, and non-motorized personal watercraft would have access near the boat rental facility.

2.2.3.10 Utilities and Infrastructure Improvements

Details of the utilities and infrastructure improvements would depend on the future site-specific design details of the project, which are not known at this time. Existing utilities are currently in the project area and connect to the City's infrastructure. More specifically, stormwater drains and pipes in the project area connect to the City's infrastructure to the north. Several stormwater drains are in parking areas and along access roadways. The project area is connected to the City's municipal sewer and water system via underground pipelines that connect the project area infrastructure to the City's system to the north. The existing pipelines at the De Anza Cove portion of the project area are proposed to remain in place and would be capped or used depending on future design details.

2.3 Wetlands Optimized Alternative Description

The City received a Supplemental Environmental Project grant from the Regional Water Quality Control Board (RWQCB) that funds the inclusion of an additional project alternative in the project PEIR that would expand habitat restoration opportunities. The inclusion of an expanded wetland project alternative in the PEIR gives City decision-makers the opportunity to consider in depth the scope and scale of future wetland restoration in northeastern Mission Bay. As a result, the alternative project design, herein referred to as the "Wetlands Optimized Alternative," is analyzed in this report at the same level of detail as the project to support the PEIR analysis.

Similar to the project, the Wetlands Optimized Alternative would include a combination of habitat restoration, active recreation, low-cost visitor guest accommodations, open beach, and regional parkland and would modify the open water portions of De Anza Cove. Overall, the Wetlands Optimized Alternative would include additional enhancement opportunities compared to the project (Figure 4, Wetlands Optimized Alternative). This alternative would provide approximately 250.9 acres of expanded marshland habitat, including 31.1 acres at the former Campland and 133 acres of other new wetlands. The alternative also increases the upland habitat to 46.1 acres compared to ~~37.4~~ 36.7 acres under the project. The Wetlands Optimized Alternative would further reduce the amount of active recreational activities to 49.9 acres, which would be replaced with

additional regional parkland opportunities for a total of 30.8 acres compared to the ~~26.3~~ 23.4 acres under the project. Approximately 27.4 acres of low-cost visitor guest accommodations would be provided under this alternative. The southern portion of the low-cost visitor guest accommodation area would be enhanced with wetland and upland habitat. In addition, the Wetlands Optimized Alternative would reduce the overall acreage of open water in De Anza Cove to 93 acres compared to the ~~95.95~~ acres under the project.

2.4 Land Use

2.4.1 Existing Land Uses

The existing land uses and associated acreages in the project area are described in Table 1, Existing Land Use Acreages, and illustrated on Figure 5, Existing Land Uses.

Table 1. Existing Land Use Acreages

Land Use	Acres
KFMR/NWP (land and water)	88
Campland on the Bay – Land	45.8
De Anza Cove Area – Land	103.3
Mission Bay Tennis Center, Athletic Fields, and Golf Course	62.6
Open Water	191.2
Roads and Right-of-Way	14.3
Total	505.2

Notes: KFMR/NWP = Kendall-Frost Marsh Reserve/Northern Wildlife Preserve

The KFMR/NWP, as illustrated on Figure 5, is approximately 88 acres and bordered to the west and north by residential development, to the east by Campland, and to the south by Mission Bay. The KFMR/NWP mostly consists of vegetated wetland. Campland is approximately 45.8 acres, including land and water uses, and is directly east of KFMR/NWP. Campland is on City-owned land and is currently leased and used as a privately operated RV and tent camping area. Condominiums are adjacent to Campland along the northern and western boundaries. The De Anza Cove area is approximately 103.3 acres and is directly east of Campland and Rose Creek and south of North Mission Bay Drive. The De Anza Cove area consists of an abandoned mobile home park and supporting infrastructure (e.g., roads, utilities, parking lots, and driveways), Mission Bay RV Resort (an existing campground for 260 RV sites with limited on-site amenities), Mission Bay Park area, and a public beach and parking area. North Mission Bay Drive bisects the De Anza Cove area and recreational areas to the north. The recreational areas combined are approximately 62.6 acres and include the Mission Bay Tennis Center, Athletic Fields, and Golf Course (and their respective parking areas).

2.4.2 Proposed Project Land Uses

The MBPMP assigns land use designations throughout the MBPMP area, including the project area, which are summarized in Table 2, Proposed Land Use Acreages, and described in further detail below. Figure 3, Site Plan, provides an illustration of the proposed land uses.

Table 2. Proposed Land Use Acreages

Land Use	Acres
KFMR/NWP	86.8
Expanded Marshland/Habitat ¹	140.5 <u>138.3</u>
Upland Habitat (Dune, Sage) and Buffer Area	37.4 <u>36.7</u>
Low-Cost Visitor Guest Accommodations	48.5
Regional Parkland	26.3 <u>23.4</u>
Boat Facilities/Clubhouse	2.6
Interpretive Nature Center (1 Location) ²	—
Water Leases ²³	2.1 <u>1</u>
Active Recreation	60.1 <u>66.5</u>
Open Water	95.9 <u>5</u>
Open Beach	5.5
Road ³⁴	1.6 <u>4</u>
Total	505.2

Notes: KFMR/NWP = Kendall-Frost Marsh Reserve/Northern Wildlife Preserve
other new wetlands.

²—~~Area for the Interpretive Nature Center has not been determined, and programming for the center is assumed to occur after adoption of the amendment as part of a future GDP.~~

²³ Lease areas overlaps with other land uses; therefore, acreages are not included in the total.

³⁴ Service roads, vehicular access, and parking would be in areas proposed for low-cost visitor guest accommodations, regional parkland, boating, and active recreation, subject to future design and subsequent approvals.

2.4.3 Wetlands Optimized Alternative Land Uses

As discussed in Section 2.3, Wetlands Optimized Alternative Description, this alternative would result in the establishment of 133 acres of additional functional wetlands (low-mid-high wetland/salt marsh and mudflats), resulting in a total of 250.9 acres of expanded marshland/habitat compared to the ~~227.4~~ 225.1 acres under the project (Figure 4). Table 3, Comparison of Wetlands Optimized Alternative to the Project, compares the land uses and acreages of the alternative to the project.

Table 3. Comparison of Wetlands Optimized Alternative to the Project

Land Use	Wetlands Optimized Alternative (acres)	Proposed Project (acres)
KFMR/NWP	86.8	86.8
Expanded Marshland/Habitat ¹	164.1 ¹	140.5 <u>138.3</u>
Upland Habitat (Dune, Sage) and Buffer Area	46.1	37.4 <u>36.7</u>
Low-Cost Visitor Guest Accommodations	27.4	48.5
Regional Parkland	30.8	26.3 <u>23.4</u>
Boat Facilities/Clubhouse	2.9	2.6
Interpretive Nature Center (1 Location) ²	—	—
Boat Potential Water Leases ²³	1.2	2.1 <u>1</u>
Active Recreation	49.9	60.1 <u>66.5</u>
Open Water	93	95.95 <u>95</u>
Open Beach	2.3	5.5
Road ³⁴	1.9	1.6 <u>1</u>
Total	505.2	505.2

Notes: KFMR/NWP = Kendall-Frost Marsh Reserve/Northern Wildlife Preserve

¹ Expanded wetlands includes 31.1 acres currently occupied by Campland and 133 acres of other new wetlands.

² ~~Area for the Interpretive Nature Center has not been determined, and programming for the center is assumed to occur after adoption of the amendment as part of a future GDP.~~

²³ Water ~~Boat~~ lease areas overlaps with other land uses; therefore, acreages are not included in the total.

³⁴ Service roads, vehicular access, and parking would be in areas proposed for low-cost visitor guest accommodations, regional parkland, and active recreation, subject to future design and subsequent approvals.

2.5 Topography and Soils

The project area is in San Diego County (County), which is in three geographic regions: Coastal Plain, Peninsular Ranges, and the Salton Trough (Desert Basin) (County of San Diego 2011). The project area is in the Coastal Plain and west of the Peninsular Ranges and Desert Basin. The elevation in the project area ranges from approximately sea level to 19 feet above mean sea level (amsl) (Figure 6, USGS Topographic Map). The topography of the project area is primarily gently sloping or relatively flat. The Coastal Plain region ranges in elevation from zero feet amsl to 600 feet amsl, and is characterized by topographic features including mesa tops, elevated marine terraces, and level floodplains of river valleys (County of San Diego 2011).

Five soil types are mapped in the project area (Figure 7, Soils). Within the KFMR, five soil types are mapped, including Huerhuero-Urban land complex (2 percent to 9 percent slopes), lagoon water, urban land, made land, and tidal flats, with tidal flats occupying the majority of the area. Two soil types are mapped within the Mission Bay Tennis Center, Athletic Fields, and Golf Course (MBTAG) and De Anza Cove areas, including lagoon water and made land (USDA 2023).

2.6 Hydrology

The project area lies within the Peñasquitos Hydrologic Unit. The Peñasquitos Hydrologic Unit (907.00) is a triangular area covering approximately 170 square miles (Figure 8, Peñasquitos Hydrologic Unit) (RWQCB 2002). This hydrologic unit is bordered by the San Dieguito Hydrologic Unit to the north and the San Diego Hydrologic Unit to the east and south. The project area lies is further defined to be in the Scripps (906.3) and Miramar (906.4) Hydrologic Areas.

The Peñasquitos Hydrologic Unit includes Rose Creek and several other small creeks. This hydrologic unit drains into Mission Bay or the San Diego River (RWQCB 2002). The National Hydrography Dataset identifies the Rose Creek and its tributaries as the drainage features within the project area, which discharges into the Pacific Ocean near Mission Bay (USGS 2023).

2.7 Climate

On a regional level, the County has a Mediterranean climate, which is characterized by wet winters and dry summers. This is largely because of a semi-permanent high-pressure zone that sits over the Pacific Ocean during much of the year and forms a fog belt (marine layer). The project area is generally in the Peninsular Ranges of Southern California. The generalized climate in the region is dry, subhumid mesothermal, which pushes the growing season to the wet months of the year (late winter to early spring). The rainy season in the County typically lasts from October through March. Summer months include June, July, August, and September. Native vegetation often goes dormant during the later summer months until the wet season rains start in the fall.

Average temperatures for this area range from 59 degrees Fahrenheit (°F) to 71°F. Typically, August is the warmest and driest month, February is the wettest month, and December is the coldest month of the year. Average precipitation in the rainy season ranges between 0.63 inch and 2.1 inches per month (October to March). The average annual precipitation for the project area between 2002 and 2022 was approximately 9 inches. In 2021, the total annual rainfall was 7.85 inches, approximately the same as the previous year (NRCS 2023). As of October 2022, when the most recent biological resources fieldwork was conducted, the total annual precipitation in the area was 3.22 inches, approximately 2.05 inches less than October 2021.

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Section 3 Regulatory Framework

This section summarizes federal, state, regional, and local regulations, plans, policies, and programs that provide protection and management of sensitive biological resources that are applicable to the project. The federal government administers nonmarine plant- and wildlife-related issues through the USFWS, while waters of the United States issues are administered by the U.S. Army Corps of Engineers (USACE). California law relating to wetland, water-related, and wildlife issues is administered by the CDFW. Under CEQA, the CEQA lead agency (in this case, the City of San Diego) assesses impacts associated with a proposed project or program using significance criteria determined by the CEQA lead agency pursuant to the CEQA Guidelines. Biological resources-related laws and regulations that apply include FESA, the MBTA, the CWA, CEQA, CESA, and CFGC.

The project and the Wetlands Optimized Alternative are required to be in compliance with all federal, state, and local regulations applicable to biological resources as a condition of approval.

3.1 Federal

Coastal Zone Management Act of 1972 (16 USC 1451 through 1464, Chapter 33). This act is administered by the National Oceanic and Atmospheric Administration’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. 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 CCA section under state regulations.

CWA, Section 404 (33 CFR 328.3[a]). These provisions regulate the discharge of dredged or fill material in waters of the United States, including wetlands. Activities that discharge dredge or fill material into waters of the United States can be authorized by the USACE.

FESA, Sections 7 and 9 (16 USC 1531 et seq.; 50 CFR Part 402). This prohibits the “take” (i.e., harm, harass, or kill individuals, or destroy associated habitat) of species federally listed as threatened or endangered. Take incidental to otherwise lawful activities can be authorized by the USFWS through a permit under Sections 4(d), 7, or 10(a).

Marine Mammal Protection Act (16 USC 1361 et. seq.). All marine mammals are afforded protection under the Marine Mammal Protection Act. With limited exception, the act makes it illegal to “take” a marine mammal without authorization granted by the 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 in the wild or has the potential to disturb a marine mammal 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.

MBTA (16 USC 703–712; 50 CFR 10). The federal MBTA prohibits the direct or indirect take of migratory birds and their active nests unless permitted.

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 the USACE in navigable waters of the United States for all structures such as riprap and activities such as dredging. USACE grants or denies Section 10 permits based on the effects on navigation. Most projects covered under this act are also covered under Section 404 of the CWA.

3.2 State

Birds of Prey Protection Provision (California Fish and Game Code, Section 3503.5). This provision prohibits the taking of birds of prey (order Falconiformes and Strigiformes) including their nests and eggs.

CCA and CCC. The CCC was established by voter initiative in 1972 and was made permanent by the California Legislature through the adoption of the 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 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 CCA policies. 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 project area is entirely within the Coastal Zone and, therefore, is subject to the CCA.

California Endangered Species Act (California Fish and Game Code, Section 2050 et seq.). Section 2050 of the CFGC prohibits any activities that would jeopardize or take a species designated as threatened or endangered by the state.

California Fish and Game Code, Section 1602. Section 1602 regulates water resources in the State of California. Activities that divert or obstruct the natural flow of, or change or use material from the bed, channel, or bank of any river stream or lake may be authorized by the CDFW. CDFW jurisdiction includes intermittent and perennial watercourses and extends to the top of the bank of a stream or lake if unvegetated or to the limit of the adjacent riparian vegetation, located contiguous to the watercourse, if the stream or lake is vegetated.

California Fish and Game Code, Section 3503. Section 3503 of the CFGC prohibits the take, possession, or needless destruction of the nests or eggs of any birds, except as otherwise provided by the code or any regulation made pursuant thereto.

CEQA, as amended (California Public Resources Code, Section 21000 et seq.). The goal of CEQA is to assist California public agencies in identifying potential significant negative environmental impacts caused by their actions and avoiding or mitigating those impacts when feasible.

California Fully Protected Wildlife Species Provision (California Fish and Game Code, Sections 3511, 4700, 5050, and 5515). These provisions prohibit the taking of fully protected birds, mammals, amphibians, and fish.

California Native Plant Protection Act of 1977 (California Fish and Game Code, Section 1900–1913). These provisions preserve, protect, and enhance endangered or rare native plants of the state.

RWQCB. The RWQCB regulates impacts to water quality under Section 401 of the CWA. A project must comply with Section 401 of the CWA before the USACE can issue a Section 404 Permit. The RWQCB will issue a Section 401 Water Quality Certification or Waiver of Certification, depending on the extent of impacts to waters of the United States. The RWQCB also regulates impact to waters of the state (usually limited to “isolated” waters or swales that may not fall under USACE jurisdiction) under the Porter-Cologne.

Streambed Alteration Agreement (California Fish and Game Code, Section 1600). The CFGC requires any person who proposes a project that will substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake, or their tributaries, or use materials from a streambed, to submit a notification for a Streambed Alteration Agreement to the CDFW.

Natural Community Conservation Planning Act, as amended (California Fish and Game Code, Section 2800–2835). The primary objective of the Natural Community Conservation Planning program is to conserve natural communities at the ecosystem level while accommodating compatible land use. The program seeks to anticipate and prevent the controversies and gridlock caused by species’ listing by focusing on the long-term suitability of wildlife and plant communities and including key interests in the process.

Porter-Cologne. Regulated by the RWQCB for impacts to waters of the state. Although water quality issues related to impacts to waterways are normally addressed during 401 Water Quality Certification, should a water of the State of California be determined by the USACE not to have CWA jurisdiction, Porter-Cologne would be addressed under a Construction General Permit, State General Waste Discharge Order, or Waste Discharge Requirements, depending on the level of impact and the properties of the waterway.

3.3 Local

3.3.1 San Diego Multiple Species Conservation Program

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) (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.

3.3.2 City of San Diego MSCP SAP

The MSCP SAP was adopted in 1997 and encompasses 206,124 acres within the regional MSCP Study Area (City of San Diego 1997). The SAP delineates a MHPA where preserve planning is focused and permanent conservation of habitat lands will be accomplished and includes a process for the issuance of permits under the California Natural Communities Conservation Planning Act of 1991, FESA, and CESA (as discussed previously in Section 3.2, State). The MSCP SAP is characterized by predominantly urban land uses, including associated parks and open space. The MSCP SAP separates the City into several geographic subunits. The project is in the urban area, which encompasses the central coastal and central eastern portions of San Diego, including Point Loma and other Urban Habitat Areas. More specifically, the Urban Habitat Areas 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 majority of these lands consist of canyons with native habitats in relative proximity to other MHPA areas providing habitat. These areas contribute in

some form to the MHPA, either by providing habitat for native species to continue to reproduce and find new territories or by providing necessary shelter and forage for migrating species.

The project is required to comply with the General Management Directives outlined in Section 1.5.2 of the MSCP SAP. Table 4, Proposed Project Consistency Determination with Multiple Species Conservation Program Subarea Plan General Management Directives and Area-Specific Management Directives, demonstrates the project’s compliance with the MSCP SAP General Management Directives and ASMDs.

Table 4. Proposed Project Consistency Determination with Multiple Species Conservation Program Subarea Plan General Management Directives and Area-Specific Management Directives

MSCP SAP Directives	Applicability	Implementation
General Management Directives (Section 1.5.2 of the MSCP SAP)		
<p>Mitigation: Mitigation, when required as part of future site-specific project approvals, shall be performed in accordance with the City of San Diego Environmentally Sensitive Lands Ordinance and Biology Guidelines.</p>	<p>Mitigation is required for impacts to sensitive vegetation, sensitive species, and jurisdictional aquatic resources. Direct and indirect impacts to these resources are described in detail in Sections 6.2 through 6.9.</p>	<p>Project mitigation measures to reduce potentially significant impacts are described in Sections 6.2 through 6.9. With implementation of the proposed mitigation described in these sections, the identified impacts would be reduced to a less than significant level. Therefore, the project would be in compliance with this MSCP SAP General Management Directive.</p>
<p>Restoration: Restoration or revegetation undertaken in the MHPA shall be performed in a manner acceptable to the City. Where covered species status identifies the need for reintroduction and/or increasing the population, the covered species will be included in restoration/revegetation plans, as appropriate. Restoration or revegetation proposals will be required to prepare a plan that includes elements addressing financial responsibility, site preparation, planting specifications, maintenance, monitoring and success criteria, and remediation and contingency measures. Wetland restoration/revegetation proposals are subject to permit authorization by federal and state agencies.</p>	<p>The project would restore an existing area of disturbed land in the KFMR/NWP and within the MHPA boundary to marshland habitat.</p> <p>All temporary construction areas in and adjacent to the MHPA would require revegetation following the completion of construction. Construction may result in the recruitment of non-native plant species within the temporary disturbance areas and the removal of native plant species.</p>	<p>In any areas in or adjacent to the MHPA where temporary impacts occur as a result of project activities, habitat restoration and erosion control treatments would be installed (MM BIO-5).</p> <p>All restoration and revegetation activities in and adjacent to the MHPA would be required to be conducted in accordance with the SDBG (City of San Diego 2018a) and the City’s Municipal Code, Land Development Code—Landscape Standards (City of San Diego 2012b), with specific native species incorporated, as appropriate (MM BIO-5).</p> <p>Therefore, the project would be in compliance with this MSCP SAP General Management Directive.</p>

Table 4. Proposed Project Consistency Determination with Multiple Species Conservation Program Subarea Plan General Management Directives and Area-Specific Management Directives

MSCP SAP Directives	Applicability	Implementation
<p>Public Access, Trails, and Recreation – Priority 1.2: Locate trails, view overlooks, and staging areas in the least sensitive areas of the MHPA. Locate trails along the edges of urban land uses adjacent to the MHPA, or the seam between land uses (e.g., agriculture/habitat), and follow existing dirt road as much as possible rather than entering habitat for wildlife movement areas.</p>	<p>The overall proposed project is consistent with the MSCP SAP General Management Directives for public access, trails, and recreation because no trails or paths are proposed within the MHPA. The multi-use paths proposed by the project would be limited to the existing developed De Anza Cove area and planned regional parkland areas outside the sensitive vegetation communities and MHPA. The upland and buffer areas along the edges of the project area would accommodate the multi-use paths, including educational signage and overlooks to view the wetland and waterfront.</p>	<p>No trails or paths are proposed within the MHPA. Therefore, the project would be in compliance with this MSCP SAP General Management Directive.</p>
<p>Litter/Trash and Materials Storage - Priority 1.3: Prohibit permanent storage of materials (e.g., hazardous and toxic chemicals, equipment, etc.) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, due to potential leakage.</p>	<p>No hazardous construction materials would be allowed to be permanently stored within or adjacent to the MHPA (including fuel or sediment) during project construction and any drainage from the construction site must be clear of such materials.</p> <p>Under existing conditions on the site, large RVs and other high fuel-use vehicles are permitted to park and be stored long-term on the Campland site adjacent to the MHPA boundary. Following completion of the final built project, this area would be restored to marshland habitat and no permanent storage of hazardous material would be permitted, providing a net benefit to the MHPA.</p>	<p>The construction contractor, with support from the qualified monitoring biologist, shall ensure that all areas for staging, storage of equipment and materials, trash, equipment maintenance, and other construction-related activities are conducted in previously developed or disturbed areas and outside the MHPA boundary, wherever possible (MM BIO-2). Typical BMPs, such as having trash containers on site, a demarcated limit of work, and contractor education, would limit the potential for trash and other human disturbance. During construction, the qualified monitoring biologist shall verify in writing on the Consultant Site Visit Record Forms that no trash stockpiling or oil dumping, fueling of equipment, storage of hazardous wastes or construction equipment/material, parking or other construction-related activities occurred within sensitive habitat in the MHPA. These activities shall only occur within the designated staging area outside the MHPA and in accordance with a project Water Pollution Control Plan developed in accordance with the City's Storm Water Standards. Therefore, the project would be in compliance with this MSCP SAP General Management Directive.</p>

Table 4. Proposed Project Consistency Determination with Multiple Species Conservation Program Subarea Plan General Management Directives and Area-Specific Management Directives

MSCP SAP Directives	Applicability	Implementation
<p>Adjacency Management Issues: Enforce, prevent, and remove illegal intrusions into the MHPA (e.g., orchards, decks, etc.) on an annual basis, in addition to complaint basis. Disseminate educational information to residents adjacent to and inside the MHPA to heighten environmental awareness, and inform residents of access, appropriate plantings, construction or disturbance within MHPA boundaries, pet intrusion, fire management, and other adjacency issues. Install barriers (fencing, rocks/boulders, vegetation) and/or signage where necessary to direct public access to appropriate locations.</p>	<p>Appropriate enforcement and educational signage would be placed around the project and educational materials provided for public viewing and distribution at interpretive exhibits provided at the ranger station and/or other appropriate facilities/locations.</p>	<p>In areas adjacent to the MHPA, the project design requirements include appropriate signage placed and educational materials provided along public paths of travel and at interpretive exhibits at the ranger station. Therefore, the project would be in compliance with this MSCP SAP General Management Directive.</p>
<p>Invasive Exotics Control and Removal: Do not introduce invasive non-native species into the MHPA. Provide information on invasive plants and animals harmful to the MHPA, and prevention methods to visitors and adjacent residents. Encourage residents to voluntarily remove invasive exotics from their landscaping.</p>	<p>Any plant species installed within 100 feet of the MHPA shall comply with the Landscape Regulations (LDC 142.0400 and per Table 142-04F, Revegetation and Irrigation Requirements) and be non-invasive.</p> <p>In addition, the project would include the restoration of the existing Campland site, which currently contains a high number of invasive ornamental species, to natural marshland habitat. The project also proposes to conduct enhancement activities within the MHPA, which would treat and remove invasive plant species that have established within the MHPA boundary in the KFMR/NWP.</p>	<p>The construction contractor shall permanently revegetate all graded, disturbed, or eroded native habitat areas that would not be permanently paved or covered by structures in accordance with the City's Municipal Code, SDBG and Landscape Regulations (City of San Diego 2018a, 2016), and the City's Municipal Code, Land Development Code—Landscape Standards (City of San Diego 2012b) (MM BIO-5).</p> <p>Enhancement activities would be conducted accordance with the City's Municipal Code, SDBG (City of San Diego 2018a), and the City's Municipal Code, Land Development Code—Landscape Standards (City of San Diego 2012b), within the habitat restoration areas to treat and remove any invasive species present in the reserve and MHPA (MM BIO-5).</p> <p>Therefore, the project would be in compliance with this MSCP SAP General Management Directive.</p>
<p>Flood Control</p>	<p>Not applicable.</p>	<p>Not applicable.</p>

Table 4. Proposed Project Consistency Determination with Multiple Species Conservation Program Subarea Plan General Management Directives and Area-Specific Management Directives

MSCP SAP Directives	Applicability	Implementation
Area-Specific Management Directives for MSCP Covered Species		
<p>Light-Footed Ridgway’s Rail. ASMDs for light-footed Ridgway’s rail must include active management of wetlands to ensure a healthy tidal saltmarsh environment, and specific measures to protect against detrimental edge effects to this species.</p>	<p>The overall project would be consistent with the MSCP SAP ASMDs for light-footed Ridgway’s rail since it would include both restoration and expansion of tidal marshland habitat and would include management measures to reduce detrimental edge effects, such as unauthorized public access and domestic pet predation.</p> <p>Whenever possible, project construction activities would be conducted outside the breeding season of sensitive wildlife species. If construction is required during the breeding season of sensitive wildlife, and suitable habitat is present within or adjacent to the planned construction area, appropriate measures would be taken to reduce impacts to a level below significant.</p>	<p>The project has been designed to incorporate the installation of permanent fencing, as needed based on the discretion of the Mission Bay senior park ranger to direct public access to appropriate locations, prevent unauthorized intrusion into the MHPA, and reduce domestic animal predation on wildlife.</p> <p>The project and future site-specific projects would be required to conform with the MSCP SAP and ASMDs for covered species, including light-footed Ridgway’s rail (MM BIO-2), <u>which consider future site-specific project conditions. It is acknowledged that the Ridgway’s rail is a fully protected species; therefore, specific measures would be included as conditions of project approval in future site development permits, which would preclude impacts to the species at a project level.</u> Further, the project would be required to be in compliance with regulations protecting sensitive nesting birds and raptors, including the CFGC and MBTA.</p> <p>Additional marshland habitat would be created by the project, which would help prevent detrimental edge effects to light-footed Ridgway’s rail in the long-term (MM BIO-3 through MM BIO-5).</p> <p>Therefore, the project would be in compliance with this MSCP SAP ASMDs for light-footed Ridgway’s rail.</p>
<p>California Least Tern. ASMDs for California least tern must include protection of nesting sites from human disturbance during reproductive season, predator control, and specific measures to protect against detrimental edge effects to this species.</p> <p>Incidental take (during the breeding season) associated with maintenance/removal of dikes/levees,</p>	<p>The overall project would be consistent with the MSCP SAP ASMDs for California least tern since the project would avoid all adjacent nesting sites for this species. In addition, the project would expand and restore marshland habitat, which would provide foraging habitat for California least tern and would improve water quality in Mission Bay.</p>	<p>Nesting locations for California least tern would be avoided by future site-specific project construction entirely. The project is required to conform with the MSCP SAP and ASMDs for covered species, including California least tern (MM BIO-2). Further, the project would be required to be in compliance with regulations protecting</p>

Table 4. Proposed Project Consistency Determination with Multiple Species Conservation Program Subarea Plan General Management Directives and Area-Specific Management Directives

MSCP SAP Directives	Applicability	Implementation
<p>beach maintenance/enhancement is not authorized except as specifically approved on a case-by-case basis by the wildlife agencies.</p>	<p>Whenever possible, project construction activities would be conducted outside the breeding season of sensitive wildlife species. If construction is required during the breeding season of sensitive wildlife, and suitable habitat is present within or adjacent to the planned construction area, appropriate measures would be taken to reduce impacts to a level below significant.</p>	<p>sensitive nesting birds and raptors, including the CFGC and MBTA.</p> <p>Restored and expanded marshland habitat would be created by the project, which would expand foraging habitat and help prevent any detrimental edge effects to California least tern in the long-term (MM BIO-3 through MM BIO-5).</p> <p>Therefore, the project would be in compliance with this MSCP SAP ASMDs for California least tern.</p>
<p>Belding's Savannah Sparrow. ASMDs for Belding's savannah sparrow must include specific measures to protect against detrimental edge effects to this species.</p>	<p>The overall proposed project is consistent with the MSCP SAP ASMDs for Belding's savannah sparrow since it will include both restoration and expansion of tidal marshland habitat and will include management measures to reduce detrimental edge effects, such as unauthorized public access and domestic pet predation.</p> <p>Whenever possible, project construction activities would be conducted outside the breeding season of sensitive wildlife species. If construction is required to be conducted during the breeding season of sensitive wildlife, and suitable habitat is present within or adjacent to the facility segment planned for maintenance, appropriate measures would be taken to reduce impacts to a level below significant.</p>	<p>The project has been designed to incorporate the installation of permanent fencing, as needed based on the discretion of the Mission Bay senior park ranger to direct public access to appropriate locations, prevent unauthorized intrusion into the MHPA, and reduce domestic animal predation on wildlife.</p> <p>The project is required to conform with the MSCP SAP and ASMDs for covered species, including Belding's savannah sparrow (MM BIO-2). Further, the project would be required to be in compliance with regulations protecting sensitive nesting birds and raptors, including the CFGC and MBTA.</p> <p>Additional marshland habitat would be created by the project, which would expand habitat and help prevent detrimental edge effects to Belding's savannah sparrow in the long-term (MM BIO-3 through MM BIO-5).</p> <p>Therefore, the project would be in compliance with this MSCP SAP ASMDs for Belding's savannah sparrow.</p>
<p>Cooper's Hawk. The ASMD for Cooper's hawk must include</p>	<p>The overall project would be consistent with the MSCP SAP ASMDs for Cooper's hawk through compliance with</p>	<p>The project is required to conform with the MSCP SAP and ASMDs for covered species, including Cooper's</p>

Table 4. Proposed Project Consistency Determination with Multiple Species Conservation Program Subarea Plan General Management Directives and Area-Specific Management Directives

MSCP SAP Directives	Applicability	Implementation
<p>establishment of 300-foot impact avoidance areas around active nests.</p>	<p>regulations protecting sensitive nesting birds and raptors, including the CFGC and MBTA.</p> <p>Whenever possible, project construction activities would be conducted outside the breeding season of sensitive wildlife species. If construction is required to be conducted during the breeding season of sensitive wildlife, and suitable habitat is present within or adjacent to the facility segment planned for maintenance, appropriate measures would be taken to reduce impacts to a level below significant.</p>	<p>hawk (MM BIO-2). Further, the project would be required to be in compliance with regulations protecting sensitive nesting birds and raptors, including the CFGC and MBTA.</p> <p>Therefore, the project would be in compliance with this MSCP SAP ASMDs for Cooper’s hawk.</p>
<p>Northern Harrier. The ASMDs for northern harrier must include establishment of an impact avoidance area (900-foot or maximum possible within the preserve) around active nests.</p> <p>In addition, the preserve management coordination group shall coordinate efforts to manage for wintering northern harriers’ foraging habitat within the MSCP preserves.</p>	<p>The overall project would be consistent with the MSCP SAP ASMDs for northern harrier through compliance with regulations protecting sensitive nesting birds and raptors, including the CFGC and MBTA.</p> <p>Whenever possible, project construction activities would be conducted outside the breeding season of sensitive wildlife species. If construction is required to be conducted during the breeding season of sensitive wildlife, and suitable habitat is present within or adjacent to the facility segment planned for maintenance, appropriate measures would be taken to reduce impacts to a level below significant.</p>	<p>The project is required to conform with the MSCP SAP and ASMDs for covered species, including northern harrier (MM BIO-2). Further, the project would be required to be in compliance with regulations protecting sensitive nesting birds and raptors, including the CFGC and MBTA.</p> <p>Therefore, the project would be in compliance with this MSCP SAP ASMDs for northern harrier.</p>
<p>Wandering Skipper. ASMDs for wandering skipper must include measure to control exotic weeds and invertebrate predators (where appropriate) and control access to saltmarsh habitat.</p>	<p>The overall project would be consistent with the MSCP SAP ASMDs for wandering skipper since it would include both restoration and expansion of tidal marshland habitat and would include management measures to reduce detrimental edge effects, such as invasive species introduction, unauthorized public access, and domestic pet predation.</p> <p>Any plant species installed within 100 feet of the MHPA shall comply with the Landscape Regulations (LDC 142.0400</p>	<p>The project is required to conform with the MSCP SAP and ASMDs for covered species, including wandering skipper (MM BIO-2).</p> <p>Habitat enhancement activities would be conducted accordance with the City’s Municipal Code, SDBG (City of San Diego 2018a), and the City’s Municipal Code, Land Development Code—Landscape Standards (City of San Diego 2012b), within the habitat restoration areas to treat and remove</p>

Table 4. Proposed Project Consistency Determination with Multiple Species Conservation Program Subarea Plan General Management Directives and Area-Specific Management Directives

MSCP SAP Directives	Applicability	Implementation
	<p>and per Table 142-04F, Revegetation and Irrigation Requirements) and be non-invasive.</p> <p>In addition, the project would include the restoration of the existing Campland site, which currently contains a high number of invasive ornamental species, to natural marshland habitat. The project also proposes to conduct enhancement activities within the MHPA, which would treat and remove invasive plant species that have established within the MHPA boundary in the KFMR/NWP.</p>	<p>any invasive species present in the reserve and MHPA (MM BIO-5).</p> <p>Compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations and mitigation measures (MM BIO-2 and MM BIO-5) would be implemented to avoid any unauthorized intrusion and to reduce direct and indirect impacts to MHPA habitats.</p> <p>Therefore, the project would be in compliance with this MSCP SAP ASMDs for wandering skipper.</p>

Notes: ASMD = area-specific management directive; CFGC = California Fish and Game Code; KFMR/NWP = Kendall-Frost Marsh Reserve/Northern Wildlife Preserve; LDC = Land Development Code; MBTA = Migratory Bird Treaty Act; MHPA = Multi-Habitat Planning Area; MSCP = Multiple Species Conservation Program; SAP = City of San Diego Multiple Species Conservation Program Subarea Plan; SDBG = Land Development Code—Biology Guidelines

3.3.3 Multi-Habitat Planning Area

The City’s MHPA identifies a “hard line” boundary developed by the City in cooperation with the wildlife agencies, property owners, developers, and environmental groups. Sections of the project would be in and adjacent to the MHPA (Figure 2). The MHPA identifies biological core resource areas and corridors targeted for conservation in which only limited development may occur. The MHPA is considered an urban preserve that is constrained by existing or approved development and is composed of habitat linkages connecting several large core areas of habitat. The criteria used to define core and linkage areas involve maintaining ecosystem function and processes, including large animal movement. Each core area is connected to other core areas or to habitat areas outside the MHPA either through common boundaries or through linkages. Core areas have multiple connections to help ensure that the balance in the ecosystem will be maintained. Critical habitat linkages between core areas are conserved in a functional manner with a minimum of 75 percent of the habitat within identified linkages conserved (City of San Diego 1997).

The western portion of the project area that occurs in the KFMR/NWP is in the MHPA (Figure 2). Therefore, the project would be required to document compliance with the General Planning Policies and Design Guidelines in Section 1.4.2 of the MSCP SAP, as applicable. Table 5, Multiple Species Conservation Program Subarea Plan General Planning Policies and Design Guidelines Consistency Analysis, demonstrates the project’s compliance with the MSCP SAP General Planning Policies and Design Guidelines.

Table 5. Multiple Species Conservation Program Subarea Plan General Planning Policies and Design Guidelines Consistency Analysis

General Planning Policies and Design Guidelines Section 1.4.2 of the MSCP SAP		Analysis
Roads and Utilities – Construction and Maintenance Policies		
1	All proposed utility lines (e.g., sewer, water, etc.) should be designed to avoid or minimize intrusion into the MHPA. These facilities should be routed through developed or developing areas rather than the MHPA, where possible. If no other routing is feasible, then the lines should follow previously existing roads, easements, rights-of-way and disturbed areas, minimizing habitat fragmentation.	<u>No development is currently being proposed; therefore, specific details regarding schedule, construction activities, and implementation of the project are not currently available.</u> Future development consistent with the project has been will be designed to follow existing developed and disturbed areas to the maximum extent practicable to avoid intrusion into the MHPA, where feasible. Impacts would potentially occur within and directly adjacent to MHPA areas that would result in unauthorized intrusion into MHPA habitats. However, compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations and mitigation measures (MM BIO-2 and MM BIO-5) would be implemented to avoid any unauthorized intrusion and to reduce direct and indirect impacts to MHPA habitats. Therefore, the project would be in compliance with this MSCP SAP Planning Policy.
2	All new development for utilities and facilities within or crossing the MHPA shall be planned, designed, located and constructed to minimize environmental impacts. All such activities must avoid disturbing the habitat of MSCP covered species, and wetlands. If avoidance is infeasible, mitigation will be required.	The project has been designed to follow existing developed and disturbed areas to the maximum extent feasible but could result in potential impacts to wetland resources as discussed in Sections 6.3 and 6.4. Wetlands would be avoided, to the extent feasible, in each of the project areas with the exceptions of potential impacts to open water and eelgrass beds from placement of fill material for the proposed expanded marshland habitat; potential impacts to southern coastal salt marsh, salt panne, mudflat, tidal channel, and open water from hydrologic restoration activities in KFMR/NWP. Impacts to disturbed freshwater marsh and natural flood channel would result from proposed undergrounding of the jurisdictional channel in the MBTAG area. These potential impacts would be mitigated in accordance with the SDBG (City of San Diego 2018a) (MM BIO-3 through MM BIO-5). The project would comply with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations, including standard BMPs specifically related to reducing impacts to wetlands and MSCP SAP covered species from dust, erosion, runoff, introduction of invasive species, and hydroacoustic effects generated by construction activities would be implemented. Therefore, the project would be in compliance with this MSCP SAP Planning Policy.
3	Temporary construction areas and roads, staging areas, or permanent access roads must not disturb existing habitat unless determined to be unavoidable. All such activities must occur on existing agricultural lands or in other disturbed areas rather than in habitat. If temporary habitat disturbance is unavoidable, then restoration of, and/or mitigation for, the disturbed area after project completion will be required.	The project has been designed to follow existing developed and disturbed areas to the maximum extent feasible to avoid intrusion into the MHPA. Impacts would potentially occur in and directly adjacent to MHPA areas. However, compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations and mitigation measures (MM BIO-2 and MM BIO-5) would be implemented to avoid any unauthorized intrusion and to reduce indirect impacts to MHPA habitats. Potential impacts to open water and eelgrass beds could occur from placement of fill material for the proposed expanded marshland habitat to southern coastal salt marsh, salt panne, mudflat, tidal channel, and open water from hydrologic restoration activities in KFMR/NWP. Impacts to disturbed freshwater marsh and natural flood channel would result from proposed undergrounding of the jurisdictional channel in the MBTAG area. These potential impacts would be mitigated in accordance with the SDBG (City of San Diego 2018a) (MM BIO-3

Table 5. Multiple Species Conservation Program Subarea Plan General Planning Policies and Design Guidelines Consistency Analysis

General Planning Policies and Design Guidelines Section 1.4.2 of the MSCP SAP		Analysis
		through MM BIO-5). Therefore, the project would be in compliance with this MSCP SAP Planning Policy.
4	Construction and maintenance activities in wildlife corridors must avoid significant disruption of corridor usage. Environmental documents and mitigation monitoring and reporting programs covering such development must clearly specify how this will be achieved, and construction plans must contain all the pertinent information and be readily available to crews in the field. Training of construction crews and field workers must be conducted to ensure that all conditions are met. A responsible party must be specified.	All existing wildlife corridors would remain in place after implementation of the project, and significant long-term impacts to wildlife corridors and habitat connectivity are not expected to occur in these areas. The KFMR/NWP does intersect the MHPA and contains sensitive habitat suitable for wildlife movement and foraging. While project activities may temporarily disrupt wildlife movement through the project area, the project is not expected to have a significant impact on habitat linkage over the long term because the overall habitat quality of the existing corridors would increase as a result of project implementation. Further, the project would provide overall enhancement of wildlife movement opportunities throughout much of the project area by establishing native wetland habitat in areas that were previously developed or underwater, which would provide additional foraging habitat and cover for wildlife movement. The project would comply with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations, and mitigation measures would be implemented to reduce potential indirect impacts to wildlife movement corridors (MM BIO-2 and MM BIO-3 through MM BIO-5) Therefore, the project would be in compliance with this MSCP SAP Planning Policy.
5	Roads in the MHPA will be limited to those identified in Community Plan Circulation Elements, collector streets essential for area circulation, and necessary maintenance/emergency access roads. Local streets should not cross the MHPA except where needed to access isolated development areas.	Not applicable. No roads are proposed in the MHPA.
6	Development of roads in canyon bottoms should be avoided whenever feasible.	Not applicable. No canyons occur within the project area.
7	Where possible, roads within the MHPA should be narrowed from existing design standards to minimize habitat fragmentation and disruption of wildlife movement and breeding areas. Roads must be located in lower quality habitat or disturbed areas to the extent possible.	Not applicable. No roads are proposed in the MHPA.
8	For the most part, existing roads and utility lines are considered a compatible use within the MHPA and therefore will be maintained.	Not applicable. No existing roads or utilities occur in the portion of the MHPA in the project area.

Table 5. Multiple Species Conservation Program Subarea Plan General Planning Policies and Design Guidelines Consistency Analysis

General Planning Policies and Design Guidelines Section 1.4.2 of the MSCP SAP		Analysis
Fencing, Lighting, and Signage Design Guidelines		
1	Fencing or other barriers will be used where it is determined to be the best method to achieve conservation goals and adjacent to land uses incompatible with the MHPA. For example, use chain link or cattle wire to direct wildlife to appropriate corridor crossings, natural rocks/boulders or split rail fencing to direct public access to appropriate locations, and chain link to provide added protection of certain sensitive species or habitats (e.g., vernal pools).	Prior to construction activities, the qualified monitoring 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 proposed project conditions as shown on the Biological Construction Mitigation/Monitoring Exhibit. This task shall include flagging plant specimens and delineating buffers to protect sensitive biological resources (e.g., habitats, plants, and wildlife, including nesting birds) prior to the start of construction (MM BIO-1 and MM BIO-2). Further, the project would be required to be in compliance with regulations protecting sensitive nesting birds and raptors, including the CFGC and MBTA, and appropriate avoidance buffers for nests would be implemented as required. Therefore, the project would be in compliance with this MSCP SAP Design Guideline.
2	Lighting shall be designed to avoid intrusion into the MHPA and effects on wildlife. Lighting in areas of wildlife crossings should be of low-sodium or similar lighting. Signage will be limited to access and litter control and educational purposes.	Nighttime construction is not expected for the project. However, in the event nighttime construction is required, additional measures would be necessary to ensure nighttime construction activity within undeveloped areas containing or adjacent to sensitive biological resources are minimized whenever feasible. Any nighttime lighting would be subject to City Outdoor Lighting Regulations per LDC Section 142.0740. Therefore, the project would be in compliance with this MSCP SAP Design Guideline.
Materials Storage Design Guideline		
1	Prohibit storage of materials (e.g., hazardous or toxic, chemicals, equipment) within the MHPA and ensure appropriate storage per applicable regulations in any areas that may impact the MHPA, especially due to potential leakage.	During construction activities, the qualified monitoring biologist shall verify in writing on the Consultant Site Visit Record Forms that no trash stockpiling or oil dumping, fueling of equipment, storage of hazardous wastes or construction equipment/material, parking, or other construction-related activities should occur adjacent to the MHPA or other sensitive habitat (MM BIO-2). These activities shall only occur within the designated staging area located outside the MHPA and in accordance with a project Water Pollution Control Plan developed in accordance with the City's Storm Water Standards. Therefore, the project would be in compliance with this MSCP SAP Design Guideline.
Flood Control Design Guidelines		
1	Flood control should generally be limited to existing agreements with resource agencies unless demonstrated to be needed based on a cost benefit analysis and pursuant to a restoration plan. Floodplains within the MHPA, and upstream from the MHPA if feasible, should remain in a natural condition and configuration in order to allow for the ecological, geological, hydrological, and other natural processes to remain or be restored.	Not applicable. The project does not propose artificial flood control in the MHPA. The project would restore an existing area of disturbed land in the KFMR/NWP and within the MHPA boundary to natural marshland habitat.

Table 5. Multiple Species Conservation Program Subarea Plan General Planning Policies and Design Guidelines Consistency Analysis

General Planning Policies and Design Guidelines Section 1.4.2 of the MSCP SAP		Analysis
2	No berming, channelization, or man-made constraints or barriers to creek, tributary, or river flows should be allowed in any floodplain within the MHPA unless reviewed by all appropriate agencies, and adequately mitigated. Review must include impacts to upstream and downstream habitats, flood flow volumes, velocities and configurations, water availability, and changes to the water table level.	Not applicable. The project does not propose the instillation of berms, channels, or human-made constraints or barriers within the MHPA. The project would restore an existing area of disturbed land in the KFMR/NWP and within the MHPA boundary to natural marshland habitat.
3	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, and stabilized where necessary with willows and other appropriate native plantings. Rock gabions may be used where necessary to dissipate flows and should incorporate design features to ensure wildlife movement.	Not applicable. The project does not propose the instillation of riprap, concrete, or other unnatural materials within the MHPA. The project would restore an existing area of disturbed land in the KFMR/NWP and within the MHPA boundary to natural marshland habitat.

Notes: CFGC = California Fish and Game Code; KFMR/NWP = Kendall-Frost Marsh Reserve/Northern Wildlife Preserve; LDC = Land Development Code; MBTA = Migratory Bird Treaty Act; MBTAG = Mission Bay Tennis Center, Athletic Fields, and Golf Course; MHPA = Multi-Habitat Planning Area; MSCP = Multiple Species Conservation Program; NPDES = National Pollutant Discharge Elimination System; RWQCB = Regional Water Quality Control Board; SAP = City of San Diego Multiple Species Conservation Program Subarea Plan; SDBG = Land Development Code—Biology Guidelines

3.3.4 Multi-Habitat Planning Area Land Use Adjacency Guidelines

Land uses adjacent to or within the MHPA would be managed to ensure minimal impacts to the MHPA. Consideration would be given to good planning principles in relation to adjacent land uses. The MHPA Land Use Adjacency Guidelines (LUAGs) will be incorporated into the applicable future site-specific project permits during the development review phase of the project. The LUAGs address the issues of drainage, toxics, lighting, noise, barriers, invasive species, brush management, and grading/development.

A portion of the project would occur in the MHPA; therefore, the project would be required to document compliance with the LUAGs. Table 6, Project Consistency Determination with Multi-Habitat Planning Area LUAGs, documents the project’s compliance with the MHPA LUAGs.

Table 6. Project Consistency Determination with Multi-Habitat Planning Area Land Use Adjacency Guidelines

MHPA Adjacency Guidelines Section 1.4.3 of the MSCP SAP	Applicability	Implementation
<p>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.</p>	<p>Ground disturbance for the project adjacent to the MHPA would consist of conversion of developed land (i.e., Campland) to marshland habitat and will reduce runoff potential into the preserve. Consistent with the City Storm Water Standards, pre-construction drainage, which flows toward the MHPA, shall be minimized through the expansion of marshland habitat and conversion of impermeable surfaces (e.g., paved roads, etc.) adjacent to the preserve through the restoration of the existing Campland site.</p>	<p>Only restoration and enhancement activities would occur directly adjacent to the MHPA. No new development would be located directly adjacent to the MHPA upon completion of the final built project. In addition, at the conclusion of the project, the expanded marshland habitat would provide a reduction of runoff potential into the preserve.</p> <p>Prior to construction, the MHPA boundary and the limits of ground disturbance would be clearly delineated on the construction documents and surveyed by the construction contractor, with supervision by the qualified monitoring biologist (MM BIO-2).</p> <p>The project would be required to be in compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations. Therefore, the project would be in compliance with this MSCP SAP LUAGs.</p>
<p>Toxics: Land uses, such as recreation and agriculture, that use chemicals or generate by-products such as manure, that are potentially toxic or impactful 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.</p>	<p>No hazardous construction materials storage should be allowed adjacent to the MHPA (including fuel or sediment), and any drainage from the construction site must be clear of such materials. The proposed expanded marshland habitat would further provide water quality benefit and reduce runoff potential into MHPA. Consistent with the City Storm Water Standards, existing previously legal drainage that flows toward the MHPA shall be minimized.</p>	<p>All project construction areas proposed for staging, storage of equipment and materials, trash, equipment maintenance, and other construction-related activities would be required to be located on previously developed land and away from the MHPA preserve boundary in compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations. Therefore, the project would be in compliance with this MSCP SAP LUAGs.</p>
<p>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.</p>	<p>If night work is required adjacent to the MHPA, all lighting should be shielded away from the preserve. No permanent lighting is proposed adjacent to the MHPA in the final built project, and the existing light effect on the MHPA would be reduced through the restoration of the Campland site to marshland habitat.</p>	<p>Nighttime construction is not expected for the project. However, in the event nighttime construction is required, additional measures would be necessary to ensure nighttime construction activity within undeveloped areas containing or adjacent to sensitive biological resources are minimized whenever feasible. Any nighttime lighting would</p>

Table 6. Project Consistency Determination with Multi-Habitat Planning Area Land Use Adjacency Guidelines

MHPA Adjacency Guidelines Section 1.4.3 of the MSCP SAP	Applicability	Implementation
		be subject to City Outdoor Lighting Regulations per LDC Section 142.0740. Therefore, the project would be in compliance with this MSCP SAP LUAGs.
<p>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.</p>	<p>Construction within and adjacent to suitable habitat for light-footed Ridgway’s rail, California least tern, and Belding’s savannah sparrow during the breeding seasons for these species would be avoided to the extent feasible. However, should construction need to occur during the breeding season, noise monitoring would be conducted, and if necessary, temporary sound walls, buffers, or other sound attenuating devices or techniques would be used in areas of concern to reduce noise-related impacts.</p> <p>No long-term noise generating land uses are proposed within or adjacent to the MHPA and the final built project would result in reduced noise impacts to the MHPA long-term since it would convert the existing Campland site to marshland habitat.</p>	<p>The project is required to conform with the MSCP SAP and ASMDs for covered species, including light-footed Ridgway’s rail, California least tern, and Belding’s savannah sparrow. Further, future site-specific projects would be required to be in compliance with regulations protecting sensitive nesting birds and raptors, including the CFGC and MBTA. Therefore, the project would be in compliance with this MSCP SAP LUAGs.</p>
<p>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.</p>	<p>The project areas that are within or adjacent to the MHPA would consist of conversion of developed land (i.e., Campland) to marshland habitat and would include permanent fencing as necessary to direct public access and reduce domestic animal predation on wildlife.</p>	<p>The project has been designed to incorporate the installation of permanent fencing as needed based on the discretion of the Mission Bay senior park ranger to direct public access to appropriate locations, prevent unauthorized intrusion into the MHPA, and reduce domestic animal predation on wildlife.</p>
<p>Invasives: No invasive non-native plant species shall be introduced into areas adjacent to the MHPA.</p>	<p>Plant species installed within 100 feet of the MHPA shall comply with the Landscape Regulations (LDC 142.0400 and per Table 142-04F, Revegetation and Irrigation Requirements) and be non- invasive. The project would restore the existing Campland site to native marshland habitat and thus reduce potential for invasives, particularly ornamentals, from spreading into the MHPA.</p>	<p>The construction contractor shall permanently revegetate all graded, disturbed, or eroded native habitat areas that would not be permanently paved or covered by structures in accordance with the City’s Municipal Code, SDBG and Landscape Regulations (City of San Diego 2018a, 2012b), and the City’s Municipal Code, Land Development Code—Landscape Standards (City of San Diego 2012b) (MM BIO-5).</p>

Table 6. Project Consistency Determination with Multi-Habitat Planning Area Land Use Adjacency Guidelines

MHPA Adjacency Guidelines Section 1.4.3 of the MSCP SAP	Applicability	Implementation
		Enhancement activities would be conducted in accordance with the City's Municipal Code, SDBG (City of San Diego 2018a), and the City's Municipal Code, Land Development Code—Landscape Standards (City of San Diego 2012b), within the habitat restoration areas to treat and remove any invasive species present in the reserve and within or adjacent to the MHPA (MM BIO-5).
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 development pad and outside the MHPA.	The project areas that are adjacent to the MHPA would consist of conversion of developed land (i.e., Campland) to marshland habitat and would not require brush management.	Not applicable.
Grading/Land Development: Manufactured slopes associated with site development shall be included within the development footprint for projects within or adjacent to the MHPA.	No manufactured slopes are associated with the proposed project at the programmatic level of analysis.	At project submittal, future site-specific projects would need to demonstrate consistency with Section 1.4.3 of the MSCP SAP, in particular grading/land development, as applicable.

Notes: ASMD = area-specific management directive; CFGC = California Fish and Game Code; LUAGs = Land Use Adjacency Guidelines; MBTA = Migratory Bird Treaty Act; MHPA = Multi-Habitat Planning Area; MSCP = Multiple Species Conservation Program; SAP = City of San Diego Multiple Species Conservation Program Subarea Plan

3.3.5 City of San Diego 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 the ESL regulations, 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 2018a). The SDBG also provide standards for the determination of impact and mitigation under CEQA and the CCA. Biological technical report supplemental guidelines were provided in the 2018 update of the 2012 SDBG. Sensitive biological resources, as defined by the ESL regulations, include lands in the MHPA, as discussed in Section 3.3.3, Multi-Habitat Planning Area, of this report, as well as other lands outside the MHPA that contain wetlands; vegetation communities classifiable as Tier I, II, IIIA, or IIIB; habitat for rare, threatened, or endangered species; or narrow endemic species.

The City’s definition of wetlands is broader than the definition applied by the USACE and is provided in San Diego Municipal Code, Section 113.0103. The City uses the criteria listed in

Section 320.4(b)(2) of the USACE General Regulatory Policies (33 CFR 320–330) to apply an appropriate buffer around wetlands that serves to protect the function and value of the wetland. Guidelines that supplement the development regulation requirements described in this section are provided in the SDBG (City of San Diego 2018b). The jurisdictional delineation conducted in the project area surveyed a 50-foot buffer from the proposed impact area, and there are resources within this buffer located within the Coastal Overlay Zone (COZ) that would be considered wetlands and, therefore, would require adherence to the applicable COZ wetland buffer regulations (City of San Diego 2018a). 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 2018a). Within the COZ, wetland buffers should be a minimum of 100 feet wide (as determined on a case-by-case basis in consultation with the CDFW, USFWS, and USACE) adjacent to a wetland. The width of the buffer is determined by factors such as the type and size of development, sensitivity of the wetland resource to edge effects, topography, and need for upland transition (City of San Diego 2018a). The SDBG (City of San Diego 2018a) also 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 provided in Table 3 of the SDBG (City of San Diego 2018a). Mitigation ratios for impacts to sensitive habitats are also determined based on the relationship between impacts and mitigation relative to their location inside or outside the MHPA boundary.

3.3.6 City of San Diego Land Development Code Regulations – Environmentally Sensitive Lands Regulations

The ESL regulations in Chapter 14, Article 3, Division 1 (Section 143.0101), of the City’s LDC (City of San Diego 2018a) are intended to ensure that development, including but not limited to coastal development in the COZ, occurs in a manner that protects the overall quality of specific natural resources, as defined in the City’s LDC, and is consistent with sound resource conservation principles and the rights of private property owners. These regulations and accompanying guidelines for biological resources, steep hillsides, Special Flood Hazard Areas, and coastal bluffs and beaches are intended to serve as standards for the determination of impacts and mitigation under the CEQA Statute and Guidelines and the CCA. Development on a site containing ESL requires a Site Development Permit in accordance with LDC Section 125.0502.

3.3.7 City of San Diego General Plan

The project is in the City and, therefore, is subject to the goals and policies in the City’s General Plan (City of San Diego 2018b). The City’s General Plan was adopted in March 2008 and was most recently amended in June 2018. The City’s 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 City’s General Plan contains 10 Elements that provide a comprehensive “blueprint” for the City’s growth over the next 20 plus years. As shown on the City’s General Plan Land Use Map (Figure LU-2), the project area is in an area designated as Park, Open Space, and Recreation.

The City’s General Plan Elements applicable to biological resources in the project area include the Conservation and Recreation Elements. Table 7, City of San Diego General Plan Conservation and Recreation Elements Consistency, documents the project’s consistency with the applicable Conservation and Recreation Elements’ goals and policies.

Table 7. City of San Diego General Plan Conservation and Recreation Elements Consistency

Goal/Policy	Proposed Project
Conservation Element	
<p>B. Open Space and Landform Preservation Goal: Preservation and long-term management of the natural landforms and open spaces that help make San Diego unique.</p>	<p>Consistent: The project is an MBPMP amendment that would provide for the preservation, expansion, restoration, and enhancement of natural landforms and open spaces. The project includes enhancement and restoration within City-owned portions of the existing KFMR/NWP and the expansion of wetlands currently occupied by Campland. The project would follow the MBPMP recommendation of replacing the existing Campland area with expanded marshland/habitat area, which would include a combination of mudflats, wetlands, and upland habitats.</p>
<p>Policy CE-B.1: Protect and conserve the landforms, canyon lands, and open spaces that: define the City’s urban form; provide public views/vistas; serve as core biological areas and wildlife linkages; are wetlands habitats; provide buffers within and between communities; or provide outdoor recreational opportunities.</p>	<p>Consistent: Refer to response to Goal B, Open Space and Landform Preservation Goal, regarding conservation of landforms, open space, and wetland habitats. Regarding preservation of core biological areas and wildlife linkages, all existing wildlife corridors would remain in place after implementation of the project. Further, the project would provide an overall enhancement of wildlife movement opportunities throughout much of the project area by establishing native wetland habitat in areas that were previously developed, disturbed, or underwater, which would provide additional foraging habitat and cover for wildlife movement.</p>

Table 7. City of San Diego General Plan Conservation and Recreation Elements Consistency

Goal/Policy	Proposed Project
<p>Policy CE-B.4: Limit and control runoff, sedimentation, and erosion both during and after construction activity.</p>	<p>Consistent: The project is a MBPMP amendment that includes policies to support the creation and restoration of wetlands; implementation of water quality protection measures, such as water quality detention/swale areas; and implementation of BMPs. The project would be in compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations to ensure the control of polluted runoff, sedimentation, and erosion during construction. Future activities consistent with the project would implement these measures and policies and be consistent with this goal.</p>
<p>C. Coastal Resources Goals: Coastal resource preservation and enhancement.</p> <p>Clean coastal waters by continuing to improve the quality of ocean outfall discharges.</p>	<p>Consistent: Refer to the responses to Goal B, Open Space and Landform Preservation Goal, and General Plan Policy CE-B.1 regarding the preservation and enhancement of coastal resources. The proposed project has been designed to incorporate water quality-enhancing features along the outer perimeter of developed areas to treat stormwater and runoff before flowing into nearby water bodies.</p>
<p>Policy CE-C.1: Protect, preserve, restore, and enhance important coastal wetlands and habitat (tide pools, lagoons, marine canyons) for conservation, research, and limited recreational purposes.</p>	<p>Consistent: Refer to the responses to Goal B, Open Space and Landform Preservation Goal and General Plan Policy CE-B.1 regarding the preservation, restoration, and enhancement of coastal wetlands and habitat. The project would also maintain the existing University of California San Diego Biological Research Field Station facility in the northwestern corner of the KFMR/NWP, which allows for study and interpretation of the local environment, focusing on the estuarine and bay habitats of Mission Bay.</p>
<p>Policy CE-C.2: Control sedimentation entering coastal lagoons and waters from upstream urbanization using a watershed management approach that is integrated into local community and land use plans.</p>	<p>Consistent: Refer to the response to General Plan Policy CE-B.4.</p>
<p>Policy CE-C.3: Minimize alterations of cliffs and shorelines to limit downstream erosion and to ensure that sand flow naturally replenishes beaches.</p>	<p>Consistent: Refer to the response to General Plan Policy CE-B.4.</p>
<p>Policy CE-C.4: Manage wetland areas as described in Section H, Wetlands, for natural flood control and preservation of landforms.</p>	<p>Consistent: Refer to the response to General Plan Policy CE-B.4.</p>
<p>Policy CE-C.5: Limit the use of beaches and shorelines to appropriate coastal dependent and ocean-oriented recreational/educational uses as identified in local coastal/community plans.</p>	<p>Consistent: Refer to the response to Goal B, Open Space and Landform Preservation Goal.</p>

Table 7. City of San Diego General Plan Conservation and Recreation Elements Consistency

Goal/Policy	Proposed Project
Policy CE-C.6: Implement watershed management practices designed to reduce runoff and improve the quality of runoff discharged into coastal waters.	Consistent: Refer to the response to General Plan Policy CE-B.4.
Policy CE-D.3.d: Improve and maintain urban runoff water quality through implementation of storm water protection measures.	Consistent: Refer to the response to General Plan Policy CE-B.4.
G. Biological Diversity Goal: Preservation of healthy, biologically diverse regional ecosystems and conservation of endangered, threatened, and key sensitive species and their habitats.	Consistent: Refer to the response to Goal B, Open Space and Landform Preservation Goal. The project would implement mitigation measures to reduce potential impacts to sensitive plant and wildlife species and their habitats (MM BIO-1 through MM BIO-12).
Policy CE-G.1: Preserve natural habitats pursuant to the MSCP SAP, preserve rare plants and animals to the maximum extent practicable, and manage all City-owned native habitats to ensure their long-term biological viability.	Consistent: Refer to the response to Goal G, Biological Diversity Goal.
H. Wetlands Goals: Preservation of San Diego’s rich biodiversity and heritage through the protection and restoration of wetland resources. Preservation of all existing wetland habitat in San Diego through a “no net loss” approach.	Consistent: Refer to the response to Goal B, Open Space and Landform Preservation Goal. The project would be in compliance with all federal, state, and local regulations applicable to the protection of aquatic resources, including wetlands, to ensure no net loss of existing wetlands as a result of the project.
Policy CE-H.1: Use a watershed planning approach to preserve and enhance wetlands.	Consistent: Refer to the response to Goal H, Wetlands Goal.
Policy CE-H.7: Encourage site planning that maximizes the potential biological, historic, hydrological and land use benefits of wetlands.	Consistent: Refer to the responses to Goal G, Biological Diversity Goal and Goal H, Wetlands Goal.
Recreation Element	
Policy RE-A.3: Take advantage of recreational opportunities presented by the natural environment, in particular beach/ocean access and open space.	Consistent: The project would enhance recreational amenities in the project area through the construction of multi-use pathways with designated viewing areas and overlooks. The project would also include natural recreation areas and expanded regional parkland. Additional amenities would include a sandy beach area, boat rental facility/docks, low-cost visitor guest accommodations, surface parking, and associated open space and camping facilities, such as picnic shelters and restrooms. The project would also retain existing active recreational uses north of the project area.
Policy RE-C.1: Protect existing parklands and open space from unauthorized encroachment by adjacent development through appropriate enforcement measures.	Consistent: The project would include appropriate enforcement measures to protect the existing and proposed open space areas and parklands and would be consistent with the City’s Municipal Code.

Table 7. City of San Diego General Plan Conservation and Recreation Elements Consistency

Goal/Policy	Proposed Project
<p>Policy RE-C.4: Preserve all beaches for public-only purposes, including the protection of sensitive habitat and species.</p>	<p>Consistent: The project would include natural recreation areas, regional parkland, and a public beach and would prioritize public access and connectivity between the region and De Anza, including activation of the shoreline and connectivity to adjacent uses. In addition, the project includes enhancement and restoration within City-owned portions of the existing KFMR/NWP and the expansion of wetlands currently occupied by Campland.</p>
<p>Policy RE-C.5: Design parks to preserve, enhance, and incorporate items of natural, cultural, or historic importance.</p>	<p>Consistent: The project is a plan amendment related to parkland within the MBPMP that includes policies to preserve, enhance, and incorporate items of natural, cultural, or historical importance.</p>
<p>Policy RE-C.7: Protect beaches and canyons from uncontrolled urban runoff.</p>	<p>Consistent: Refer to the response to General Plan Policy CE-B.4.</p>
<p>Goal F. Open Space Lands and Resource-Based Parks Goals: 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. Preservation of the natural terrain and drainage systems of San Diego’s open space lands and resource-based parks.</p>	<p>Consistent: The project area is considered a resource-based park in the Recreation Element of the City’s General Plan. The project is a plan amendment that includes policies to retain and enhance recreational facilities and amenities in the project area.</p>
<p>Policy RE-F.2: Provide for sensitive development of recreation uses within and adjacent to City-owned open space lands.</p>	<p>Consistent: Implementation of the project would expand open space lands by removing developed areas and restoring it with a natural habitat area adjacent to the existing KFMR/NWP habitat area. The project would also include policies and plans to sensitively retain and enhance recreation uses.</p>
<p>Policy RE-F.4: Balance passive recreation needs of trail use with environmental preservation.</p>	<p>Consistent: The project would provide a balance of preserved open space habitat areas and natural areas that serve as a passive recreation buffer, as well as a multi-use path.</p>
<p>Policy RE-F.5: Utilize open space lands for outdoor recreation purposes, when doing so is compatible with cultural, historic preservation and MSCP conservation goals and surrounding land uses.</p>	<p>Consistent: See consistency analysis response for Policy RE-C.5. Project design and associated mitigation are consistent with the requirements of the City’s MSCP SAP and the SDBG (see Sections 3.3.2 through 3.3.4).</p>

Notes: BMP = best management practices; KFMR/NWP = Kendall-Frost Marsh Reserve/Northern Wildlife Preserve; MBPMP = Mission Bay Park Master Plan; MSCP = Multiple Species Conservation Program; NPDES = National Pollutant Discharge Elimination System; RWQCB = Regional Water Quality Control Board; SAP = City of San Diego Multiple Species Conservation Program Subarea Plan

3.3.8 Mission Bay Park Master Plan

The project area is within the boundaries of Mission Bay Park—a regional park that serves the residents of and visitors to San Diego. The MBPMP was adopted on August 2, 1994, and was most recently amended on November 23, 2021, with the Fiesta Island Amendment (City of San Diego

2021). The MBPMP serves as the Local Coastal Program for this area of the City. The project is subject to the goals and recommendations established in the MBPMP, and the project would be incorporated into the MBPMP as an amendment. The MBPMP recommends that the project area should serve regional recreation needs, including low-cost visitor guest accommodations (RVs 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 project area; ensure leaseholds support the Mission Bay recreation use; improve access to recreational uses; and improve play areas for regional recreational needs.

A portion of the project area is designated as the De Anza Special Study Area (SSA). The SSA designation recommends informed analysis of the disposition of the land based on future market conditions, potential developer proposals, lease termination or renegotiation conditions, recreation needs, and potential environmental mitigation requirements. Therefore, the De Anza SSA is currently envisioned in the MBPMP as a flexible planning area, and the project would implement the direction of the MBPMP to study and propose new uses that comply with the given guidelines within the SSA. The development criteria specific to the De Anza SSA currently allows for up to 50 acres of low-cost visitor guest accommodations, water quality improvement, wetland creation, implementation of hydrologic improvements, enhancement of public use of the area, waterfront trail, and viewing areas along the shoreline.

Section 4 Methods

Before the biological resources surveys were performed, sensitive biological resources previously observed and those with potential to occur in the project area were identified through a review of existing maps, literature and reports from other biological studies conducted in the project area, and sensitive species occurrence databases.

4.1 Literature Review

The following databases and publications were reviewed before the biological resource surveys were conducted:

- Calflora Database (Calflora 2023)
- CNPS Inventory of Rare and Endangered Plants (CNPS 2023)
- CDFW Biogeographic Information and Observation System (BIOS) (CDFW 2023a)
- CDFW California Natural Diversity Database (CDFW 2023b)
- City of San Diego MSCP SAP (City of San Diego 1997)
- Mission Bay Park Natural Resource Management Plan (City of San Diego 1990)
- MBPMP (City of San Diego 2021)
- City's Municipal Code, SDBG (City of San Diego 2018a)
- San Diego County Bird Atlas (Unitt et al. 2004)
- SanGIS SanBIOS database (SanGIS 2023)
- UC San Diego Natural Reserve System Species Lists for Kendall-Frost Marsh (UC San Diego 2010)
- U.S. Department of Agriculture Soil Survey (USDA 2023)
- USFWS National Wetlands Inventory Wetlands Mapper (USFWS 2023a)
- USFWS Information for Planning and Consultation (USFWS 2023b)

Previous biological studies conducted in the project area were also reviewed and include the following:

- Spatial Distribution and Habitat Assessment of *Panoquina errans* (Lepidoptera: Hesperiiidae) in San Diego County, California (Greer 2014)
- Status and Distribution of the Light-Footed Ridgway's (Clapper) Rail in California (Zemba et al. 2015a)
- A Survey of the Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*) in California (Zemba et al. 2015b)

4.2 General Biological Surveys

Harris biologists conducted two general biological reconnaissance surveys by walking transects throughout the project area on July 1, 2022, and October 20, 2022. During the surveys, the

biologists confirmed previously mapped vegetation communities, documented observed plant and wildlife species, and evaluated the potential for occurrence of sensitive plant and wildlife species. Table 8, Surveys Conducted and Studies Reviewed for the Project, lists all surveys conducted, and species studies reviewed for the project, with dates, location of survey, and personnel who performed the survey.

Table 8. Surveys Conducted and Studies Reviewed for the Project

Date	Personnel	Focus	Location
Vegetation Mapping, Jurisdictional Delineation, and Field Reconnaissance			
2016	ESA ¹	Vegetation and land use mapping; jurisdictional delineation	Northern portion of KFMR
2/12/2016	Nordby Biological Consulting ¹	Biological resources reconnaissance	Project area
2/15/2016	AECOM, ¹ Nordby Biological Consulting ¹	Biological resources reconnaissance	KFMR
4/27/2016	AECOM ¹	Desktop analysis jurisdictional assessment	Project area
11/15/2018	Dudek	Jurisdictional delineation	Mission Bay Golf Course
7/1/2022	Harris	Vegetation mapping confirmation survey	Project area
10/20/2022	Harris	General biological resources survey	Project area
Ridgway's Rail Focused Surveys			
2/23/2015–5/30/2015; 2/22/2016–6/25/2016	Zemba ²	Ridgway's rail focused surveys	KFMR
Belding's Savannah Sparrow Focused Surveys			
4/11/2015–5/6/2015	Zemba ³	Belding's savannah sparrow focused surveys	KFMR
Wandering Skipper Focused Surveys			
2010–2012	Greer ⁴	Wandering skipper focused surveys	KFMR
Eelgrass Focused Surveys			
10/2/2018	Dudek	Eelgrass dive surveys	Mission Bay and De Anza Cove area waters
10/2/2018	Dudek	Eelgrass dive surveys	De Anza Cove area waters
10/3/2018	Dudek	Eelgrass dive surveys	Mission Bay and De Anza Cove area waters
10/09/2018	Dudek	Eelgrass dive surveys	Mission Bay and De Anza Cove area waters
10/10/2018	Dudek	Eelgrass dive surveys	Mission Bay and De Anza Cove area waters
11/6/2018	Dudek	Eelgrass sonar surveys	De Anza Cove area waters
11/6/2018	Dudek	Eelgrass kayak surveys	De Anza Cove area waters

Notes: ESA = Environmental Science Associates; KFMR = Kendall-Frost Marsh Reserve

- ¹ The focused survey report conducted by AECOM, Nordby Biological Consulting, and Environmental Science Associates (ESA) is included in AECOM (2016).
- ² The focused survey report for Ridgway's rail conducted by Zembal is included in Zembal et al. (2015a) and Zembal et al. (2016).
- ³ The focused survey report for the Belding's savannah sparrow conducted by Zembal is included in Zembal et al. (2015b).
- ⁴ The focused survey report for the wandering skipper conducted by Greer is included in Geer (2014).

The Harris 2022 biological surveys were conducted in accordance with the City's Guidelines for Conducting Biological Surveys (City of San Diego 2018a). Based on a review of the methods provided in the focused protocol survey reports, state or federal focused survey protocols were followed when appropriate and necessary.

Discussions of the 2022 surveys and previous surveys conducted in the project area are provided in the following subsections.

4.2.1 Vegetation and Land Cover Type Mapping

Vegetation communities were previously mapped during biological studies of the project area in 2016 by Environmental Science Associates (ESA), AECOM, and Nordby Biological Consulting. During the 2016 studies, biologists surveyed transects within KFMR/NWP to establish elevation gradients and subsequent upper and lower limits of the vegetation communities.

During the July 2022 survey to confirm previous vegetation community and land cover type mapping, Harris biologists used Geographic Information Systems (GIS) aerial maps connected to an iSXBlue II Global Positioning System (GPS) receiver for maximum accuracy. The limits of the previously mapped vegetation communities and land cover types were also confirmed visually by walking meandering transects through the project area (where accessible) and comparing habitat designations labeled on the GPS-enabled GIS aerial maps to the habitat types observed in the field. As adopted in the SDBG (City of San Diego 2018b), the vegetation community and land cover type mapping is in accordance with the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) as modified by the County and noted in Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008). Areas observed supporting less than 30 percent native plant species cover were mapped as disturbed land, and areas supporting at least 20 percent native plant species, but fewer than 50 percent native cover, were mapped as a disturbed native vegetation community (e.g., disturbed freshwater marsh).

The eelgrass beds in the project area were mapped by Dudek in 2018. The eelgrass surveys categorized the habitat within and around the expected impact zones and other areas of Mission Bay and included bathymetric surveys, scuba diving surveys, and kayak surveys. Confirmation of the extent of the eelgrass beds mapped in 2018 was not undertaken during the 2022 surveys.

4.2.2 Plant and Wildlife Species Observations (2022 Harris Surveys)

Wildlife identifications were made in the field directly through visual observation or indirectly through call, burrow, track, or scat detection. Latin and common names of animals follow Crother

(2012) for reptiles and amphibians, American Ornithological Society (2018) for birds, Wilson and Reeder (2005) for mammals, San Diego Natural History Museum (2002) for butterflies, and Moyle (2002) for fish.

Plant and wildlife species observed during the surveys were recorded in field notebooks and sensitive species locations were recorded in the GPS-enabled ArcGIS collector application. Complete lists of observed plant and wildlife species are provided in Appendix B, Species Observed.

Any sensitive plant and wildlife species documented during previous studies conducted in the project area but not observed during the 2022 surveys were reviewed and included in the species observed lists and discussions as deemed appropriate. The sources of these previous observations are included in Appendix B and the sensitive species discussions to differentiate them from the 2022 species observations. In addition, the results of the independently conducted focused surveys for Ridgway's rail (*Rallus longirostris levipes*), Belding's savannah sparrow, and wandering skipper that were conducted in the project area were reviewed for analysis of other sensitive species presence or potential to occur (Zembal et al. 2015a, 2015b; Greer 2014).

In addition to species detected during the surveys, the project area was assessed for the potential of sensitive plant and wildlife species to occur on site, which is presented in Section 5.4, Sensitive Species. Determinations were made through assessment of habitat preferences, knowledge of local and regional distributions, and review of pertinent literature and local recorded occurrences.

Plants unable to be identified in the field by the surveyors were collected and subsequently identified using the Jepson Manual, Vascular Plants of California, Second Edition (Baldwin et al. 2012). Plant nomenclature follows the Checklist of the San Diego County Plant Atlas (SDNHM 2022) and Baldwin et al. (2012) where appropriate. Non-native invasive plant species were identified using California Invasive Plant Council's California Invasive Plant Inventory rating criteria (Cal-IPC 2023).

4.2.3 Aquatic Resources Delineation

Due to the programmatic focus of this report, formal aquatic resources delineations were not conducted in 2022. Instead, the results of the program-level delineations conducted for the project area by AECOM and Nordby Biological Consulting in 2016 and the formal delineations conducted by ESA in 2016 and by Dudek in 2018 in the northern portion of KFMR/NWP were confirmed by visual identification of general resource boundaries during the 2022 surveys.

The delineations defined areas under CDFW jurisdiction pursuant to Sections 1600–1603 of the CFGC; under USACE jurisdiction pursuant to Section 404 of the federal CWA; under RWQCB jurisdiction of RWQCB pursuant to CWA Section 401 and Porter-Cologne; and wetlands defined under the SDBG (City of San Diego 2018b).

Section 114 of the City’s Municipal Code describes specific development regulations pertaining to sensitive biological resources, including wetlands. The City’s definition of wetlands is broader than the definition applied by the USACE and is provided in Section 113.0103 of City’s Municipal Code. The City regulates jurisdictional aquatic resources, or “wetlands,” according to the SDBG (City of San Diego 2018a). The intention of the definition is to differentiate uplands from wetlands. Under the City’s definition, wetlands can include vegetation communities such as freshwater marsh, riparian forest, riparian scrub, or vernal pools. They may also include areas that have hydric soil or wetland hydrology, but human activities have resulted in a lack of hydrophytic vegetation (e.g., channelized streambeds) or recurring natural events (City of San Diego 2018a). However, seasonal drainage patterns that are sufficient to etch the landscape (i.e., ephemeral/intermittent drainages) may not be sufficient to support wetland-dependent vegetation. These types of drainages would not satisfy the City’s wetland definition unless wetland-dependent vegetation is either present in the drainage or lacking due to past human activities. Seasonal drainage patterns may constitute “waters of the United States,” which are regulated by the USACE and/or CDFW (City of San Diego 2018a). The City regulations include requirements for wetland buffers, which typically are a minimum of 100 feet wide (as determined on a case-by-case basis in consultation with the CDFW, USFWS, CCC, and USACE) adjacent to a wetland. The width of the buffer is determined by factors such as the type and size of development, sensitivity of the wetland resource to edge effects, topography, and need for upland transition (City of San Diego 2018a).

A formal aquatic resources delineation report would be required for all project impact areas and submitted to the USACE for approval prior to project implementation once the project is finalized and exact impact boundaries are known. The aquatic resources delineation and report would be required to be in accordance with the U.S. Army Corps of Engineers 1987 Wetlands Delineation Manual and 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0) (USACE 1987, 2008).

4.3 Survey Limitations

Plants and wildlife were identified by direct observation, vocalizations, or other observance, including tracks, scat, and other signs. Therefore, lists of observed species are not necessarily comprehensive because species can be outside their blooming periods and/or in senescence, nocturnal, secretive, or within the region (project area) seasonally or during migration only and, therefore, may not have been observed.

Some areas were not directly surveyed due to a lack of habitat (i.e., developed areas), and other areas were not accessible on foot (i.e., open water requiring use of a boat). These areas were either not directly reviewed because of lack of habitat or were only able to be visually scanned rather than walked.

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Section 5 Results

The results presented below reflect data from surveys conducted in the project area.

5.1 Vegetation Communities and Land Cover Types

The project area is in the Southern Coast Ranges subregion of the California Floristic Province (Jepson Online 2023). The vegetation classifications in this report conform to the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986) as modified by the County and noted in Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008).

A total of 13 vegetation communities and land cover types were identified in the project area (Figure 9, Vegetation Communities and Land Cover Types). Tables 9a and 9b include the vegetation communities, including sensitive communities (Tier I–IV and wetlands), occurring in the project area.

Table 9a. Wetland Vegetation Communities and Land Cover Types in the Project Area (Acres)

General Vegetation Type (Holland/Oberbauer Code)	SDBG Vegetation Community	Tier/Wetland ¹	Project Component Areas				Other ² (acres)	Total ³ (acres)
			KFMR/NWP (acres)	MBTAG (acres)	De Anza Cove (acres)	Existing Campland (acres)		
Disturbed Wetland (Arundo) (11200)	Disturbed Wetland	Wetland	—	0.02	—	—	—	0.02
Disturbed Freshwater Marsh (52410)	Freshwater Marsh	Wetland	—	0.38	—	—	—	0.38
Southern Coastal Salt Marsh (52120)	Salt Marsh	Wetland	45.64	—	—	0.05	—	45.69
Open Water (64100)	Natural Flood Channel/ Marine Habitat	Wetland	0.18	0.51	5.12	—	101.31	107.12
Eelgrass Beds (64122)	Eelgrass beds	Wetland	2.83	—	0.49	5.21	75.21	83.74
Tidal Channel (64112)	Marine Habitat	Wetland	2.57	—	—	<0.01	—	2.57
Salt Panne (64300)	Salt Panne	Wetland	1.11	—	—	—	—	1.11
Mudflat (64300)	Marine Habitat	Wetland	29.55	0.91	0.63	—	3.64	34.73
Total ³			81.88	1.82	6.24	5.26	180.16	275.36

Notes: KFMR/NWP = Kendall-Frost Marsh Reserve/Northern Wildlife Preserve; MBTAG = Mission Bay Tennis Center, Athletic Fields, and Golf Course

¹ City Subarea Plan tiers and wetland identification are from the SDBG (City of San Diego 2018a).

² Other includes the segments of Mission Bay, Rose Creek, and Mission Bay Drive not included in project component areas.

³ Totals may not sum due to rounding.

Table 9b. Upland and Other Vegetation Communities and Land Cover Types in the Project Area (Acres)

General Vegetation Type (Holland/Oberbauer Code)	SDBG Vegetation Community	Tier/ Wetland ¹	Project Component Areas				Other ² (acres)	Total ³ (acres)
			KFMR/ NWP (acres)	MBTAG (acres)	De Anza Cove (acres)	Existing Campland (acres)		
Upland Communities								
Southern Foredunes ⁴ (21230)	Southern Foredunes	I	1.35	—	—	—	—	1.35
Diegan Coastal Sage Scrub ⁴ (32500)	Coastal Sage Scrub	II	2.38	—	—	—	—	2.38
Non-Native Grassland ⁴ (42200)	Non-Native Grassland	IIIB	0.04	—	—	—	—	0.04
Disturbed (11300)	Disturbed Land	IV	2.09	—	—	1.31	—	3.40
Other Land Cover Types								
Developed (12000)	Disturbed Land	IV	0.88	61.65	96.91	44.91	18.33	222.71
Total ³			6.74	61.65	96.91	46.25	18.33	229.88

Notes: KFMR/NWP = Kendall-Frost Marsh Reserve/Northern Wildlife Preserve; MBTAG = Mission Bay Tennis Center, Athletic Fields, and Golf Course

¹ City Subarea Plan tiers and wetland identification are from the SDBG (City of San Diego 2018a).

² Other includes the segments of Mission Bay, Rose Creek, and Mission Bay Drive not included in project component areas.

³ Totals may not sum due to rounding.

⁴ Sensitive vegetation community in the SDBG (City of San Diego 2018a).

5.1.1 Aquatic and Wetlands Communities

5.1.1.1 Disturbed Wetland (Arundo) (11200), Wetland

Disturbed wetlands are areas permanently or periodically inundated by water that have been substantially modified by human activity. Disturbed wetland (Arundo) is composed of monotypic or nearly monotypic stands of giant reed (Arundo) (*Arundo donax*) that are fairly widespread in Southern California. Native wetland species, such as willows (*Salix* spp.) and cattails (*Typha* spp.), also may be present at low cover. Disturbed wetland (Arundo) is considered a wetlands community according to the SDBG (City of San Diego 2018a).

Approximately 0.02 acre of disturbed wetland (Arundo) occurs in the confined flood control channel west of Grand Avenue in the MBTAG in the northeastern portion of the project area (Figure 9). The disturbed wetland (Arundo) in the project area is dominated by thick stands of giant reed.

5.1.1.2 Disturbed Freshwater Marsh (52410), Wetland

Disturbed freshwater marsh is a variety of freshwater marsh, which is a wetland habitat that develops at sites permanently flooded by freshwater lacking a significant current (Oberbauer et al. 2008). Because it is permanently flooded by fresh water, there is an accumulation of deep, peaty soils. It

typically is dominated by species such as cattails, sedge (*Carex* spp.), yellow nutsedge (*Cyperus esculentus*), and bulrushes (*Scirpus* spp.). Freshwater marsh, including the disturbed variety, is considered a wetlands community according to the SDBG (City of San Diego 2018a).

Approximately 0.38 acre of disturbed freshwater marsh occurs in the confined flood control channel west of Grand Avenue within the MBTAG in the northeastern portion of the project area (Figure 9). The disturbed freshwater marsh in the project area is dominated by stands of cattails, willows, and bulrushes.

5.1.1.3 Southern Coastal Salt Marsh (52120), Wetland

Southern coastal salt marsh is a wetland habitat that develops where the water table is at or just above the ground surface, such as around the margins of bays, lagoons, and estuaries along the coast (Oberbauer et al. 2008). Southern coastal salt marsh occurs at locations with warmer water and air temperatures and has a longer growing season than northern coastal salt marsh. Southern coastal salt marsh is considered a wetlands community according to the SDBG (City of San Diego 2018a).

Approximately 45.69 acres of southern coastal salt marsh occurs within the central portion of the KFMR/NWP and along the western side of Campland in the western project area (Figure 9). California cordgrass (*Spartina foliosa*) dominates the low marsh area of KFMR/NWP, which is defined as occurring from approximately +3 to +5 feet mean lower low water (Everest 2018). Other prevalent species in the low marsh area include salt marsh daisy (*Jaumea carnosa*) and saltwort (*Batis maritima*). The mid-elevation marsh area is defined as occurring from approximately +4 to + 5.7 feet mean lower low water and is dominated by pickleweed (*Salicornia pacifica; S. bigelovii*) and saltwort, also containing cordgrass and sea lavender (*Limonium californicum*) at lower densities (Everest 2018). The high elevation marsh area is irregularly to intermittently inundated and is defined by Everest as occurring from approximately +5.5 to +7.5 feet mean lower low water. The dominant species include California seablite (*Suaeda taxifolia*), Parish's glasswort (*Arthrocnemum subterminale*), alkali heath (*Frankenia salina*), saltgrass (*Distichlis spicata*), shoregrass (*Distichlis littoralis*), and sea lavender. Two invasive species, river mangrove (*Aegiceras corniculatum*) and manawa (*Avicennia marina resinifera*), are also found in the high elevation marsh area. Annual eradication efforts for these two species throughout the California Natural Reserve System have successfully limited their distribution and reduced the population numbers throughout the southern coastal salt marsh areas (Everest 2018).

5.1.1.4 Open Water (64100), Wetland

According to Oberbauer et al. (2008), the open water designation is primarily used to describe areas of open ocean water.

Approximately 107.12 acres of open water occurs in Rose Creek, De Anza Cove, and Mission Bay throughout the project area (Figure 9). This subtidal habitat extends from the upper limit of the unvegetated shore to the ocean. These habitats are considered aquatic systems and are adjacent to and

down slope from intertidal estuarine wetlands. Open water is considered a wetlands community according to the SDBG (City of San Diego 2018a).

5.1.1.5 Eelgrass Beds (64122), Wetland

Eelgrass beds are not categorized by Oberbauer et al. (2008); however, eelgrass beds are a habitat type categorized by the SDBG (City of San Diego 2018a). Eelgrass beds are characterized as open water that includes areas exposed by low tide and is dominated by eelgrass (*Zostera marina*). Eelgrass beds contribute to ecosystem functions at multiple levels as a primary and secondary producer, as a habitat structuring element, as a substrate for epiphytes and epifauna, and as a sediment stabilizer and nutrient cycling facilitator. Eelgrass provides important foraging areas and shelter to young fish and invertebrates, food for migratory waterfowl and sea turtles, and spawning surfaces for invertebrates and fish such as the Pacific herring (*Clupea pallasii*) (NOAA 2014). Eelgrass beds are considered a wetlands community according to the SDBG (City of San Diego 2018a).

Approximately 83.74 acres of eelgrass beds in the project area is dominated by eelgrass and occurs in Mission Bay downstream of the Rose Creek outlet, south of the KFMR/NWP, and in De Anza Cove (Figure 9).

5.1.1.6 Tidal Channel (64112), Wetland

Tidal channel is characterized as open water that includes the area exposed by low tide up to and including the spray zone (Oberbauer et al. 2008). Tidal channel occurs along the Pacific Ocean Coast within zones that experience hydrologic flow and are periodically submerged by water depending on the tides. Tidal channel is a wetlands community according to the SDBG (City of San Diego 2018a).

Approximately 2.57 acres of tidal channel occurs in several zones in the KFMR/NWP and along the western side of Campland in the western portion of the project area (Figure 9).

5.1.1.7 Salt Panne/Mudflat (64300), Wetland

Salt panne/mudflat communities are characterized as coastal wetlands that form when mud is deposited by the tides or rivers (Oberbauer et al. 2008). Salt panne/mudflat occurs in sheltered areas, such as bays and estuaries. Salt panne are expanses of ground covered in salt or other minerals left behind from evaporated water. Mudflats are formed when salt pannes pool with water when it rains or tidal water pools in ground depressions. Salt panne/mudflat communities typically do not support significant stands of vegetation. Salt panne/mudflat is a wetlands community according to the SDBG (City of San Diego 2018a).

Approximately 1.11 acres of salt panne and 34.73 acres of mudflat occur in the northern and eastern portions of the KFMR/NWP and along Rose Creek in the western project area (Figure 9). The majority of the salt panne/mudflat communities in the project area are unvegetated. However,

Parish's glasswort and pickleweed were observed growing in the higher elevation areas of the KFMR/NWP.

5.1.2 Upland Communities

5.1.2.1 Southern Foredues (21230), Tier I

Southern foredues are dominated by succulents, perennial herbs, and subshrubs, with a higher proportion of woody plants up to 30 centimeters tall (Oberbauer et al. 2008). Southern foredues are found in areas of sand accumulation along the coast between Point Conception and the U.S./Mexico International border. This habitat is characterized by a drier, warmer, and less strong and persistent onshore wind (Oberbauer et al. 2008). Typical southern foredune species include red sand verbena (*Abronia maritima*), beach sand verbena (*Abronia umbellata*), beach bur (*Ambrosia chamissonis*), beach saltbush (*Atriplex leucophylla*), sea rocket (*Cakile maritima*), beach morning glory (*Calystegia soldanella*), beach evening primrose (*Camissonia cheiranthifolia*), saltgrass, and (sometimes) non-native iceplant (*Carpobrotus edulis*). Southern foredues is considered a Tier I sensitive vegetation community according to the SDBG (City of San Diego 2018a).

Approximately 1.35 acres of southern foredues occurs in the southern portion of the KFMR/NWP in the western project area (Figure 9). In the project area, southern foredues appear to be established on sand spoils excavated during construction of Stribley Marsh (Everest 2018). Although the area does not represent a typical foredune due to its location in the backwaters of Mission Bay, the habitat observed best fits the description of southern foredune as described by Holland (1986). Species occurring in this southern foredune habitat in the project area include beach evening primrose, beach bur, goldenbush (*Isocoma menziesii*), and sea rocket.

5.1.2.2 Diegan Coastal Sage Scrub (32500), Tier II

Diegan coastal sage scrub is composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species, such as California sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.), with scattered evergreen shrubs, including lemonade berry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*) (Oberbauer et al. 2008). Diegan coastal sage scrub is considered a Tier II sensitive vegetation community according to the SDBG (City of San Diego 2018a).

Approximately 2.38 acres of Diegan coastal sage scrub occurs along Crown Point Drive in the KFMR/NWP in the western portion of the project area (Figure 9). Dominant species in the Diegan coastal sage scrub in the project area include California sagebrush, California buckwheat, California encelia (*Encelia californica*), bladder pod (*Peritoma arborea*), and various prickly pear cactus (*Opuntia* sp.) species.

5.1.2.3 Non-Native Grassland (42200), Tier IIIB

Non-native grassland consists of dense to sparse cover of annual grasses with flowering culms between 0.5 to 3 feet in height (Oberbauer et al. 2008). In the County, the presence of wild oat, bromes, stork's bill (*Erodium* spp.), and mustard (*Brassica* spp.) is a common indicator. In some areas, depending on past disturbance and annual rainfall, annual forbs may be the dominant species; however, it is presumed that grasses will dominate. Non-native grassland is considered a Tier IIIB sensitive vegetation community according to the SDBG (City of San Diego 2018a).

Approximately 0.04 acre of non-native grassland occurs in the northern portion of the KFMR/NWP in the western project area (Figure 9). The non-native grassland in the project area is dominated by bromes, wild oat, and mustard intermixed with open, bare ground and herbaceous weedy species.

5.1.2.4 Disturbed Land (11300), Tier IV

Disturbed land is a land cover type characterized by a predominance of non-native species, often introduced and established through human action. Oberbauer et al. (2008) describes disturbed land as areas that have been physically disturbed by human activity and are no longer recognizable as a native or naturalized vegetation association but continue to retain a soil substrate. Typically, vegetation, if present, is nearly exclusively composed of non-native plant species such as ornamentals or ruderal exotic species (i.e., weeds). Disturbed land is considered a Tier IV land cover according to the SDBG (City of San Diego 2018a).

Approximately 3.40 acres of disturbed land occurs along Crown Point Drive, in the northern portion of KFMR/NWP and around the perimeter of Campland in the western portion of the project area (Figure 9). Disturbed habitat in the project area consists mostly of filled soils in previously graded or mechanically altered lots that have recruited non-native plant species including Russian thistle (*Salsola australis*) and fivehorn smotherweed (*Bassia hyssopifolia*).

5.1.3 Other Land Cover Types

5.1.3.1 Developed (12000), Tier IV

Developed land refers to areas that have been constructed upon or disturbed so severely that native vegetation is no longer supported. Developed land includes areas with permanent or semi-permanent structures, pavement or hardscape, landscaped areas, and areas with a large amount of debris or other materials (Oberbauer et al. 2008). Examples of these areas may include graded landscapes or areas, graded firebreaks, graded construction pads, construction staging areas, or areas that are repeatedly used in ways that prevent revegetation (e.g., parking lots, trails that have persisted for years). Although not listed in the SDBG, developed land is assumed to be a Tier IV land cover (City of San Diego 2018b).

Approximately 222.71 acres of developed land is the dominant land cover type in the project area, occurring along Crown Point Drive in the KFMR/NWP, and makes up the majority of the De Anza Cove and Campland areas (Figure 9). The developed land in the project area includes paved parking lots, roadways, and sidewalks, as well as buildings and associated landscaped areas.

5.2 Jurisdictional Aquatic Resources

The results of the 2016 and 2018 aquatic resources delineations determined that a total of 275.36 acres of wetlands and non-wetland waters occur in the project area that are potentially under the jurisdiction of the USACE and RWQCB, and CCC and/or wetlands regulated by the City. Streambeds and associated riparian areas are potentially under the jurisdiction of the CDFW as well and will be determined in consultation with the CDFW prior to project implementation. Potentially jurisdictional aquatic resources mapped in the project area are shown on Figure 10, Aquatic Resources. Table 10, Jurisdictional Aquatic Resources in the Project Area (Acres), provides a summary of these aquatic resources potentially under the jurisdiction of the USACE, RWQCB, CCC, CDFW, and/or City.

Table 10. Jurisdictional Aquatic Resources in the Project Area (Acres)

General Vegetation Type	SDBG Vegetation Community	Jurisdiction	Acreage
Wetland and Riparian Areas			
Disturbed Wetland (Arundo)	Disturbed Wetland	USACE/RWQCB/CCC/CDFW/City	0.02
Disturbed Freshwater Marsh	Freshwater Marsh	USACE/RWQCB/CCC/CDFW/City	0.38
Eelgrass	Eelgrass beds	USACE/RWQCB/CCC/CDFW/City	83.74
Salt Panne	Salt Panne	USACE/RWQCB/CCC/CDFW/City	1.11
Mudflat	Marine Habitat	USACE/RWQCB/CCC/CDFW/City	34.73
Southern Coastal Salt Marsh	Salt Marsh	USACE/RWQCB/CCC/CDFW/City	45.69
Wetland and Riparian Areas Total ¹			165.67
Non-Wetland Waters			
Open Water	Natural Flood Channel/Marine Habitat	USACE/RWQCB/CCC/CDFW/City	107.12
Tidal Channel	Marine Habitat	USACE/RWQCB/CCC/CDFW/City	2.57
Non-Wetland Waters Total ¹			109.69
Total ¹			275.36

Note: CCC = California Coastal Commission; CDFW = California Department of Fish and Wildlife; RWQCB = Regional Water Quality Control Board; USACE = U.S. Army Corps of Engineers

¹ Acreage may not sum due to rounding.

Potential USACE, RWQCB, CCC, CDFW, and City-jurisdictional areas in the project area total 275.36 acres, including 165.67 acres of wetlands and riparian areas and 109.69 acres of non-wetland waters. The entire project area extends into the COZ, including USACE, RWQCB, CCC, CDFW, and City-regulated wetlands and non-wetlands.

5.3 Observed Species

5.3.1 Plant Species

Appendix B lists the vascular plant species observed in the project area during the 2016, 2018, and 2022 biological resources surveys. A total of 98 plant taxa were observed in the project area—58 (59 percent) were native and 40 (41 percent) were non-native. Of the 98 plants observed in the project area, four are designated as sensitive. Sensitive plant species observed in the project area are described in Section 5.4.

The native wetland and upland vegetation communities that provide suitable habitat for native and sensitive plant species are primarily limited to the western project area.

5.3.2 Wildlife Species

Appendix B lists all wildlife species detected in the project area during the 2016, 2018, and 2022 biological resources surveys. A total of 182 wildlife species were observed, including 145 birds, 10 fish, 18 invertebrates, five mammals, and four reptiles. Of the 182 wildlife species observed in the project area, 27 are designated as sensitive (nine of which are MSCP SAP covered species). Sensitive wildlife species observed in the project area are described in Section 5.4.

The native habitats, such as coastal scrub, marsh, and wetland, as well as non-native habitats, including non-native grassland and ornamental trees on the developed land in the project area, provide foraging and nesting habitat for migratory and resident bird species and roosting habitat for bat species. Marine habitats, including open water and eelgrass beds, in the project area provide suitable habitat for marine mammal and marine and anadromous fish species. The coastal scrub along the edges of the western project area provides cover and foraging opportunities for terrestrial reptiles and small mammals. The high-quality native habitats that could support both common and sensitive wildlife species occur in the project area. However, these habitats are limited mainly to the KFMR/NWP in the western portion of the project area and are bordered by urban development.

5.4 Sensitive Species

Sensitive species are those recognized by federal, state, or local agencies as being potentially vulnerable to impacts because of rarity, local or regional reductions in population numbers, isolation/restricted genetic flow, or other factors. Special-status plants include those listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS and CDFW; those considered sensitive by the CDFW; those species included in the California Rare Plant Rank (CRPR) inventory maintained by the CNPS; and are listed as a MSCP SAP covered species; and/or have been defined by the City as narrow endemic. Sensitive wildlife species include those listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS and CDFW; those considered sensitive by the CDFW; California Watch List (WL); or MSCP SAP covered

species. The MSCP SAP provides Area-Specific Management Directives (ASMDs) for certain covered species to ensure their protection (City of San Diego 1997).

No focused sensitive plant or protocol sensitive wildlife surveys were conducted within the project area during the 2022 surveys. However, three sensitive plant species were observed in the KFMR/NWP in the western portion of the project area during the 2016 and 2018 surveys: Palmer's frankenia (*Frankenia palmeri*), San Diego marsh-elder (*Iva hayesiana*), and California seablite (*Suaeda californica*) (Figure 11, Sensitive Species Observed). The presence of San Diego marsh-elder was confirmed and an additional sensitive plant, southwestern spiny rush (*Juncus acutus* ssp. *leopoldii*) was observed in the western side of the KFMR/NWP during the 2022 surveys. Habitat assessments and focused surveys were previously conducted in the project area for the following sensitive wildlife species: Ridgway's rail, Belding's savannah sparrow, and wandering skipper (Zemba et al. 2015a, 2015b; Greer 2014). During the focused surveys, Ridgway's rail and Belding's savannah sparrow were observed in the project area. Other sensitive wildlife species incidentally observed during previous studies in 2016 and 2018 are also included in the list of species observed to provide a full accounting of sensitive species documented in the project area. No focused surveys were conducted in 2022. However, sensitive plant and wildlife species documented during the 2016 and 2018 focused surveys are considered present in the project area for the purposes of this report and are discussed in this section accordingly.

As described in Section 4.1, Literature Review, distributions of historical sensitive species observations within one mile of the project were reviewed in preparation of this report. For the purposes of this biological resources assessment, those species that have been observed during previous surveys, those included on the UC San Diego KFMR/NWP species list, and which are known to occur or have some potential to occur within the one mile of the project area are addressed in this section. The list of potentially occurring sensitive plant and wildlife species is provided in Table 11, Sensitive Plant and Wildlife Species with Potential to Occur in the Project Area, and shown on Figure 12, Sensitive Species with Potential to Occur, along with an assessment of their potential for occurrence in the project area.

Table 11. Sensitive Plant and Wildlife Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Status		Habitat	Potential to Occur
		Federal/State/CRPR/MSCP	SAP		
Plants					
<i>Acmispon prostratus</i>	Nuttall's acmispon	None/None/1B.1/Covered		Blooms Mar-Jun. Occurs in coastal dunes and sandy coastal scrub up to 35 feet amsl.	<i>High.</i> Sandy coastal scrub present along western edge of KFMR. Recently located (2012) at the edge of the project area along western edge of KFMR (Figure 12) (CDFW 2023b).
<i>Aphanisma blitoides</i>	Aphanisma	None/None/1B.2/Covered		Blooms Feb-Jun. Occurs in coastal bluff scrub, coastal dunes and coastal scrub (sometimes in gravelly or sandy soils) from 4 to 1000 feet amsl.	<i>Low.</i> Suitable sandy/gravelly soils in coastal scrub habitat along western edge of KFMR (only). Historical location from 1935 less than 1 mile northwest of KFMR but not in the project area. Historical location likely extirpated due to development (Figure 12) (CDFW 2023b).
<i>Artemisia palmeri</i>	San Diego sagewort	None/None/4.2/None		Blooms (Feb) May- Sep. Occurs in sandy and mesic chaparral, coastal scrub, riparian forest, riparian scrub and riparian woodlands up to 3000 feet amsl. Typically found near watercourses and in floodplains.	<i>Low.</i> Suitable sandy/mesic soils in coastal scrub habitat along the western edge of KFMR, and along Rose Creek inlet. Known locations within the region near Tecolote Canyon, but not within 1-mile or in the project area (CNPS 2023).
<i>Bloomeria clevelandii</i>	San Diego goldenstar	None/None/1B.1/None		Blooms Apr-May. Occurs in chaparral, coastal scrub, valley and foothill grassland and vernal pool habitats in clay soils from 165 feet to 1525 feet amsl.	<i>Not Expected.</i> Project area out of elevation range for this species. Historical locations within 1 mile from 1940, but not in the project area and those locations likely no longer exist (Figure 12) (CDFW 2023b).
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	None/None/1B.1/Covered		Blooms May-Jul. Occurs in closed-cone coniferous forest, chaparral, cismontane woodland, meadows, seeps, valley and foothill grasslands, and vernal pools in clay and mesic soils from 100 to 5550 feet amsl.	<i>Not Expected.</i> Project area out of elevation range for this species. Historical locations within 1 mile but not in the project area (Figure 12) (CDFW 2023b).
<i>Calandrinia breweri</i>	Brewer's calandrinia	None/None/4.2/None		Blooms (Jan) Mar-Jun. Occurs in chaparral and coastal scrub, preferring burned and disturbed areas. Sometimes in sandy or loam soils. Found up to 4005 feet amsl.	<i>Not Expected.</i> Some sandy coastal scrub habitat along western edge of KFMR, however, project area has not recently burned. Historical locations within region outside 1 mile. No historical locations are recorded in the project area (CNPS 2023).

Table 11. Sensitive Plant and Wildlife Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Status Federal/State/CRPR/MSCP SAP	Habitat	Potential to Occur
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	None/None/1B.1/—	Blooms Jan-Aug. Occurs in (sandy) coastal bluff scrub and coastal dunes up to 330 feet amsl.	<i>Not Expected.</i> No suitable habitat present. Two unspecified, historical locations noted within 1 mile but are likely extirpated (Figure 12) (CDFW 2023b).
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	Salt marsh bird's-beak	FE/SE/1B.2/Covered	Blooms May-Oct (Nov). Occurs in coastal dunes, and coastal salt marshes and swamps up to 100 feet amsl.	<i>Moderate.</i> Suitable coastal salt marsh habitat is present within KFMR. Historical locations within region greater than 1 mile, but not in the project area (CNPS 2023).
<i>Corethrogyne filaginifolia</i> var. <i>incana</i>	San Diego sand aster	None/None/1B.1/—	Blooms Jun-Sep. Occurs in coastal bluff, chaparral, and coastal scrub habitat from 10 to 375 feet amsl.	<i>Low.</i> Suitable coastal scrub habitat along western edge of KFMR. Historical location from 1897 less than 1 mile northwest of KFMR but not in the project area (Figure 12). Historical location likely extirpated due to development (CDFW 2023b).
<i>Corethrogyne filaginifolia</i> var. <i>linifolia</i>	Del Mar Mesa sand aster	None/None/1B.1/Covered	Blooms May-Sep. Occurs in sandy coastal bluff scrub, sandy openings in maritime chaparral, and sandy coastal scrub habitats up to 490 feet amsl.	<i>Not Expected.</i> Suitable habitat is present along western edge of KFMR. Known locations of this species are further north (greater than 3 miles); none within project area (CDFW 2023b).
<i>Ferocactus viridescens</i>	San Diego barrel cactus	None/None/2B.1/Covered	Blooms May- Jun. Occurs in rocky and sandy chaparral, coastal scrub, valley and foothill grassland habitats from 10 to 1475 feet amsl.	<i>Moderate.</i> Suitable sandy and rocky coastal scrub habitat is present within KFMR. Historical locations within region greater than 1 mile, but not in the project area (CNPS 2023).
<i>Frankenia palmeri</i>	Palmer's frankenia	None/None/2B.1/None	Blooms May-Jul. Occurs in alkali flats, coastal dunes, coastal salt marshes and swamps and playas up to 35 feet amsl.	<i>Present.</i> Identified during 2016 Dudek surveys within KFMR. On plant list for KFMR (UC San Diego 2023). Suitable habitat is present in the project area in KFMR.
<i>Heterotheca sessiliflora</i> ssp. <i>sessiliflora</i>	Beach goldenaster	None/None/1B.1/Covered	Blooms Mar-Dec. Occurs in coastal chaparral, coastal dunes, and coastal scrub up to 4020 feet amsl.	<i>Low.</i> Suitable coastal scrub habitat along western edge of KFMR. Historical location from 1935 less than 1 mile southwest of KFMR but not in the project area (Figure 12). Historical location likely extirpated due to development (CDFW 2023b).

Table 11. Sensitive Plant and Wildlife Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Status		Habitat	Potential to Occur
		Federal/State/CRPR/MSCP	SAP		
<i>Isocoma menziesii</i> var. <i>decumbens</i>	Decumbent goldenbush	None/None/1B.2/None		Blooms Apr-Nov. Occurs in chaparral and (often sandy or disturbed) coastal scrub habitats from 35 to 445 feet amsl.	<i>Low.</i> Suitable coastal scrub habitat along western edge of KFMR. Historical location from 1934 less than 1 mile outside KFMR but not in the project area (Figure 12). Historical location likely extirpated due to development (CDFW 2023b).
<i>Iva hayesiana</i>	San Diego marsh-elder	None/None/2B.2/None		Blooms Apr-Oct. Occurs in marshes, swamps, and playas up to 1640 feet amsl.	<i>Present.</i> Individuals identified during surveys in 2016 and 2022 near the northwestern entrance to KFMR in the northwestern portion of the project area (Figure 11).
<i>Juncus acutus</i> ssp. <i>leopoldii</i>	Southwestern spiny rush	None/None/4.2/None		Blooms (Mar) May-Jun. Occurs in mesic coastal dunes, alkaline seeps, meadows, and coastal salt marshes and swamps from 10 to 2955 feet amsl.	<i>Present.</i> Individuals identified during surveys in 2016 and 2022 near the northwestern entrance to KFMR, and slightly south, in the northwestern portion of the project area (Figure 11).
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	None/None/1B.1/None		Blooms Feb-Jun. Occurs in coastal salt marshes and swamps, and saline playas and vernal pools from 5 to 4005 feet amsl.	<i>Moderate.</i> Suitable coastal salt marsh and saline vernal pools available in KFMR. Historical location from 1939 less than 1 mile south of KFMR but not in the project area (Figure 12) (CDFW 2023b).
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's peppergrass	None/None/4.3/None		Blooms Jan-Jul. Occurs in chaparral and coastal scrub bluff habitats from 5 to 2905 feet amsl.	<i>Low.</i> Suitable coastal scrub habitat along western edge of KFMR. Historical locations known from less than 1 mile south but not in the project area (Figure 12) (CDFW 2023b).
<i>Leptosyne maritima</i>	Sea dahlia	None/None/2B.2/None		Blooms Mar-May. Occurs in coastal bluff scrub and coastal scrub habitats 15 to 490 feet amsl.	<i>Low.</i> Some coastal scrub habitat available but no coastal bluff in the project area. Historical locations from 1935 known south of project area (Figure 12). No known locations within project area (CDFW 2023b).
<i>Lycium californicum</i>	California box-thorn	None/None/4.2/None		Blooms Mar-Aug (Dec). Occurs in coastal bluff scrub or coastal scrub habitats 15 to 490 feet amsl.	<i>Moderate.</i> Suitable habitat and associated soils and species are present along western edge of KFMR. Historical locations within region greater than 1 mile, but not in the project area (CDFW 2023b).

Table 11. Sensitive Plant and Wildlife Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Status Federal/State/CRPR/MSCP SAP	Habitat	Potential to Occur
<i>Mobergia calcuiformis</i>	Light gray lichen	None/None/3/None	Crustose lichen occurring in coastal scrub habitats on rocks at 35 feet amsl.	<i>Not Expected.</i> Two unspecified, historical locations noted within the region but not within 1 mile. Historical locations are likely extirpated (CNPS 2023).
<i>Nemacaulis denudata</i> var. <i>denudata</i>	Coast woolly-heads	None/None/1B.2/-	Blooms Apr-Sep. Occurs in coastal dune habitats up to 330 feet amsl.	<i>Not Expected.</i> No expanses of naturally occurring coastal dune (suitable) habitat within project area. Historical locations within 1 mile but not in the project area (Figure 12) (CDFW 2023b).
<i>Phacelia stellaris</i>	Brand's star phacelia	None/None/1B.1/None	Blooms Mar-Jun. Occurs in coastal dune and scrub habitats from 5 to 1310 feet amsl.	<i>Low.</i> Some coastal scrub habitat available along western edge of KFMR. Historical locations from 1935 known south of project area (Figure 12). No known locations within project area (CDFW 2023b).
<i>Pogogyne abramsii</i>	San Diego mesa mint	FE/SE/1B.1/Covered	Blooms Mar-Jul. Occurs in vernal pools from 295 to 655 feet amsl.	<i>Not Expected.</i> Project area out of elevation range for this species. Vernal pools available, but brackish. Historical locations within 1 mile, but not in the project area (Figure 12) (CDFW 2023b).
<i>Senecio aphanactis</i>	Chaparral ragwort	None/None/2B.2/None	Blooms Jan-Apr (May). Occurs in chaparral, cismontane woodland and coastal scrub from 50 to 2625 feet amsl.	<i>Not Expected.</i> Project area out of elevation range for this species. Historical locations within 1 mile but not in the project area (Figure 12) (CDFW 2023b).
<i>Stylocline citroleum</i>	Oil neststraw	None/None/1B.1/None	Blooms Mar-Apr. Occurs in clay soils in chenopod and coastal scrub, and valley and foothill grasslands from 165 to 1310 feet amsl.	<i>Not Expected.</i> Project area out of elevation range for this species. Historical locations within 1 mile but not in the project area (Figure 12) (CDFW 2023b).
<i>Suaeda esteroa</i>	Estuary seablite	None/None/1B.2/None	Blooms (Jan-May) Jul-Oct. Occurs in coastal salt marshes and swamps up to 15 feet amsl.	<i>High.</i> Suitable habitat is present in the project area in KFMR. Historical locations within region but not in the project area (CDFW 2023b).
<i>Suaeda californica</i>	California seablite	FE/None/1B.1/None	Blooms Jul-Oct. Occurs in coastal salt marshes and swamps up to 50 feet amsl.	<i>Present.</i> Identified during 2016 Dudek surveys. On plant list for KFMR (UC San Diego 2023). Suitable habitat is present in the project area in KFMR.

Table 11. Sensitive Plant and Wildlife Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Status		
		Federal/State/CRPR/MSCP	SAP	Habitat
Wildlife				
Invertebrates				
<i>Danaus plexippus</i>	Monarch butterfly ¹ (California overwintering population)	FC/None/None/None	Occurs in a variety of habitats where patches of milkweed (<i>Asclepias</i> sp.), the monarch caterpillar host plant, are present. Overwinters in eucalyptus, pine, and cypress trees.	<i>Present.</i> Adult monarch butterflies were observed flying through the project area during the 2022 surveys (Figure 11). No milkweed patches occur in the project area that would be suitable host plants for monarch butterfly caterpillars to occupy.
<i>Branchinecta sandiegonensis</i>	San Diego fairy shrimp	FE/None/-/Covered	Generally restricted to shallow freshwater vernal pools includes swales, tire ruts, and other depressions that are filled seasonally by rainfall.	<i>Not Expected.</i> Vernal pools available within KFMR but are saline. Historical locations within 1 mile, but not in the project area (Figure 12) (CDFW 2023b).
<i>Panoquina errans</i>	Salt marsh wandering skipper	None/None/-/Covered	Found on coastlines in Southern California and Baja California, Mexico. Typically found on ocean bluffs, and other open areas near the ocean.	<i>Present.</i> Observed in the project area during 2010 and 2011 focused surveys (Greer 2014). Historical locations within region but not in the project area (CDFW 2023b).
Fish				
<i>Eucyclogobius newberryi</i>	Tidewater goby	FE/SSC/-/None	Inhabits freshwater or brackish lagoons, estuaries, marshes, and freshwater tributaries that have shallow and still (but not stagnant) water ranging from northern Del Norte County south to San Diego County. Absent from areas where the coastline is steep or there are no lagoons/estuaries.	<i>Not Expected.</i> No known populations of this species occur south of Agua Hedionda Lagoon in Carlsbad, in northern San Diego County (CDFW 2023b).
Reptiles				
<i>Anniella stebbinsi</i>	Southern California legless lizard	None/SSC/-/None	Occurs in open grassland and scrub habitats.	<i>Present.</i> Observed during 2016 Dudek surveys. On wildlife list for KFMR (UC San Diego 2023). Suitable habitat is present in the project area in KFMR. Historical locations less than 1 mile from project area (Figure 12) (CDFW 2023b).

Table 11. Sensitive Plant and Wildlife Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Status		Habitat	Potential to Occur
		Federal/State/CRPR/MSCP	SAP		
<i>Arizona elegans occidentalis</i>	California glossy snake	None/SSC	None	Inhabits arid scrub, rocky washes, grasslands, and chaparral. Prefers microhabitats of open areas with friable (burrowing) soils.	<i>Not Expected.</i> Suitable scrub habitat limited to western edge of KFMR, which is bordered by development to the west and salt marsh to the east. Prefers arid, dry areas with more scrub and openings within. Historical locations known within 1 mile of project area but are likely extirpated (1890) (Figure 12) (CDFW 2023b).
<i>Aspidoscelis hyperythra beldingi</i>	Belding's orange-throated whiptail	None/WL	Covered	Occurs in coastal sage scrub, chaparral, edges of riparian woodlands, and washes. Also found in weedy, disturbed areas adjacent to these habitats. Important habitat requirements include open, sunny areas, shaded areas, and abundant insect prey base, particularly termites (<i>Reticulitermes</i> sp.).	<i>Moderate.</i> Suitable scrub habitat limited to western edge of KFMR, and weedy disturbed areas throughout the project area. Historical locations known within 1 mile of project area but are likely extirpated (1890) (Figure 12) (CDFW 2023b).
<i>Chelonia mydas</i>	Green sea turtle	FT	None/None/None	Main nesting sites for this species is in Michoacán, Mexico, and the Galapagos Islands in Ecuador. Occurs throughout tropical and subtropical waters of the Pacific. Found off the coast of Baja California, Mexico and La Jolla, California in the U.S.	<i>Moderate.</i> Suitable habitat within eelgrass beds in the marine waters of the project area. Known to occur in San Diego Bay, and permanently in La Jolla Shores in small numbers, although waters are typically colder than preferred by the species in marine waters of San Diego County.
<i>Crotalus ruber</i>	Red-diamond rattlesnake	None/SSC	None/None	Inhabits coastal chaparral, oak and pine woodlands, arid scrub, rocky grasslands, and cultivated areas. Found on the desert slopes of mountains and in rocky desert flats. Requires shaded areas for cover.	<i>Not Expected.</i> No suitable habitat present. Historical locations known within 1 mile of the project area but are unspecified (Figure 12) (SanGIS 2023).
<i>Phrynosoma blainvillii</i>	Blainville's horned lizard	None/SSC	None/None	Occurs in open areas of sandy soil and low vegetation in foothills, valleys, and semiarid mountains in grasslands coniferous forests, woodlands, and chaparral. Also found in lowlands within sandy washes with scattered shrubs and long dirt roads.	<i>Moderate.</i> Suitable habitat within coastal scrub along western edge of KFMR. Historical locations occur within 1 mile of the project area (Figure 12) (SanGIS 2023; CDFW 2023b).

Table 11. Sensitive Plant and Wildlife Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Status Federal/State/CRPR/MSCP SAP	Habitat	Potential to Occur
Birds				
<i>Accipiter cooperii</i>	Cooper's hawk	None/WL-/Covered	Occurs where stands of trees are present, including oak groves, mature riparian woodlands, and eucalyptus stands or other mature forests.	<i>Present.</i> Observed during 2016 Dudek surveys. On wildlife list for KFMR (UC San Diego 2023). Suitable nesting and foraging habitat present throughout the project area.
<i>Athene cunicularia hypugaea</i>	Western burrowing owl	None/SSC-/Covered	Occurs in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	<i>Moderate Foraging. Low Nesting.</i> Migrant and dispersing individuals may be observed foraging. Suitable habitat for nesting is extremely limited and therefore, breeding unlikely to occur within project area. Historical locations occur within 1 mile of the project area to the south (Figure 12) (CDFW 2023b).
<i>Calypte costae</i> (nesting)	Costa's hummingbird	BCC/None-/None	Occurs in desert scrub in the Sonoran and Mojave Deserts, and, riparian, chaparral and sage scrub areas on the coast.	<i>Present.</i> Observed during 2016 Dudek surveys. On wildlife list for KFMR (UC San Diego 2023). High potential to occur during breeding season in riparian and scrub habitats in project area.
<i>Charadrius alexandrinus nivosus</i> (nesting)	Western snowy plover	FT/SSC-/Covered	Nests on coasts in open sandy dunes with little to no vegetation, or barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds.	<i>Moderate Foraging. Low Nesting.</i> Known breeding populations of western snowy plover occur to the north in lagoons or to the south in Coronado, but not within 1 mile of the project area. Suitable sandy habitat limited in size and quantity in project area, therefore, foraging has moderate potential, but nesting has low potential. Recorded on wildlife list for KFMR (UC San Diego 2023). Snowy plover observed during 2016 by Dudek, but subspecies not confirmed.
<i>Chlidonias niger</i> (nesting colony)	Black tern	None/SSC-/None	Nests semi-colonially in freshwater marshes in northeastern California and in rice fields in the Central Valley.	<i>Present.</i> Observed during 2016 Dudek surveys. On wildlife list for KFMR (UC San Diego 2023). Not expected nesting; only found nesting in Northern California.

Table 11. Sensitive Plant and Wildlife Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Status		Habitat	Potential to Occur
		Federal/State/CRPR/MSCP	SAP		
<i>Circus cyaneus hudsonius</i>	Northern harrier	None/SSC	-/Covered	Nests in open wetlands (marshes, meadows, wet lightly grazed pastures, old fields, freshwater and brackish marshes). Also found nesting in grasslands and agricultural fields. Forages in grassland, scrub, emergent wetland, and other open habitats (including rangelands).	<i>Present.</i> Observed during 2016 Dudek surveys. On wildlife list for KFMR (UC San Diego 2023). High potential to be found in marsh habitat in KFMR and along Rose Creek. Foraging is likely more limited, occurring in undeveloped areas that lack dense human presence in the project area.
<i>Cistothorus palustris clarkae</i>	Clark's marsh wren	BCC/SSC	None/None	Occurs in freshwater and brackish marsh habitats dominated by bulrushes and cattails.	<i>Present.</i> Observed during 2016 Dudek surveys. On wildlife list for KFMR (UC San Diego 2023). It is unknown the date of the observance or the circumstances. This species requires brackish marsh dominated by bulrushes and cattails. Limited areas for nesting available within KFMR. Moderate potential to occur within marsh areas with dense cattails and bulrushes along Rose Creek.
<i>Elanus leucurus</i>	White-tailed kite	None/SSC	None/None	Occurs in loose soils (sand, loam, humus) in coastal dune, coastal sage scrub, woodland, and riparian habitat.	<i>Present.</i> Observed during 2016 Dudek surveys. High-quality Diegan coastal sage scrub and suitable loose, sandy soils occur in the project area.
<i>Eremophila alpestris actia</i>	California horned lark	None/WL	None/None	Occurs in grassland and beach habitats. Also found in disturbed lands, agricultural lands, and alpine fell fields in Sierras.	<i>Present.</i> On wildlife list for KFMR (UC San Diego 2023). High potential to be found nesting or foraging within KFMR.
<i>Falco peregrinus anatum</i>	American Peregrine falcon	None/FP	None/Covered	Occurs in open landscapes with cliffs (or skyscrapers) for nest sites, as well as along rivers and coastlines or in cities.	<i>Present.</i> Observed during 2016 Dudek surveys. On wildlife list for KFMR (UC San Diego 2023). High potential to be observed foraging within KFMR. Low potential to be found nesting within the project area.
<i>Gavia immer</i> (nesting)	Common loon	None/SSC	None/None	Migrates through and overwinters on San Diego County coastline (occasionally inland lakes), but nests on lakeshores or island near deep water in Canada and the northern U.S. states (Alaska).	<i>Present.</i> Observed during 2016 Dudek surveys. On wildlife list for KFMR (UC San Diego 2023). High potential to be observed during migration and overwintering. Not expected nesting.

Table 11. Sensitive Plant and Wildlife Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Status Federal/State/CRPR/MSCP SAP	Habitat	Potential to Occur
<i>Larus californicus</i> (nesting colony)	California gull	BCC/WL/None/None	Nests colonially outside San Diego County. Found during migration and winter in San Diego County.	<i>Present.</i> Observed during 2016 Dudek surveys. On wildlife list for KFMR (UC San Diego 2023). High potential to be observed during migration and overwintering. Not expected nesting.
<i>Numenius Americanus</i> (nesting)	Long-billed curlew	None/WL/None/None	Found in tidal mudflats, open flooded grassland, shallow freshwater margins, and wet meadows during migration and winter (only) in San Diego County.	<i>Present.</i> Observed during 2016 Dudek surveys. On wildlife list for KFMR (UC San Diego 2023). High potential to be observed foraging within KFMR and along Rose Creek. Not expected nesting within the project area.
<i>Pandion haliaetus</i>	Osprey	None/WL/None	Nests on human-made structures, rarely trees in San Diego County. Found near open waters both marine and freshwater to forage for fish.	<i>Present.</i> Observed during 2016 and 2022 surveys in KFMR (Figure 11). High potential to be observed foraging within open water areas of project area. High potential to be observed nesting on stadium lights within golf course and other locations.
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	BCC/SE/None/Covered	Occurs in coastal marshes dominated by pickleweed (<i>Salicornia</i> sp.).	<i>Present.</i> Observed during 2016 and 2022 surveys in KFMR (Figure 11). High potential to be found nesting and foraging with KFMR. Historical locations within 1 mile of the project area (Figure 12) (CDFW 2023b).
<i>Pelecanus occidentalis californicus</i>	California brown pelican	None/FP/None/Covered	Occurs along San Diego County's coast and nearby ocean during winter and migration. Some non-breeding individuals found during spring. Only long-term breeding colonies occur on Anacapa and Santa Barbara Islands.	<i>Present.</i> Observed during 2022 surveys flying along coast near KFMR (Figure 11). High potential to be observed foraging along the coast near the project area. Not expected nesting.
<i>Phalacrocorax auritus</i> (nesting colony)	Double-crested cormorant	None/WL/None	Non-breeding visitor on salt and freshwater within San Diego County. Nests on the ground, on cliff edges, trees, shrubs and in artificial surfaces on and near Channel Islands and coast lines and lakes elsewhere in the U.S.	<i>Present.</i> Observed during 2016 and 2022 surveys in Mission Bay (Figure 11). On wildlife list for KFMR (UC San Diego 2023). High potential to be observed foraging along the coast within the project area. Not expected nesting within the project area.

Table 11. Sensitive Plant and Wildlife Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Status		Habitat	Potential to Occur
		Federal/State/CRPR/MSCP	SAP		
<i>Polioptila californica</i>	Coastal California gnatcatcher	FT/SSC	/Covered	Nests within coastal sage scrub dominated by California sagebrush and flat-top buckwheat along the coast (avoiding nesting in those dominated by black and white sage, lemonadeberry and laurel sumac). Inland, can be found in sage scrub-grassland or chaparral habitat interface.	<i>Not Expected.</i> No suitable habitat available within the project area. Historical locations known within 1 mile of the project area (Figure 12) (CDFW 2023b).
<i>Rallus obsoletus levipes</i>	Light-footed Ridgway's rail	FE; FP/SE	/Covered	Occurs in coastal wetlands, brackish areas, coastal saline emergent wetlands with cordgrass (<i>Spartina</i> sp.) as the dominant vegetative cover.	<i>Present.</i> Observed during 2015 surveys and released by CDFW 2018 within the KFMR (Zemba et al. 2015a; Madriaga 2023). Suitable coastal wetland habitat with cordgrass available in KFMR. Moderate potential to be observed foraging and nesting along Rose Creek. Historical locations known within 1 mile of the project area (Figure 12) (CDFW 2023b).
<i>Rynchops niger</i>	Black skimmer	None/SSC	/Covered	Forages over open ocean areas and bays protected from open surf (lagoons, estuaries, inlets) in California, or inland on lakes in Florida and the Salton Sea in California. In San Diego County, nests in a large colony in the Salt Works in summer and winters in Mission Bay. Elsewhere less abundant on the coast, but a small colony occurs in Batiquitos Lagoon.	<i>Present.</i> Observed during 2016 Dudek surveys. On wildlife list for KFMR (UC San Diego 2022). High potential to be observed foraging along coastline in areas protected from the surf. Not expected nesting.
<i>Sternula antillarum browni</i> (nesting colony)	California least tern	FE, FP/SE	/Covered	Nests on open sandy dunes and flats lacking vegetation in colonies along California coastlines, in lagoons, bays, and estuaries.	<i>Present.</i> Observed during 2016 Dudek surveys. On wildlife list for KFMR (UC San Diego 2023). High potential to be observed foraging along coastline in KFMR and De Anza Cove. Not expected for nesting within the project area. Established colonies located elsewhere and open dune and flat areas protected from tides is limited within the project area. Historical locations within 1 mile of the project area (Figure 12) (CDFW 2023b).

Table 11. Sensitive Plant and Wildlife Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Status		Habitat	Potential to Occur
		Federal/State/CRPR/MSCP	SAP		
<i>Thalasseus elegans</i> (nesting colony)	Elegant tern	BCC/WL	/Covered	Nests on Isla Rasa in the Gulf of California and Salt Works in south San Diego Bay (Unitt 2014). Forages over the open ocean.	<i>Present.</i> Observed during 2016 Dudek surveys. On wildlife list for KFMR (UC San Diego 2023). High potential to be observed foraging along coastline in KFMR and De Anza Cove. Not expected nesting within the project area. Established colonies located elsewhere and open dune and flat areas protected from tides is limited within the project area. Historical locations within 1 mile of the project area (CDFW 2023b).
<i>Vireo bellii</i> ssp. <i>pusillus</i>	Least Bell's vireo	FE/SE	/Covered	Occurs in riparian woodland habitats with a dense, shrubby understory for concealment of nests. Winters outside California in Mexico.	<i>Not Expected.</i> No suitable habitat present. Historical locations within 1 mile of the project area (Figure 12) (CDFW 2023b).
Mammals					
<i>Chaetodipus fallax</i>	Northwestern San Diego pocket mouse	None/SSC	/None	Found in Southern California to central Baja California within sandy, herbaceous areas in coastal sage scrub habitats and grasslands.	<i>High.</i> Coastal sage scrub habitat available along western edge of KFMR. Historical locations within 1 mile of project area (Figure 12) (CDFW 2023b).
<i>Choeronycteris mexicana</i>	Mexican long-tongued bat	None/SSC	/None	Roosts in caves, mines, rock crevices, under exposed tree roots, and in buildings in San Diego County during migration (some may overwinter). Forages on nectar.	<i>High Roosting; High Foraging.</i> An abundance of ornamental plants can be found within the project area, especially near Campland by-the-Bay for foraging in migration and winter. Roosts are available in the abandoned structures and mobile homes within De Anza Cove. Historical locations within 1 mile of project area (Figure 12) (CDFW 2023b).
<i>Nyctinomops femorosaccus</i>	Pocketed free-tailed bat	None/SSC	/None	Occurs in desert scrub, riparian with high vertical cliff faces or rocky outcrops, and abandoned quarries.	<i>Not Expected.</i> No vertical cliff faces or rocky outcrops available within project area. Historical locations within 1 mile of project area (Figure 12) (CDFW 2023b).

Table 11. Sensitive Plant and Wildlife Species with Potential to Occur in the Project Area

Scientific Name	Common Name	Status		Habitat	Potential to Occur
		Federal/State/CRPR/MSCP SAP			
<i>Nyctinomops macrotis</i>	Big free-tailed bat	None/SSC/—/None		Roosts in steep, rocky cliff faces, rocky outcrops, and abandoned quarries. Has been found on several occasions roosting high in or on tall structures in Balboa Park and La Jolla.	<i>Not Expected.</i> No suitable habitat within the project area. No colonies occur within San Diego County. Migrants may be found on tall buildings outside the project area. Historical location from 1970 when an individual was found in an apartment in Mission Beach (CDFW 2023a; SDNHM 2017). Historical locations within 1 mile of project area (Figure 12) (CDFW 2023b).

Notes: BCC = Bird of Conservation Concern; FC = federal candidate; FP = federally protected; FE = federally endangered; FT = federally threatened; Covered = City of San Diego MSCP SAP covered species; SE = state endangered; None = No status indicated for species; SE = state endangered; SSC = state species of special concern; WL = state watch list species

CNPS CRPR Rare Plant Ranking

1B = rare, threatened, or endangered in California and elsewhere; 2B = rare, threatened, or endangered in California but more common elsewhere; 3 = a watch list of species about which more information is needed; 4 = a watch list of species of limited distribution

Threat Ranks: .1 = seriously threatened; .2 = moderately threatened

¹ Under review for protection under FESA

Four sensitive plant species and 27 sensitive wildlife species were observed in the project area during the 2016 and 2022 surveys. However, only two sensitive plants and five sensitive wildlife were confirmed present and mapped in the project area during the 2022 surveys (Figure 11). As previously mentioned, no focused or protocol species surveys were conducted in 2022. Sensitive plant and wildlife species that were observed or have a high potential to occur in the project area are described in detail in Sections 5.4.2, Sensitive Plant Species Observed, through 5.4.5, Sensitive Wildlife Species Not Observed With a High Potential to Occur.

5.4.1 Critical Habitat

The potential presence of critical habitat on the project area was also analyzed. No critical habitat for sensitive plant or wildlife species occurs in or within 5 miles of the project area (CDFW 2023a, 2023b; SanGIS 2023; USFWS 2023b).

5.4.2 Sensitive Plant Species Observed

The following sensitive plant species were directly observed in the project area during biological surveys: California seablite, Palmer's frankenia, San Diego marsh-elder, and southwestern spiny rush. These four species are not designated as narrow endemic or covered under the MSCP SAP. The four sensitive plant species observed in the project area are described in the following subsections (Figure 11).

5.4.2.1 California Seablite (*Suaeda californica*), FE, CRPR 1B.1

California seablite, an endemic California native shrub, is a CRPR 1B.1 and federally endangered species (CNPS 2023). California seablite is mound-like shrub found in coastal salt marsh, and wetland riparian communities at elevations less than 16 feet amsl. It is typically 80 centimeters tall maximum with hairless or slightly hairy succulent green or red-tinged herbage. Woody stems of this plant have branches that are covered with knoblike bases of old leaves. This species' bloom period is between July and October.

California seablite was observed in the southern coastal salt marsh of the KFMR/NWP during the 2016 biological surveys. This species' presence in the KFMR/NWP was not confirmed during the 2022 surveys. However, no focused sensitive plant survey was conducted, and this species could have gone unidentified. An unidentified species of *Suaeda* was observed in the western portion of KFMR/NWP during the October 2022 survey.

5.4.2.2 Palmer's Frankenia (*Frankenia palmeri*), CRPR 2B.1

Palmer's frankenia, a California native perennial shrub, has a CRPR 2B.1 (CNPS 2023). This species is found in salt marsh, dune, playa, coastal strand, coastal salt marsh, alkali sink, and wetland riparian communities at elevations less than 1,500 feet amsl. Thriving in saline soils, this

species is a tangling shrub less than 1 meter tall with spreading stems that are lined with clusters of knobby, fleshy leaves. Palmer's frankenia's blooming period is between May and July.

Palmer's frankenia was observed in the southern coastal salt marsh of the KFMR/NWP during the 2016 biological surveys. This species' presence in the KFMR/NWP was not confirmed during the 2022 surveys. However, no focused sensitive plant survey was conducted, and this species could have gone unidentified.

5.4.2.3 San Diego Marsh-Elder (*Iva hayesiana*), CRPR 2B.2

San Diego marsh-elder, a dicot and California native perennial herb, has a CRPR 2B.2 (CNPS 2023). San Diego marsh-elder is distributed along the coast of San Diego County in alkali sink and wetland riparian habitats at elevations of less than 980 feet amsl. It is a shrubby herb that reaches maximum heights of 1 meter, with green, oval-shaped leaves that are fleshy, hairy, and aromatic. This species' bloom period is between April and October.

San Diego marsh-elder was observed in the Diegan coastal sage scrub in the northwestern side of the KFMR/NWP during the 2016 biological surveys and its presence was confirmed during the 2022 surveys (Figure 11). A patch of approximately five individual San Diego marsh-elder was observed in the Diegan coastal sage scrub in the northern portion of the KFMR/NWP surrounding the temporary educational building managed by UC San Diego.

5.4.2.4 Southwestern Spiny Rush (*Juncus acutus* ssp. *leopoldii*), CRPR 4.2

Southwestern spiny rush is a sharp-pointed rush (monocot) and a CRPR 4.2 species (CNPS 2023). Southwestern spiny rush occurs in coastal dunes with mesic soils, meadows and alkaline seeps, coastal saltwater marshes, and swamps at elevations between 10 and 2,955 feet amsl. The stems of this plant emerge from a central cluster and have sharp, terminal spines. This species can grow to be almost 1.5 meters tall and appears "tussocky" and brown and green. Southwestern spiny rush blooms May through June.

Two southwestern spiny rush individuals were observed in the Diegan coastal sage scrub in the northwestern side of the KFMR/NWP during the 2022 surveys (Figure 11).

5.4.3 Sensitive Plant Species Not Observed With a High Potential to Occur

Based on the literature and database review, 24 sensitive plant species were considered for potential to occur in the project area, but only two species, estuary seablite (*Suaeda esteroa*) and Nuttall's acmispon (*Acmispon prostratus*), were determined to have a high potential to occur in the project area but were not observed during the biological resources surveys (Table 7). These two species are not designated as narrow endemic or covered under the MSCP SAP. The two sensitive plant species with a high potential to occur in the project area are described in the following subsections.

5.4.3.1 Estuary Seablite (*Suaeda esteroa*), CRPR 1B.2

Estuary seablite is a CRPR 1B.2 species. Estuary seablite occurs in coastal salt marshes and swamps from sea level up to 15 feet amsl. It is a yellow-green to reddish subshrub with fleshy, succulent leaves and typically blooms from July through October but is known to bloom as early as January through May. Suitable habitat for estuary seablite is present in the KFMR coastal salt marsh in the western project area. Historical locations for this species occur within the region but not in the project area (Figure 12) (CDFW 2023b). An unidentified species of *Suaeda* was observed in the western portion of KFMR/NWP.

5.4.3.2 Nuttall's Acmispon (*Acmispon prostratus*), CRPR 1B.1

Nuttall's acmispon is a CRPR 1B.1 species. Nuttall's acmispon occurs in coastal dunes and sandy coastal scrub from sea level up to 35 feet amsl. This species is a shrubby perennial legume that has yellow flowers with red wings and blooms from March through June. Suitable habitat for Nuttall's acmispon is present in the sandy coastal scrub along western edge of the KFMR in the western portion of the project area. This species was recently located (2012) at the edge of the project area along the western edge of the KFMR but its presence was not confirmed during the 2022 surveys (Figure 12) (CDFW 2023b).

5.4.4 Sensitive Wildlife Species Observed

The following 27 sensitive wildlife species were observed in the project area throughout biological surveys conducted for the project: American peregrine falcon (*Falco peregrinus anatum*), Belding's savannah sparrow, black skimmer (*Rynchops niger*), black tern (*Chlidonias niger*), brant (*Branta bernicla*), California brown pelican (*Pelecanus occidentalis californicus*), California gull (*Larus californicus*), California horned lark (*Eremophila alpestris actia*), California least tern (*Sternula antillarum browni*), Caspian tern (*Hydroprogne caspia*), Clark's marsh wren (*Cistothorus palustris clarkae*), common loon (*Gavia immer*), Cooper's hawk (*Accipiter cooperii*), Costa's hummingbird (*Calypte costae*), double-crested cormorant (*Phalacrocorax auritus*), elegant tern (*Thalasseus elegans*), light-footed Ridgway's rail (*Rallus obsoletus levipes*), long-billed curlew (*Numenius americanus*), monarch butterfly (*Danaus plexippus*), northern harrier (*Circus hudsonius*), osprey (*Pandion haliaetus*), reddish egret (*Egretta rufescens*), redhead (*Aythya americana*), rufous hummingbird (*Selasphorus rufus*), Southern California legless lizard (*Anniella stebbinsi*), wandering skipper, and white-tailed kite (*Elanus leucurus*). The sensitive wildlife species observed during the 2022 biological surveys are shown on Figure 11. The 27 sensitive wildlife species observed in the project area are described in the following subsections. The ASMDs for the sensitive wildlife species covered under the MSCP SAP are also described below as applicable¹ (City of San Diego 1997).

¹ The MSCP SAP does not include ASMDs for American peregrine falcon, California brown pelican, and reddish egret.

5.4.4.1 American Peregrine Falcon (*Falco peregrinus anatum*), FDL, BCC/SDL, FP/MSCP SAP Covered

American peregrine falcon is a federally delisted, Bird of Conservation Concern, state delisted, CDFW fully protected, and MSCP SAP covered species. American peregrine falcon is a large falcon with long, pointed wings and a long tail, and adults are blue-gray above with barred underparts and dark head. This species inhabits riparian woodland, forest, inland wetlands, and coastal habitats (Unitt 2004). This subspecies migrates throughout California, and breeds along the coast of Southern and Central California, inland north coastal mountains, Klamath Mountains, Cascade Range, Sierra Nevada, and Channel Islands. Approximately 15 pairs of American peregrine falcons are known in San Diego County, with several pairs known to nest along the coast in Salt Works, La Jolla Torrey Pines, and downtown San Diego, including the Coronado Bay Bridge, over the last 35 years. American peregrine falcons eat a variety of birds and bats and are known to occasionally steal fish and rodents captured by other raptors.

American peregrine falcon was observed in the project area during the 2016 biological surveys. This species was not observed during the 2022 biological surveys. While suitable foraging habitat and prey is present in the marsh and open water areas throughout of the project area, no cliffs or high ride (or bridge) ledges suitable for nesting are present. Only one ground nest has ever been documented for this species in San Diego County, on Salt Works, in South Bay, in 2006.

The MSCP SAP does not include ASMDs for American peregrine falcon (City of San Diego 1997).

5.4.4.2 Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*), SE/MSCP SAP Covered

Belding's savannah sparrow, a state listed as endangered and MSCP SAP covered species, is a small, heavily and dark-streaked subspecies of savannah sparrow endemic to marshes. It is a wetland-dependent bird is found year-round in Southern California coastal salt marshes. Belding's savannah sparrow is ecologically associated with dense pickleweed, where most nests are found. They can also be found nesting in other dense, ground cover marsh species (i.e., saltgrass) where they weave their nest into the plants creating a tunnel entrance into canopy which conceals the nest. Its habitat, and in turn its population size, has been greatly reduced by the impacts of increasing human populations (Zemba et al. 2015b). During summer, it mainly consumes insects and will consume seeds and invertebrates in winter, as available.

Belding's savannah sparrow was observed in the KFMR/NWP during the 2016 and 2022 biological surveys. A total of 26 males, representing the potential for up to 26 pairs, were observed within the KFMR/NWP in 2015 (Zemba et al. 2015b). At least six Belding's savannah sparrow individuals were observed foraging throughout the KFMR/NWP during the 2022 biological surveys (Figure 11).

The ASMD under the MSCP SAP for Belding's savannah sparrow in the project area includes specific measures to protect against detrimental edge effects to the species (City of San Diego 1997). See Table 4 for ASMD consistency analysis.

5.4.4.3 Black Skimmer (*Rynchops niger*), BCC/SSC

Black skimmer is a Bird of Conservation Concern and CDFW Species of Special Concern. This species is a medium-sized tern-like seabird with very long wings and an outsized bill in which the lower mandible is longer than the upper. Adults are starkly black above and white below, with black-and-red bill and orange-red legs. This species inhabits coastal estuaries and river mouths in Southern California. Black skimmer is a year-round resident in San Diego Bay (Unitt 2004). Black skimmer requires shallow, calm water for foraging on fish, and sand bars, beaches, or dikes for roosting and nesting.

Black skimmer was observed in the project area during the 2016 biological surveys. Although this species was not observed during the 2022 biological surveys and limited suitable nesting habitat is present, suitable foraging habitat and available prey occurs within the open marine waters of the project area.

5.4.4.4 Black Tern (*Chlidonias niger*), SSC

Black tern, a CDFW species of special concern, is a small seabird with a thin, pointed bill, long, pointed wings, a shallowly forked tail, and short legs. Adults in breeding plumage are dark gray above with black head and black underparts, with pale underwings and undertail. Black tern is a common spring and summer visitor in California, however, are primarily concentrated around the central coast. During migration, black terns use the Salton Sea, and few now reach the coast of Southern California (Unitt 2004). This species is found in fresh emergent wetlands, bays, salt ponds, river mouths, and pelagic waters, and is restricted to freshwater habitats while breeding. This species forages by hovering above wet meadows and fresh emergent wetlands feeding on small fish and insects, and nests in dense wetland vegetation.

Black tern was observed in the project area during the 2016 biological surveys. This species was not observed during the 2022 biological surveys. While suitable foraging habitat is present in the marsh and open water areas throughout of the project area, this species is an uncommon migrant and not known to nest in coastal San Diego County.

5.4.4.5 Brant (*Branta bernicla*), SSC

Brant, a CDFW species of special concern, is a small goose with a stubby bill and relatively short neck. Adults have a black head, neck, and breast with variable white neck markings, brown wings, white undertail, and pale flanks and belly. Brant is a common winter resident along the California coast. This species is found in large, shallow estuaries with eelgrass beds, primarily in Humboldt,

Tomales, Morro, and San Diego Bays and in nearby marine waters. In San Diego County, brant winter in San Diego Bay, primarily along the Chula Vista bayfront and elsewhere in large stands of eelgrass occur (Unitt 2004). Migration southbound usually occurs offshore. Brant feeds on eelgrass and forages in shallow, marine waters along indented shorelines, within lagoons, or behind barrier beaches.

Brant was observed in the project area during the 2016 biological surveys. While this species was not observed during the 2022 biological surveys, wintering populations of brant are documented in large numbers in southern San Diego Bay, approximately 12 miles south of the project area (Unitt 2004). The eelgrass beds in the project area provide suitable foraging habitat for brant and may be used as a stopover during migration.

5.4.4.6 California Brown Pelican (*Pelecanus occidentalis californicus*), FP, MSCP SAP Covered

California brown pelican is a CDFW fully protected and MSCP SAP covered species. California brown pelican is a large, stocky seabird with very long wings, a thin neck, and very long bill that has a stretchy throat pouch for capturing fish. Adults are gray-brown with yellow heads and white necks. This species occurs along San Diego County's coast and nearby ocean during winter and migration (Unitt 2004). Some non-breeding individuals have been found remaining in the County during spring. The only long-term California brown pelican breeding colonies occur on the Anacapa and Santa Barbara Islands. This species primarily eats small fish that form schools near the surface of the water. But have been known to steal food from other seabirds, scavenge dead animals, and eat invertebrates such as prawns.

California brown pelican was observed during the 2022 biological surveys (Figure 11). At least one individual was observed flying along the coast near KFMR. There is a high potential for this species to be observed foraging along the coast near the project area. However, California brown pelican are not expected to nest in the project area.

The MSCP SAP does not include ASMDs for California brown pelican (City of San Diego 1997).

5.4.4.7 California Gull (*Larus californicus*), WL

California gull, a CDFW watch list species, is a medium-sized gull with a rounded head, slender bill, and long, pointed wings. Breeding adults have a white head with a medium gray back, yellow legs, and a dark eye. California gull is a common nester at alkali and freshwater lacustrine habitats. California gull prefers coastal habitats including sandy beaches, mudflats, rocky intertidal, pelagic areas of marine and estuarine habitats, and fresh and saline emergent wetlands (Unitt 2004). This species roosts along shorelines, in landfills, in pastures, and on islands. This species is an omnivore, eating a wide variety of food items, often scavenging their food from the ground, and have been known to dive into the water to catch fish.

California gull was observed flying over the project area during the 2016 and 2022 biological surveys (Figure 11). Suitable nesting and foraging habitat occur throughout the project area, particularly along the shoreline of Mission Bay.

5.4.4.8 California Horned Lark (*Eremophila alpestris actia*), WL

California horned lark, a CDFW watch list species, is a small, long-bodied songbird with a short, thin bill, short neck, and rounded head, sometimes with two small “horns” of feathers sticking up toward the back of the head. Adult males are sandy to rusty-brown above, with a black chest band, a curving black mask, yellow-white face and throat, and head stripes that extend to the back of the head sometimes raised into tiny “horns.” This species occurs primarily in grassland and beach habitats but can also be found in disturbed lands, agricultural lands, and alpine fell fields in Sierras (Unitt 2004). California horned lark primarily forage for seeds on the ground but occasionally perch on plants to harvest seeds from seed heads.

California horned lark was observed in the project area during biological surveys in 2016. However, the date of the observance or the circumstances are unknown. There is a high potential for this species to be found nesting or foraging in the KFMR in the western portion of the project area.

5.4.4.9 California Least Tern (*Sternula antillarum browni*), FE/SE, FP, MSCP SAP Covered

California least tern is federally listed as endangered, state listed as endangered, is a CDFW fully protected species, and MSCP SAP covered species. California least tern is a very small and slim seabird with long, narrow wings and body and a slender, sharp bill. Breeding adults are pale gray and white, with a black cap, white forehead, and yellow bill. This species breeds along marine and estuarine shores, and in abandoned salt ponds in April in Southern California and May in Northern California (Massey 1971; Anderson and Rigney 1980). This species is a resident in lacustrine waters near the coast of Southern California (Garrett and Dunn 1981). California least tern nests on barren to sparsely vegetated habitat with sandy or gravelly substrate near water (Zeiner et al. 1988–1990). California least tern feed on small fish they catch by diving into the water.

California least tern was observed during a 2016 biological reconnaissance survey. However, this species was not observed in the project area during the 2022 surveys. Suitable nesting habitat for California least tern is limited to the northern portion of the KFMR/NWP where sandy soils in the sparsely vegetated disturbed habitat occurs; however, the surrounding urban development and human activity in proximity could reduce the suitability of the project area for this species. Suitable foraging habitat occurs within the marsh and open water of the project area that could support this species’ use of the project area.

ASMDs under the MSCP SAP for California least tern in the project area include protection of nesting sites from human disturbance during the breeding season, predator control, and specific

measures to protect against detrimental edge effects to the species (City of San Diego 1997). Incidental take (during the breeding season) associated with maintenance or removal of dikes or levees, and beach maintenance or enhancement is not authorized except as specifically approved on a case-by-case basis by the wildlife agencies (City of San Diego 1997). See Table 4 for ASMD consistency analysis.

5.4.4.10 Caspian Tern (*Hydroprogne caspia*), BCC

Caspian tern, a bird of conservation concern, is a large, heavy-bodied seabird with a large head, a thick, straight, pointed bill, shallowly forked tail, and long, pointed wings. Adults are white overall with pale gray underwings with a black crown. This species nests on sandy estuarine shores, levees in salt ponds, and islands in alkali and freshwater lakes, and forages in lacustrine, riverine, and fresh and saline emergent wetland habitats along the California coast. Caspian terns nest in colonies and feeds on small fish in freshwater lakes, estuaries, and salt ponds. In San Diego County, a large colony of Caspian tern has occupied the salt ponds in southern San Diego Bay for at least half a century (Unitt et al. 2004). This species eats primarily fish captured by diving into the water but is known to supplement their diet with crustaceans such as crayfish and occasionally large insects.

Caspian tern was observed in the project area during the 2016 biological surveys. Although this species was not observed during the 2022 biological surveys, suitable foraging habitat and available prey occurs within the open water habitats on the project area. Further, the project area could be used as foraging habitat for the known Caspian tern colony approximately 12 miles south in southern San Diego Bay.

5.4.4.11 Clark's Marsh Wren (*Cistothorus palustris clarkae*), BCC, SSC

Clark's marsh wren is a Bird of Conservation Concern and CDFW Species of Special Concern. Clark's marsh wren is a rusty-brown colored, small, round-bodied wren with a short tail, thin bill, and short wings. This species occurs in freshwater and brackish marsh habitats dominated by bulrushes and cattails (Unitt et al. 2004). Clark's marsh wren forage close to water where they pick insects and spiders from stems and leaves of marsh vegetation.

Clark's marsh wren was observed in the project area during the 2016 biological surveys. However, the date of the observance or the circumstances are unknown. This species requires brackish marsh habitat dominated by bulrushes and cattails. Suitable nesting habitat for Clark's marsh wren is limited within the KFMR in the project area. There is moderate potential for this species to occur within the marsh areas with dense cattails and bulrushes along Rose Creek in the central portion of the project area.

5.4.4.12 Common Loon (*Gavia immer*), SSC

Common loon, an CDFW species of special concern, is a large waterbird with a rounded head, sharply pointed bill, long body, and short tail. Adults have a black head and bill, black and white spotted back, and white breast during the summer. Common loon is a resident in estuarine and subtidal marine habitats along the coast in California. This species is a common winter visitor to San Diego County along the coast in both ocean near shore and tidal bays and estuaries, with some documentation of wintering on large inland lakes (Unitt et al. 2004). Deep water provides better cover for the fish they feed on, and this species requires deep freshwater lakes with sufficient food. The common loon prefers to nest on small islets and also uses protected sites on shore concealed by rocks or vegetation near water.

Common loon was observed in the project area during the 2016 biological surveys. This species was not observed during the 2022 biological surveys. While this species has been documented visiting coastal San Diego County, no suitable deep freshwater lake habitat suitable for foraging with nearby nesting habitat is present in the project area.

5.4.4.13 Cooper's hawk (*Accipiter cooperii*), WL, MSCP SAP Covered

Cooper's hawk is a CDFW watch list and MSCP SAP covered species. It is a medium-sized hawk with rounded wings and a long tail with a rounded tip. Adults are blue-gray above with reddish bars on their underparts and a thickly banded tail. It inhabits most wooded parts of California year-round at elevations from sea level to above 9,000 feet amsl. Cooper's hawk once strictly preferred dense coast live oak forests or riparian forests and woodlands usually near water. Since the latter part of the twentieth century, Cooper's hawk has adapted to urban settings tremendously and is now as ubiquitous in urban eucalyptus woodland settings as it is in natural habitats. In the County, Cooper's hawk still uses oaks for nesting, but documentation shows twice as many nests in eucalyptus trees than in oaks. The species will also nest in willow, pine, redwood, and avocado trees and, in all tree species, will construct nests high in the tree but below the canopy (Unitt et al. 2004). Cooper's hawk pursues prey from perches, especially birds, but will also feed on small mammals, reptiles, or amphibians.

Cooper's hawk was observed in the project area during the 2016 biological surveys. This species was not observed during the 2022 biological surveys; however, suitable foraging habitat occurs within the native and non-native vegetation and land cover types in the project area. Suitable nesting habitat for Cooper's hawk is limited to the ornamental trees within and along the edges of the developed land of Campland, De Anza Cove, and the MBTAG.

The ASMD under the MSCP SAP for Cooper's hawk in the project area includes establishment of 300-foot impact avoidance areas around active nests (City of San Diego 1997).

5.4.4.14 Costa's Hummingbird (*Calypte costae*), BCC

Costa's hummingbird, a bird of conservation concern, is small and compact, with short wings and tail. Adult males have purple iridescent crown and gorget (throat patch), which flares out along the sides of their neck, and pale green back and vest. Costa's hummingbird is a common summer resident in Southern California and winters along the southern coast and southern deserts (Unitt et al. 2004). This species occurs in a variety of habitats throughout San Diego County, including arid habitats, desert washes, edges of desert riparian and valley foothill riparian, coastal scrub, desert scrub, desert succulent shrub, lower-elevation chaparral, and palm oasis. Costa's hummingbird nests in a variety of trees, cacti, shrubs, woody forbs, and vines at an average of 5 feet in height. This species forages on flowers, primarily desert blooms in the late winter and spring, and flowering sage scrub and chaparral plants in the spring and summer.

Costa's hummingbird was observed in the project area during the 2016 biological surveys. This species was not observed during the 2022 biological surveys, and limited suitable habitat occurs in the project area. Within the project area, flowers preferred by Costa's hummingbird are limited to the coastal scrub in the northwestern portion of the KFMR/NWP and in the ornamental vegetation in the developed areas of Campland, De Anza Cove, and the MBTAG.

5.4.4.15 Double-Crested Cormorant (*Phalacrocorax auritus*), WL

Double-crested cormorant, a CDFW watch list species, is a large waterbird with a small head, long, kinked neck, and a thin, strongly hooked bill. Adults are brown-black with a small patch of yellow-orange skin on the face. Double-crested cormorants inhabit coasts and banks of inland lakes, and fresh, salt, and estuarine waters (Unitt et al. 2004). This species resides along the entire coast of California, and nests on undisturbed cliffs, rugged slopes, and live or dead trees. Double-crested cormorants perch beside open water on unvegetated surfaces and require an elevated perch or open length of water for take-off. This species eats primarily fish captured by swimming underwater, with just a few insects, crustaceans, or amphibians supplementing their diet.

Double-crested cormorants were observed swimming and perching along the edge of the open water of the project area during the 2016 and 2022 biological surveys (Figure 11). Although no suitable nesting habitat is present, the large area of open water in the project area provides suitable foraging habitat for this species.

5.4.4.16 Elegant Tern (*Thalasseus elegans*), WL

Elegant tern, a CDFW watch list species, is a medium-sized, slender tern with a long, thin, slightly drooping bill, wings that are long, slender and pointed, and a medium-length forked tail. Breeding adults are pale gray above and white-pink below, with a shaggy black crest, orange bill, dark gray outer primaries, and dark legs. Elegant tern is a post-nesting visitor to Southern California coastal areas arriving from breeding grounds in Mexico. However, there is a small nesting colony in San Diego Bay,

and post-breeders frequent seacoasts, mudflats, bays, estuaries, and lagoons (Unitt et al. 2004). This species prefers habitats along inshore coastal waters, bays, estuaries, and harbors. This species feeds on fish in shallow ocean waters and congregates on beaches and tideflats when not feeding.

Elegant tern was observed in the project area during the 2016 biological surveys. Although this species was not observed during the 2022 biological surveys, suitable foraging habitat and available prey occurs in the open water habitats in the project area. Further, the project area could be used as foraging habitat for the known nesting colony approximately 12 miles south in southern San Diego Bay.

5.4.4.17 Light-Footed Ridgway's Rail, (*Rallus obsoletus levipes*), FE/SE, FP/MSCP SAP Covered

The light-footed Ridgway's rail is federally listed as endangered and state listed as endangered, is a CDFW fully protected species, and is an MSCP SAP covered species. Light-footed Ridgway's rail is a medium-sized, chicken-like marsh bird with short tail, long, slightly down-curved bill, and rounded wings. Adults are gray or reddish with dull stripes along their flanks. This species is a common yearlong resident in coastal saline emergent wetlands along Southern California from Santa Barbara to San Diego Counties (Zeiner et al. 1988–1990). This species forages in higher marsh vegetation, along vegetation and mudflat interface, and along tidal creeks. Light-footed Ridgway's rail prefers emergent wetland dominated by pickleweed and California cordgrass. This species nests in lower saline emergent wetlands and builds a platform concealed by a canopy of vegetation (Harvey 1980; Zembal and Massey 1983). Light-footed Ridgway's rail is opportunistic and omnivorous, eating whatever is available, including crabs, crustaceans, fish, eggs, and plant matter.

A total of 33 pairs and two “keking” male light-footed Ridgway's rails were observed in 2015 in the KFMR/NWP (Zembal et al. 2015a). In addition, the CDFW released this species at the KFMR/NWP in September 2018 (Madriaga 2023). Ridgway's rail was not observed in the project area during the 2022 surveys. The marsh vegetation observed in the KFMR/NWP is low-growing and may not provide the concealment taller marsh plants provide, as is preferred by this species for nesting. Further, the surrounding urban development and human activity in proximity to the marsh could reduce the suitability of the project area for Ridgway's rail.

ASMDs under the MSCP SAP for light-footed Ridgway's rail in the project area include active management of wetlands to ensure a healthy tidal saltmarsh environment and specific measures to protect against detrimental edge effects to the species (City of San Diego 1997). See Table 4 for ASMD consistency analysis.

5.4.4.18 Long-Billed Curlew (*Numenius americanus*), BCC/WL

Long-billed curlew is a bird of conservation concern and CDFW watch list species. Long-billed curlew is a long-legged shore bird with a very long, thin, curved bill, long neck, and small rounded

head. Adults are speckled and barred in browns above with a pale cinnamon wash throughout and a plain cinnamon belly. Observations of this species in winter range from uncommon to relatively common, along most of the California coast. It is primarily a migrant species and/or winter visitor in San Diego County and has been documented frequently in southern San Diego Bay during migration or over winter (Unitt et al. 2004). Long-billed curlew prefers large coastal estuaries, upland herbaceous areas, and cropland habitats and feeds on aquatic invertebrates in intertidal mudflats. Long-billed curlew nests on elevated interior grasslands and wet meadows adjacent to lakes or marshes.

Long-billed curlew was observed in the project area during the 2016 biological surveys. Although this species was not observed during the 2022 biological surveys and no suitable nesting habitat is present, suitable foraging habitat and available prey occurs within the marsh and mudflats of the KFMR/NWP in the western portion of the project area.

5.4.4.19 Monarch Butterfly (*Danaus plexippus*), FC

The monarch butterfly is under review for protection under FESA as of March 2020 (USFWS 2021). Monarch butterfly wings are a deep orange with black borders and veins, and white spots along the edges. The underside of the wings is pale orange. This species occurs in patches of milkweed (*Asclepias* sp.), the monarch caterpillar host plant. Monarch butterflies are found across North America wherever suitable feeding, breeding, and overwintering habitat exists. This species uses eucalyptus, pine, and cypress trees for autumnal and winter roost sites. Adult monarchs feed on the nectar from a wide variety of flowers and flowering plants.

Adult monarch butterflies were observed flying through the project area during the 2022 surveys (Figure 11). No milkweed patches occur in the project area that would be suitable for monarch butterfly caterpillars to occupy. Ornamental trees suitable for monarch overwintering habitat are present in and along the edges of the developed land of Campland, De Anza Cove, and the MBTAG.

5.4.4.20 Northern Harrier (*Circus hudsonius*), SSC/MSCP SAP Covered

Northern harrier is an CDFW species of special concern and MSCP SAP covered species. Northern harrier is a slender, medium-sized raptor with long, broad wings, a long, rounded tail, a flat, owl-like face, and a sharply hooked bill. Adult males are gray above and whitish below with black wingtips, a dark trailing edge to the wing, and a black-banded tail. This species uses a wide variety of open habitats in California, including deserts, coastal sand dunes, pasturelands, croplands, dry plains, grasslands, estuaries, flood plains, and marshes. Northern harrier also forages over coastal sage scrub or other open scrub communities hunting small mammals, reptiles, amphibians, and birds. Nesting areas are associated with marshes, pastures, grasslands, prairies, croplands, desert shrub steppe, and riparian woodland (Unitt et al. 2004). Winter habitats similarly include a variety of open habitats dominated by herbaceous cover. Northern harrier populations are most concentrated in areas with low vegetation.

Northern harrier was observed in the project area during the 2016 biological surveys. This species was not observed during the 2022 biological surveys. However, suitable foraging habitat occurs within the native and non-native vegetation and land cover types in the project area. While no riparian woodland suitable nesting habitat for northern harrier occurs in the project area, mature ornamental trees within and along the edges of the developed land of Campland, De Anza Cove, and the MBTAG could be used due to the nearby foraging habitat.

ASMDs under the MSCP SAP for northern harrier in the project area include establishment of an impact avoidance area (900 feet or maximum possible within the preserve) around active nests. In addition, the preserve management coordination group shall coordinate efforts to manage for wintering northern harriers' foraging habitat within the MSCP preserves (City of San Diego 1997). See Table 4 for ASMD consistency analysis.

5.4.4.21 Osprey (*Pandion haliaetus*), WL

Osprey is a CDFW watch list species. Osprey are very large, slender-bodied hawk with long, narrow wings, and long legs. Adults are brown above and white below, with a white head and broad brown stripe through the eye. This species is a common resident in much of coastal San Diego County, occurring in small numbers along the coast and on inland lakes (Unitt et al. 2004). Osprey build huge stick nests that are typically used year after year, augmented with new sticks each season. Their tendency to use human-made structures is well documented in San Diego County, and their most frequently used nesting structures include racks of floodlights for ballfields (Unitt et al. 2004). This species has been observed nesting within San Diego County at inland lakes and urban areas in proximity to the coast but is known to occur more widely in winter than during breeding season. Osprey eat almost exclusively fish captured from the surface of the water but have been known to occasionally scavenge dead birds, snakes, small mammals, and salamanders.

Osprey were also observed hunting over the open water of Mission Bay in the project area during the 2016 and 2022 biological surveys (Figure 11). Although osprey nesting has not been observed within the project area, this species is commonly observed adjacent to the project area and throughout Mission Bay, including an osprey pair recorded nesting on a light structure at Robb Athletic Field approximately 4 miles southwest of the project area.

5.4.4.22 Reddish Egret (*Egretta rufescens*), MSCP SAP Covered

Reddish egret, an MSCP SAP covered species, is a large heron with long, sturdy legs, long neck, and a thick, dagger-like bill. All adults have two-toned bills (pink at the base and black at the tip) and blue legs; however, dark morph adults are rich grayish blue bodies with vivid pinkish-cinnamon head and neck while white morph adults are snow white overall. Reddish egret is a non-breeding visitor along the coast of Southern California, with breeding occurring primarily in the Caribbean. San Diego County is the northernmost limit of this species' usual range along the

Pacific coast (Unitt et al. 2004). This species prefers marsh habitat and is an active forager in coastal shallow salt waters, feeding on fish.

Reddish egret was observed in the project area during the 2016 biological surveys. Although this species was not observed during the 2022 biological surveys and this species is not known to nest in the County, suitable foraging habitat and available prey occurs within the marsh and shallow edges of the open waters of the project area.

The MSCP SAP does not include ASMDs for reddish egret (City of San Diego 1997).

5.4.4.23 Redhead (*Aythya americana*), SSC

Redhead, an CDFW species of special concern, is a medium-sized diving duck with a smoothly rounded head and moderately large bill. Adult males are a mixture of cinnamon head, black breast and tail, and gray body, with a black-tipped gray bill. In the County, Redheads are known to winter in Mission Bay and occasionally appear on lakes and lagoons elsewhere in the area. This species breeds in the Central Valley, coastal Southern California, eastern Kern County, and the Salton Sea, nesting in fresh emergent wetland bordering open water. San Diego County represents the southern extent of the redhead's breeding range along the Pacific coast of North America. Redhead nests are built typically within dense marshes over shallow water, and this species prefers to forage in shallow water for submerged aquatic plants (Unitt et al. 2004).

Redheads were observed in the project area during the 2016 biological surveys. While this species was not observed during the 2022 biological surveys, wintering populations of redheads are documented in large numbers in Mission Bay (Unitt et al. 2004). Although the marsh vegetation in the project area may not be dense enough for nesting, and this species is not documented nesting in this part of the County, suitable foraging habitat occurs along the edges of the central and eastern portions of the project area where the open water habitats are shallower.

5.4.4.24 Rufous Hummingbird (*Selasphorus rufus*), BCC

Rufous hummingbird, a bird of conservation concern, is a small hummingbird with a slender, straight bill, tapered tail, and short wings. Adult males are bright orange on the back and belly with an iridescent red throat. Rufous hummingbirds inhabit areas with nectar-producing flowers, including lowlands and foothills during northward and southward migration. This species migrates between the Pacific Northwest and Mexico, passing through San Diego County in the spring and late summer (Unitt et al. 2004). The rufous hummingbird is found in habitats that provide cover, including lowland riparian, open woodlands, scrub, and chaparral. This species feeds primarily on nectar from colorful, tubular flowers but is known to eat tiny insects that occur on plants as well.

Rufous hummingbird was observed in the project area during the 2016 biological surveys. This species was not observed during the 2022 biological surveys, and limited suitable habitat occurs

in the project area. In the project area, flowering plants are limited to the coastal scrub in the northwestern portion of the KFMR/NWP and in the ornamental vegetation in the developed areas of Campland, De Anza Cove, and the MBTAG.

5.4.4.25 Southern California Legless Lizard (*Anniella stebbinsi*), SSC

Southern California legless lizard, a CDFW species of special concern, is a small, slender lizard with a shovel-shaped snout, smooth, shiny scales, a blunt tail, and no legs. Southern California legless lizard occurs in the sandy soils of coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans. This species prefers habitats in coastal dune, valley foothill, chaparral, and coastal scrub types where its preferred prey of larval insects, beetles, termites, and spiders are present (CaliforniaHerps 2023). Southern California legless lizard conceals itself under rocks and leaf litter in loose soil.

Southern California legless lizard was observed in the project area during the 2016 biological surveys. This species was not observed during the 2022 biological surveys, and limited suitable sandy habitat occurs in the small area of southern foredunes in the southern portion of the KFMR/NWP in the western project area.

5.4.4.26 Wandering Skipper (*Panoquina errans*), MSCP SAP Covered

The wandering skipper butterfly, a MSCP SAP covered species, is a small, olive brown butterfly with a row of small, clear spots on the forewings and no markings on the hindwings. The wandering skipper occurs along the coast from Santa Barbara to Baja California Sur, Mexico. This species occurs in coastal lagoons and coastal marshes within San Diego County (Faulkner and Klein 2023). Wandering skipper's larval host plant is saltgrass and common nectar sources include frankenia, Cakile, or Heliotropium (Greer 2014).

A total of two wandering skippers were observed in the KFMR/NWP in 2010 (Greer 2014). However, this species was not observed during the 2016, 2018, or 2022 biological surveys. While the wandering skipper's larval host plant, saltgrass, occurs in the marsh habitat of the KFMR/NWP in the western project area, this suitable habitat is limited and isolated from other large expanses of saltgrass.

ASMDs under the MSCP SAP for wandering skipper in the project area include measure to control exotic weeds and invertebrate predators (where appropriate) and control access to saltmarsh habitat (City of San Diego 1997). See Table 4 for ASMD consistency analysis.

5.4.4.27 White-Tailed Kite (*Elanus leucurus*), FP

White-tailed kite, a CDFW fully protected species, is a small to medium-sized raptor with narrow, pointed wings, long tail, and a large head. Adults are pale, with an entirely white tail, black shoulder patches, white head, and red eyes. White-tailed kite occurs mainly in lowlands of southern

and northwestern cismontane California in savannah, open woodland, marshes, cultivated fields, and partially cleared lands. White-tailed kite hunts in the morning and late afternoon for voles and mice, often near farms or other grasslands. This species is nonmigratory but can be nomadic and dispersive in its movements, and often occurs in communal roosts (Unitt et al. 2004). Nests are made of piled sticks and twigs and placed near the tops of oak, willow, or other trees near marshes and foraging areas.

White-tailed kite was observed in the project area during the 2016 biological surveys. Although this species was not observed during the 2022 biological surveys, suitable foraging habitat occurs in the KFMR/NWP, and the ornamental trees of Campland, De Anza Cove, and the MBTAG could provide suitable nesting habitat.

5.4.5 Sensitive Wildlife Species Not Observed With a High Potential to Occur

Based on the literature and database review, 15 sensitive wildlife species were considered for their potential to occur in the project area but were not observed during the biological resources surveys (Table 7). Two sensitive wildlife species, including northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*) and Mexican long-tongued bat (*Choeronycteris mexicana*), were determined to have a high potential to occur in the project area but were not observed during the biological resource surveys. These two species are not covered by the MSCP SAP. These sensitive wildlife species with high potential to occur are described in the following subsections.

5.4.5.1 Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*), SSC

Northwestern San Diego pocket mouse, a CDFW species of special concern, is a moderate-sized pocket mouse with a long, bicolored tail, dark brown underparts, predominant white spines on the flanks, and a warm buff lateral line. This species prefers rocky habitat near shrubs but can be found in a variety of habitat types, including grassland and sage scrub. Shrubs provide forage and essential escape cover from predators. Soil preference ranges from loose and sandy soils to gravel to mixed rock on moderate to steep slopes. This species forages mainly on seeds, preferring chia and grass seeds, but is known to eat some leaves and stems (SDNHM 2017).

High-quality habitat in the Diegan coastal sage scrub with loose soils occurs along western edge of the KFMR and has the potential to support northwestern San Diego pocket mouse. This species has been documented within 1 mile of the project area (Figure 12) (CDFW 2023b).

5.4.5.2 Mexican Long-Tongued Bat (*Choeronycteris mexicana*), SSC

Mexican long-tongued bat, a CDFW species of special concern, is a medium-sized bat with big eyes, a short tail, and a long rostrum with a nose leaf. Adults are gray-brown above and lighter below. Mexican long-tongued bat roosts in caves, mines, rock crevices, under exposed tree roots,

and in buildings in the County during migration (some may overwinter) (SDNHM 2017). This species forages on nectar.

The project area contains an abundance of ornamental plants, primarily in and surrounding Campland, that provide suitable Mexican long-tongued bat foraging habitat during migration and winter months. Suitable roosting habitat for Mexican long-tongued bat is available in the abandoned structures and mobile homes in De Anza Cove. This species has been documented within 1 mile of project area (Figure 12) (CDFW 2023).

5.4.6 Nesting Birds

The project area contains suitable nesting habitat for several bird and raptor species protected under the CFGC and MBTA. The highest quality habitat for nesting birds in the project area is the KFMR/NWP southern coastal salt marsh in the western portion of the project area and innumerable native and ornamental trees within and along the edges of the developed land of Campland, De Anza Cove, and the MBTAG in the central and eastern portions of the project area. Suitable nesting habitat also occurs in the coastal scrub in the western portion of the KFMR/NWP, as well as the abandoned mobile homes and associated structures in the De Anza Cove area. The lighting structures in the MBTAG could also support nesting osprey, which are documented to build their nests on human-made structures, including racks of floodlights for ballfields (Unitt et al. 2004). At least one osprey pair is known to nest within the Mission Bay Athletic Fields stadium lights. While no birds or raptors were observed nesting in the project area during the biological resource surveys, the availability of suitable nesting habitat and nearby foraging habitat indicates birds likely use the project area for nesting.

As previously discussed in Section 3, Regulatory Framework, both the project and the Wetlands Optimized Alternative would be required to be in compliance with all federal, state, and local regulations applicable to biological resources as a condition of approval, including the CFGC and MBTA.

5.4.7 Roosting Bats

The project area contains suitable roosting and foraging habitat for both common and sensitive bat species. The numerous ornamental trees within and along the edges of the developed land of Campland, De Anza Cove, and the MBTAG in the central and eastern portions of the project area could provide suitable roosting habitat for tree-roosting bats, such as the hoary bat (*Lasiurus cinereus*), western red bat (*Lasiurus blossevillii*), and western yellow bat (*Lasiurus xanthinus*). Western red bat and western yellow bat are both CDFW species of special concern. As previously discussed in Section 5.4.5, the ornamental plants, primarily within and surrounding Campland, provide suitable foraging habitat for Mexican long-tongued bat (CDFW species of special concern) during migration and winter months. Further, the abandoned structures and mobile homes within De Anza Cove provide suitable roosting habitat for Mexican long-tongued bat and other structure-

dwelling bats. During the October 2022 Harris survey, bat guano (feces) was observed in the abandoned mobile homes. The open water and tidal channel also provide suitable foraging habitat for bats roosting in the area that forage over sources of open water, including pallid bat (*Antrozous pallidus*) and western small-footed myotis (*Myotis ciliolabrum*), which are both CDFW species of special concern. While no bats were observed using the project area for roosting or foraging during the biological resource surveys, no nighttime focused acoustic surveys were conducted and the availability of suitable habitat indicates bats are likely roosting and foraging in the project area.

5.4.8 Wildlife Corridors and Habitat Linkages

Wildlife corridors provide routes for local movement and also regional linkages and corridors, often following linear topographical, vegetation, or water features. These corridors can be continuous habitats features, or “steppingstone” areas, providing critical rest and foraging areas for, for example, birds traveling along migratory routes. Local routes of movement provide constant connections to resources that include sources of water, home/cover sites, and foraging areas. Regional linkages and movement corridors provide larger patches of open space to allow relatively free movement of wildlife species along multiple paths between important resources. These areas allow for not only long-term genetic flow between subpopulations but also critical pathways of seasonal/migratory movements. Larger predatory mammals often use regional corridors for hunting and reproduction needs. Potential wildlife corridors can include streams, riparian areas, and culverts under roadways. Habitat characteristics considered included topography, habitat quality, and adjacent land uses.

The MSCP SAP defines core and linkage areas as those maintaining ecosystem function and processes, including large animal movement. Each core area is connected to other core areas or to habitat areas outside 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.

Before the field survey, the MSCP SAP was reviewed to confirm the presence of designated habitat linkages and dispersal corridors in the project area. During the biological surveys, biologists assessed areas identified in the MSCP SAP in the project area for potential wildlife corridor functions. The project area intersects one core and linkage area, Biological Core and Linkage Area 46, identified within the MSCP SAP. The biological core and linkage area is in the western portion of the project area and is partially in the KFMR/NWP and Campland areas. This core and linkage area borders Mission Bay, which functions as a wildlife movement corridor for resident and migratory birds, marine mammals, and fish species both locally and regionally.

The project area is likely to be used as a wildlife movement corridor and provides suitable nesting, foraging, and dispersal areas for both sensitive and common wildlife species because of the presence of native vegetation communities (among the last remaining marshland in this part of the City), its connection to Mission Bay and proximity to the Pacific coast and open waters to the west. However, use of the project as major routes of movement is likely restricted for large mammals

(i.e., mule deer and mountain lion), and is then limited to bird species, mesocarnivores (i.e., coyotes), and other smaller mammals.

The project area also holds value for migrating birds flying through to wintering grounds that are protected by the MBTA. Further, the project area supports a variety of vegetation communities, ranging from coastal scrub, dunes, aquatic areas (including open water, eelgrass beds, and tidal channels), salt marsh, and salt panne/mudflat. The aquatic, marsh, and mudflat communities in the project area in particular are high-quality, contiguous sections of these habitats that have become rare in the region due to development. The dense residential and commercial development immediately surrounding the project area has the potential to limit wildlife movement through the project area. However, the open space within the western portion and immediately to the south of the project area has been designated as important habitat connectivity areas by the MSCP SAP and is documented as supporting a wide variety of both local and migratory species (Figure 2).

Section 6 Impacts Analysis

6.1 Significance Thresholds and Definition of Impacts

Based on the CEQA Environmental Checklist (Appendix G of the CEQA Guidelines), direct or primary effects are those that are caused by a project and occur at the same time and place; indirect or secondary effects are those that are reasonably foreseeable and caused by a project but occur at a different time or place; and cumulative effects refers to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts.

The following thresholds are used in this document and are adapted from Appendix G of the CEQA Guidelines and the City's adopted Thresholds of Significance (City of San Diego 2022). Would the proposal result in:

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 SAP or other local or regional plans, policies or regulations, or by the California Department of Fish and Game (CDFG) or U.S. Fish and Wildlife Service (USFWS)?
2. 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 CDFG or USFWS?
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?
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?
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?
6. Introducing land use within an area adjacent to the MHPA that would result in adverse edge effects?
7. A conflict with any local policies or ordinances protecting biological resources?
8. An introduction of invasive species of plants into a natural open space area?

6.1.1 Direct Impacts

A direct impact is a physical change in the environment, which is caused by and immediately related to the project. Construction and restoration activities associated with implementation of the project could result in direct impacts to biological resources including but not limited to the following:

- Direct removal of vegetation and/or land cover during construction activities by means of excavation, demolition, grading, vegetation clearing/grubbing/crushing
- Placement of fill/sediment within jurisdictional aquatic resources, including Mission Bay
- Dredging and/or hydrologic restoration activities in jurisdictional resources and encroachment into wetland buffers
- Human incursion into sensitive habitats
- Mortality of sensitive wildlife species from vehicular collision
- Destruction or abandonment of nests

Lands containing Tier I, II, IIIA, and IIIB (Table 3 from the SDBG) and all wetlands (Tables 2A and 2B from the SDBG) are considered sensitive and declining habitats (Table 12, Significance of Potential Impacts to Vegetation Communities and Jurisdictional Resources). As such, impacts to these resources would be significant, with two exceptions (City of San Diego 2018a):

- a. If the total proposed project upland impacts affect less than 0.1 acre, then they would not be considered significant and would not require mitigation.
- b. Any proposed project impacts to non-native grasslands totaling less than 1.0 acre that are completely surrounded by urban development would not be considered significant and would not require mitigation.

Lands designated as Tier IV (e.g., developed land) are not considered to have significant habitat value, and any proposed impacts to these communities would not be considered significant.

Since the project area is entirely within the COZ, any impacts to wetlands as part of the proposed project would be significant.

Table 12. Significance of Potential Impacts to Vegetation Communities and Jurisdictional Resources

Resource Type	Impact Threshold	Significance of Impact
Native Uplands (Tier I, II, IIIA, or IIIB)	Less than 0.1 acre	Not significant
	0.1 acre or greater	Significant, requires mitigation
Non-Native Grassland (Tier IIIB)	Less than 1 acre in an urban setting	Not significant
	1 acre or greater in an urban setting	Significant, requires mitigation
Disturbed and Developed Land (Tier IV)	Any impacts	Not significant
Jurisdictional Waters	Any impacts within the COZ	Significant, requires mitigation
Wetlands	Any impact within the COZ	Significant, requires mitigation

Source: City of San Diego 2012b.

Notes: COZ = Coastal Overlay Zone

Impacts to individual sensitive plants species, aside from impacts to sensitive habitat, may also be considered significant based upon the rarity and extent of impacts. In general, conformance with the MSCP SAP provides incidental take coverage for covered species (both plants and wildlife) such that impacts to those species ~~outside the City’s MHPA~~ would not be considered significant ~~(due to conservation of the species provided by MSCP SAP implementation)~~. Exceptions to this would be impacts that occur to narrow endemic covered species, non-covered species that are state- or federally listed species and/or have a CRPR of 1B.1, 1B.2, or 2B.2, or covered species that are within the MHPA (City of San Diego 2018a). It is assumed that if avoidance or minimization of impact is not feasible, any direct impacts to sensitive plant species that do not have incidental take coverage through the MSCP SAP could be mitigated through either the habitat restoration of the marshland in KFMR/NWP or through on-site preservation of species in the restored marshland habitat that is within the MHPA boundary. Further, implementation of ASMDs for certain species covered under the MSCP SAP would be required as conditions of future site-specific project approval. Impacts to plant species ranked CRPR 3 and 4 would not be considered significant since any populations identified on site would not represent a significant percentage of the population in terms of the ability for the species to persist (i.e., CRPR 4 species are not considered “rare” from a statewide perspective) (Table 13, Significance of Potential Impacts to Sensitive Plant Species).

Table 13. Significance of Potential Impacts to Sensitive Plant Species

Species Rarity	Location of Species	Significance of Impact
MSCP SAP Covered Species	Any	Significant, requires mitigation
MSCP SAP Narrow Endemic	Any	Significant, requires mitigation
Federally or State Listed	Any	Significant, requires mitigation
CRPR 1B.1, 1B.2, and 2B.2	Any	Significant, requires mitigation
CRPR 3 and 4	Any	Not significant

Notes: CRPR = California Rare Plant Rank; MSCP = Multiple Species Conservation Program; SAP = City of San Diego Multiple Species Conservation Program Subarea Plan

The City’s permit to “take” covered species under the MSCP SAP is based on the concept that approximately 90 percent of lands within the MHPA will be preserved. The only activities within the MHPA proposed as part of the project would be limited to restoration and enhancement activities associated with establishing marshland habitat in the previous soil disposal site in the KFMR/NWP and the treatment of invasive species in the City-owned sections of the preserve; these activities are allowed within the MHPA. Therefore, no MHPA boundary line adjustments are anticipated. However, the City may process a Boundary Line Adjustment to propose inclusion of natural habitat restoration areas to be added to the MHPA as part of a future implementation action.

Restoration and enhancement activities conducted in both the KFMR/NWP and the existing Campland site would be consistent with the requirements in the City’s MSCP SAP, the SDBG, and ESL regulations for conducting such activities in wetlands and wetland buffers located in both the MHPA and COZ. Further, consistent with the MSCP SAP, the project would implement the

ASMDs for species covered under the MSCP SAP that occur or have a high potential to occur in the project area, as applicable. The project would also result in long-term direct benefits to wetland habitat and wildlife species that use these areas within and adjacent to the MHPA and COZ through the restoration and expansion of marshland in the KFMR/NWP and in previously developed land on the existing Campland site. In addition, these restoration and enhancement activities were envisioned as part of the project, in accordance with the MBPMP. As demonstrated in Tables 4 and 5 (Sections 3.3.2 and 3.3.3) the project would be consistent with the City's MSCP SAP, specifically Sections 1.5.1 and 1.5.2 of the MSCP SAP regarding preservation and restoration of viable sensitive biological resources, including wildlife habitat.

6.1.2 Indirect Impacts

Indirect impacts are reasonably foreseeable effects caused by project implementation on remaining or adjacent biological resources outside a direct impact area, such as downstream and adverse edge effects. Indirect impacts include short-term effects immediately related to construction/installation activities and long-term or chronic effects occurring after construction. Indirect impacts that would result in loss of area or function of wetlands, Tier I–III upland vegetation habitats, or sensitive species may be considered significant.

Additional potential short-term indirect impacts to biological resources that could occur from the proposed project are related to overall project construction activities and may include dust, construction-related noise, hydroacoustic effects, siltation, general human presence, changes within Mission Bay and Rose Creek that affect forage and nesting, and construction-related soil erosion and runoff. Potential long-term indirect impacts to biological resources may also occur as a result of the project through adverse edge effects, including introduction of non-native species and increased human presence during and following construction. Since the project would be within and adjacent to the MHPA and could result in potential indirect impacts to the KFMR/NWP, it would be required to demonstrate consistency with the MSCP SAP Section 1.4.3, Land Use Adjacency Guidelines. The project's consistency with the MHPA LUAGs is demonstrated in Table 6 (Section 3.3.4). The project would also result in long-term indirect benefits to wetland habitat and wildlife species that use these areas within and adjacent to the MHPA and COZ through the restoration and expansion of marshland on the KFMR/NWP and on previously developed land on the existing Campland site. For typical development in the COZ, the City requires a 100-foot-wide avoidance buffer surrounding wetland resources to reduce indirect impacts and ensure the value and function of the wetland is maintained.

In accordance with the MSCP SAP and pursuant to the San Diego RWQCB Municipal Permit and the City's Stormwater Standards Manual (City of San Diego 2012a), projects are required to implement site design, source control, and treatment control BMPs to reduce potential indirect impacts to sensitive biological resources. The project's consistency with the MSCP SAP General Management Directives, species-specific ASMDs, and General Planning Policies and Design

Guidelines is demonstrated in Tables 4 and 5 (Sections 3.3.2 and 3.3.3). Development projects are required to meet National Pollutant Discharge Elimination System (NPDES) regulations and incorporate BMPs during construction and permanent BMPs as defined by the City’s Stormwater Standards Manual as part of project development.

6.1.3 Proposed Project and Alternative Analysis

As discussed in Section 2.3, Wetlands Optimized Alternative Description, in addition to analysis of the project, the Wetlands Optimized Alternative is analyzed in this report at the same level of detail as the project.

As previously discussed in Section 3, the project and the Wetlands Optimized Alternative would be required to be in compliance with all federal, state, and local regulations applicable to biological resources as a condition of approval.

6.2 Threshold 1: Sensitive Plant and Wildlife Species

6.2.1 Guidelines for Determination of Significance

Significant impacts could result if the project would 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 SAP or other local or regional plans, policies, or regulations or by the California CDFW or USFWS.

6.2.2 Impact Analysis

6.2.2.1 Proposed Project

Sensitive Plant Species

Direct Impacts

Four sensitive plant species were observed within the project area during biological surveys: California seablite, Palmer’s frankenia, San Diego marsh-elder, and southwestern spiny rush. Two additional sensitive plant species, estuary seablite and Nuttall’s acmispon, were determined to have a high potential to occur in the project area. These sensitive plant species observed or with a high potential to occur in the project area are not designated as narrow endemic or covered under the MSCP SAP.

Observations of, and potentially suitable habitat for, San Diego marsh-elder, southwestern spiny rush, and Nuttall’s acmispon are outside the project’s potential impact area within the KFMR/NWP (Figure 13, Impacts to Biological Resources – Proposed Project). Therefore, no impacts to these sensitive plant species are expected to occur from implementation of the project.

There is potential for California seablite, Palmer's frankenia, and estuary seablite to occur in the project construction, enhancement, and hydrologic restoration areas that include these species' suitable habitat the KFMR/NWP. In the event these sensitive plant species are identified within the potential impact area, direct impacts are considered potentially significant without mitigation.

An analysis of the exact acreage of impacts that would occur to these sensitive plant species in the project area as a result of the project is not provided at the programmatic level because such analysis would be speculative in nature since future site-specific projects are not known at this time. As future site-specific projects come forward, project-specific analysis would be conducted in the review phase of the project, and any impacts to sensitive plant species would be avoided, minimized, or mitigated as conditions of project approval prior to the implementation of the future site-specific projects.

Indirect Impacts

Temporary indirect impacts to sensitive plant species could result during construction of the project, and may include dust, which could disrupt plant vitality in the short term, or construction-related soil erosion and runoff. Permanent edge effects could result during operation of the project and may include intrusions by humans and domestic pets and therefore possible trampling of individual plants, invasion by exotic plant and wildlife species, exposure to urban pollutants (fertilizers, pesticides, herbicides, and other hazardous materials), soil erosion, litter, fire, and hydrologic changes (e.g., surface and groundwater level and quality). As previously discussed in Section 6.2.2, Impact Analysis, the project would be required to be in compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations, through implementation of site design, source control, and incorporation of construction and permanent BMPs. The project's consistency with the MSCP SAP General Management Directives, species-specific ASMDs, and General Planning Policies and Design Guidelines is demonstrated in Tables 4 and 5 (Sections 3.3.2 and 3.3.3). In addition, because the project is within and adjacent to the MHPA and could result in potential indirect impacts to the preserve, it would be required to demonstrate consistency with the MSCP SAP Section 1.4.3, LUAGs. The project's consistency with the MHPA LUAGs is demonstrated in Table 6 (Section 3.3.4). Consistency with the MHPA LUAGs ensures minimization of adverse edge effects from implementation of the project. Therefore, indirect impacts to sensitive plants during construction activities and operation of the project are less than significant, and no mitigation is required.

Sensitive Wildlife Species

Direct Impacts

The 27 sensitive wildlife species that were observed in the project area during surveys or were determined to have a high potential to occur in the project area are described in Sections 5.4.4, Sensitive Wildlife Species Observed, and 5.4.5, Sensitive Wildlife Species Not Observed With a

High Potential to Occur (Figure 11 and Figure 12). The project has the potential to directly impact these species during construction activities and operation of the project through displacement of individual wildlife or elimination of portions of their habitat (Figure 13). In addition, some of the smaller species, such as reptiles and rodents, could be ~~killed or injured~~ impacted by clearing, grading, and other construction activities. Implementation of the project would result in both permanent and temporary direct loss of habitat, including nesting, roosting, and foraging habitat, for the majority of the sensitive wildlife species observed or with a high potential to occur in the project area described in Sections 5.4.4 and 5.4.5. These sensitive wildlife species observed or with a high potential to occur include the following: American peregrine falcon, Belding's savannah sparrow, black skimmer, black tern, brant, California brown pelican, California gull, California horned lark, California least tern, Caspian tern, Clark's marsh wren, common loon, Cooper's hawk, Costa's hummingbird, double-crested cormorant, elegant tern, light-footed Ridgway's rail, long-billed curlew, monarch butterfly, northern harrier, osprey, reddish egret, redhead, rufous hummingbird, Southern California legless lizard, wandering skipper, and white-tailed kite. Of the 27 sensitive wildlife species observed in the project area during surveys conducted in 2016 and 2018, the presence of six species, Belding's savannah sparrow, California brown pelican, California gull, osprey, double-crested cormorant, and monarch butterfly, were confirmed present during the 2022 biological surveys. In addition, two sensitive wildlife species, Mexican long-tongued bat and northwestern San Diego pocket mouse, were not observed but determined to have a high potential to occur in the project area.

Of these 27 sensitive wildlife species observed or determined to have a high potential to occur, nine are covered by the MSCP SAP. These species include American peregrine falcon, Belding's savannah sparrow, California brown pelican, California least tern, Cooper's hawk, light-footed Ridgway's rail, northern harrier, reddish egret, and wandering skipper butterfly. As described in Section 5.4.4, Sensitive Wildlife Species Observed, the MSCP SAP requires ASMDs for six of the nine sensitive wildlife species covered under the plan, including Belding's savannah sparrow, California least tern, Cooper's hawk, light-footed Ridgway's rail, northern harrier, and wandering skipper butterfly. ASMDs are not required for American peregrine falcon, California brown pelican, or reddish egret (City of San Diego 1997). As previously discussed under Section 6.1.1, Direct Impacts, conformance with the MSCP SAP provides incidental take coverage for covered species such that impacts to those species outside the City's MHPA would not be considered significant (due to conservation of the species provided by MSCP SAP implementation, which considers future site-specific project conditions). Further, implementation of ASMDs for applicable MSCP SAP covered sensitive wildlife species that occur in the project area would be required as a condition of project approval in future site development permits, which would preclude impacts to the species at a project level. The project's consistency with the MSCP SAP General Management Directives, species-specific ASMDs, and General Planning Policies and Design Guidelines is demonstrated in Tables 4 and 5 (Sections 3.3.2 and 3.3.3). Therefore, with conformance with the MSCP SAP and the species-specific ASMDs as

applicable, direct impacts to these nine sensitive wildlife species would be less than significant, and no mitigation is required.

Similarly, white-tailed kite is a CDFW fully protected species, and CESA does not allow take of fully protected species. As a condition of future site-specific project approval, the project would be required to avoid impacts to this species consistent with CESA. Therefore, with conformance with CESA, direct impacts to white-tailed kite would be less than significant, and no mitigation is required.

Potential direct impacts to the 17 sensitive wildlife species observed or determined to have a high potential to occur that are not covered by the MSCP SAP or fully protected under CESA are discussed below. An analysis of the exact acreage of impacts that would occur to these sensitive wildlife species in the project area as a result of the project is not provided at the programmatic level because such analysis would be speculative in nature since future site-specific projects are not known at this time. As future site-specific projects come forward, project-specific analysis would be conducted in the review phase of the project, and any impacts to these sensitive wildlife species would be avoided, minimized, or mitigated as conditions of project approval prior to the implementation of the future site-specific projects.

Approximately 219.49 acres of aquatic and wetland vegetation communities and land cover types occur in the project area (Table 9a) and provide suitable nesting and foraging habitat for sensitive bird and raptor species (not covered by the MSCP SAP) observed using these habitats in the project area. These observed species include redhead, brant, Costa's hummingbird, black tern, common loon, Caspian tern, California gull, long-billed curlew, double-crested cormorant, black skimmer, rufous hummingbird, and elegant tern.

The 0.02 acre of disturbed wetland (*Arundo*) and 0.38 acre of disturbed freshwater marsh that occur along Rose Creek and within the MBTAG in the central and northeastern portions of the project area, respectively, may be limited or low quality, but these communities provide some suitable foraging habitat for sensitive bird species due to their proximity to the ornamental trees within Campland and the MBTAG that may provide suitable nesting habitat for these species. Further, common species of waterfowl, including mallard ducks (*Anas platyrhynchos*) and greater white-fronted geese (*Anser albifrons*), were observed congregating around the artificial water features of the MBTAG adjacent to the disturbed wetland (*Arundo*) and disturbed freshwater marsh, indicating the potential use of these areas as foraging habitat by sensitive waterfowl observed in the project area as well, including redhead. Direct impacts to disturbed wetland (*Arundo*) and disturbed freshwater marsh could result in direct impacts to these sensitive birds in the form of permanent and temporary habitat loss. Potential impacts to these sensitive wildlife species would be potentially significant without mitigation.

The 45.64 acres of southern coastal salt marsh and 35.84 acres of salt panne/mudflat that occur within the KFMR/NWP and Mission Bay in the western portion of the project area provide suitable

nesting and foraging habitat for sensitive wildlife species observed in the project area. Specifically, the marsh and mudflats that occur in the western portion of the project area provide suitable foraging habitat for sensitive long-billed curlew. Direct impacts to southern coastal salt marsh and salt panne/mudflat could result in direct impacts to sensitive wildlife species in the form of permanent and temporary habitat loss. Potential impacts to sensitive wildlife species would be potentially significant without mitigation.

Approximately 107.12 acres of open water and 2.57 acres of tidal channel occur in the project area and provides suitable foraging habitat for many of the sensitive wildlife species observed in the project area. These species include redhead, brant, black tern, Caspian tern, California gull, double-crested cormorant, black skimmer, and elegant tern. Specifically, the approximately 83.74 acres of eelgrass beds that occurs as the substrate of much of the open water of the project area provides suitable foraging habitat for sensitive redhead, brant, and double-crested cormorant observed in the project area. Direct impacts to open water, tidal channel, and eelgrass beds could result in direct impacts to these sensitive birds in the form of permanent and temporary habitat loss. Potential impacts to these sensitive wildlife species would be potentially significant without mitigation.

Although the vegetated upland habitats, including 1.35 acres of southern foredunes, 2.38 acres of Diegan coastal sage scrub, and 0.04 acre of non-native grassland, in the project area are limited to the northwestern and western edges, these communities provide suitable foraging habitat for sensitive wildlife species observed or with a high potential to occur in the project area. The sensitive wildlife species potentially supported by these upland communities include Costa's hummingbird, rufous hummingbird, and potentially occurring Blainville's horned lizard and northwestern San Diego pocket mouse. In addition, the southern foredunes provide limited suitable habitat for Southern California legless lizard. Direct impacts to southern foredunes, Diegan coastal sage scrub, and non-native grassland could result in direct impacts to these sensitive wildlife species in the form of permanent and temporary habitat loss. Potential impacts to these sensitive wildlife species would be potentially significant without mitigation.

The 3.40 acres of disturbed habitat and 222.71 acres of developed land throughout the project area provides little to no suitable habitat value for the sensitive species observed or with a high potential to occur in the project area. However, a large number of ornamental trees are present within and along the edges of the developed land of Campland, De Anza Cove, and the MBTAG that could provide suitable nesting habitat for birds, including Costa's hummingbird and rufous hummingbird. As described in Section 2.2, Project Description, the majority of the land uses currently in the MBTAG would remain in place, and no impacts would result to the potential nesting and foraging habitat provided within that area. As discussed in Section 3, the project is required to comply with all federal, state, and local regulations applicable to biological resources as a condition of approval, including the CFGC and MBTA which protect sensitive nesting birds. Implementation is ensured through conditions of subsequent project-level approval. Due to known presence of federal and state

endangered avian species, potential direct impacts to these sensitive wildlife species would be potentially significant without mitigation.

The abandoned structures and mobile homes within De Anza Cove provide suitable bat roosting habitat, specifically for Mexican long-tongued bat which was determined to have a high potential to occur in the project area. Direct impacts to the developed land in the project area, particularly the structures that provide potential bat roosting habitat in Campland and De Anza Cove, could result in direct impacts to roosting bats, specifically Mexican long-tongued bat, in the form of permanent and temporary habitat loss. Potential direct impacts to these sensitive wildlife species would be potentially significant without mitigation.

Adult monarch butterflies were observed flying through the project area during the 2022 surveys. However, no milkweed patches, the monarch caterpillar host plant, were observed on the project area. Pine and eucalyptus trees that are present in and along the edges of the developed land of Campland, De Anza Cove, and the MBTAG provide potentially suitable overwintering habitat for monarch butterfly. Direct impacts to the mature trees in the developed land of the project area, including Campland, De Anza Cove, and the MBTAG, could result in direct impacts to monarch butterfly in the form of permanent and temporary overwintering habitat loss. Potential impacts to this sensitive species would be potentially significant without mitigation.

Indirect Impacts

Temporary construction-related and long-term operational indirect impacts to wildlife generally include lighting, increased human activity, hydrologic quality (increased turbidity, excessive sedimentation, flow interruptions, and changes in water temperature), noise, vibration, and trash and garbage, which can attract both introduced terrestrial and native terrestrial and avian predators (such as American crows [*Corvus brachyrhynchos*], common ravens [*Corvus corax*], coyotes [*Canis latrans*], domestic dogs [*Canis familiaris*], raccoons [*Procyon lotor*], and striped skunks [*Mephitis mephitis*]). These indirect impacts in the form of habitat disturbance and potential predation could have a significant impact on the sensitive wildlife species observed or determined to have a high potential to occur in the project area, identified in Sections 5.4.4 and 5.4.5. As previously discussed in Section 6.2.2, Impact Analysis, the project and subsequent project approvals would be required to be in compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations, through implementation of site design, source control, and incorporation of construction and permanent BMPs. The project's consistency with the MSCP SAP General Management Directives, species-specific ASMDs, and General Planning Policies and Design Guidelines is demonstrated in Tables 4 and 5 (Sections 3.3.2 and 3.3.3). In addition, because the project and subsequent project approvals would be within and adjacent to the MHPA and could result in potential indirect impacts to the preserve, the project and subsequent project approvals would be required to demonstrate consistency with the MSCP SAP Section 1.4.3, LUAGs. The

project’s consistency with the MHPA LUAGs is demonstrated in Table 6 (Section 3.3.4). Consistency with the MHPA LUAGs ensures minimization of adverse edge effects from implementation of the project. Therefore, indirect impacts to sensitive wildlife during construction activities and operation of the project would be less than significant, and no mitigation is required.

Project construction activities within the waters of Mission Bay could result in the generation of sound exposure levels (SELs) high enough to cause hydroacoustic effects on these marine species, including marine fish, marine mammals, and green sea turtles, with potential to occur in the project area (Merkel & Associates 2017). Table 14, Summary of Potentially Significant In-Water Sound Exposure Level Indirect Impacts, provides the estimated hydroacoustic impact thresholds for marine species with potential to occur in the project area.

Table 14. Summary of Potentially Significant In-Water Sound Exposure Level Indirect Impacts

Impact Threshold Type	SEL Impact Threshold for Marine Fish (dB) ¹	SEL Impact Threshold for Marine Mammals (dB _{rms}) ¹	SEL Impact Threshold for Green Turtles (dB _{rms}) ¹
Peak	206	—	—
Accumulated ²	187	—	—
Impact	—	160	166
Vibratory	—	120	166

Notes: dB = decibels; dB_{rms} = decibel root mean square; SEL = sound exposure level

¹ Source: Merkel & Associates 2017.

² Accumulated SEL is derived from the number of pile strikes ($SEL_{cumulative} = SEL + 10 \cdot \log[\#strikes]$) as such, the starting SEL would dictate the number of pile strikes possible prior to exceeding the threshold of 187dB SEL_{cumulative}

The potential indirect impacts to sensitive marine wildlife species from the exposure of high sound and vibration levels are considered potentially significant without mitigation.

Nesting Birds

As previously discussed, the project area provides suitable nesting habitat for sensitive birds and raptors protected under the CFGC and MBTA. Although no active nests or nesting behavior were observed during any of the biological surveys, focused nest surveys were not conducted due to the programmatic nature of the project.

As previously discussed under Direct Impacts, the project would be required to implement regulations protecting sensitive nesting birds and raptors, including the CFGC and MBTA. Implementation is ensured through conditions of subsequent project-level approval. Due to known presence of federal and state endangered avian species, potential direct impacts to these sensitive wildlife species are considered potentially significant without mitigation.

Roosting Bats

As previously discussed, suitable roosting habitat for sensitive bat species, including Mexican long-tongued bat, hoary bat, western red bat, and western yellow bat, occurs in the structures and ornamental trees within the developed land of Campland, De Anza Cove, and the MBTAG in the central and eastern portions of the project area. Although roosting bats were not observed during the biological surveys, no focused nighttime mist-netting or acoustic surveys were conducted and the availability of suitable roosting with nearby foraging habitat suggest roosting is likely occurring in the project area. As described in Section 2.2, the majority of the land uses currently in the MBTAG would remain in place, and no impacts would result to the potential roosting habitat provided by the trees that area. Direct impacts to the developed land in the project area, particularly removal of the structures and ornamental trees in Campland and De Anza Cove, could result in direct impacts to sensitive bats in the form of permanent and temporary roosting habitat loss. Potential impacts to sensitive roosting bat species during construction and tree removal are considered potentially significant without mitigation.

6.2.2.2 Wetlands Optimized Alternative

Sensitive Plant Species

Direct Impacts

As previously discussed in Section 2.3, the Wetlands Optimized Alternative differs from the project in creating an additional 32.1 acres of wetlands and associated transitional zones and uplands (low-mid-high wetland/salt marsh and mudflats) by converting the southern portion of the developed De Anza “boot” and the De Anza Bay open waters to wetlands.

The Wetlands Optimized Alternative proposes the same construction, enhancement, and hydrologic restoration in the KFMR/NWP as the project. Potential direct impacts to sensitive plant species observed or with a high potential to occur in the suitable habitat in the KFMR/NWP, including California seablite, Palmer’s frankenia, and estuary seablite, would occur under the Wetlands Optimized Alternative (Figure 14, Impacts to Biological Resources – Wetlands Optimized Alternative). Therefore, potential impacts to sensitive plant species would be potentially significant without mitigation.

Indirect Impacts

Construction activities and operation of the Wetlands Optimized Alternative would be largely the same compared to the project; therefore, the same potential indirect impacts to sensitive plant species are expected to occur. The Wetlands Optimized Alternative, like the project, would be required to be in compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City’s Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations, through implementation of site design, source control, and incorporation of construction and permanent BMPs. The project’s consistency with the MSCP SAP General Management Directives, species-specific ASMDs, and

General Planning Policies and Design Guidelines is demonstrated in Tables 4 and 5 (Sections 3.3.2 and 3.3.3) and as applicable to the Wetlands Optimized Alternative. In addition, because the Wetlands Optimized Alternative is located within and adjacent to the MHPA and could result in potential indirect impacts to the preserve, it would be required to demonstrate consistency with the MSCP SAP Section 1.4.3, LUAGs. The project's consistency with the MHPA LUAGs is demonstrated in Table 6 (Section 3.3.4) and is applicable to the Wetlands Optimized Alternative. Consistency with the LUAGs would ensure minimization of adverse edge effects from implementation of the Wetlands Optimized Alternative. Therefore, indirect impacts to sensitive plant species during construction activities and operation of the Wetlands Optimized Alternative are less than significant, and no mitigation is required.

Sensitive Wildlife Species

Direct Impacts

The Wetlands Optimized Alternative would result in similar impacts to suitable habitat for the 27 sensitive wildlife species observed and the two sensitive wildlife species with a high potential to occur in the project area.

Like the project, the Wetlands Optimized Alternative would conform with the MSCP SAP and the ASMDs as applicable to the nine sensitive wildlife species covered by the MSCP SAP (see Sections 5.4.4, Sensitive Wildlife Species Observed, and 6.2.2, Impacts Analysis). Similarly, the Wetlands Optimized Alternative would conform with CESA and avoid impacts to the CDFW fully protected white-tailed kite. Therefore, direct impacts to these MSCP SAP covered and CDFW fully protected species are less than significant, and no mitigation is required.

Similarly, the Wetlands Optimized Alternative would be required to be in compliance with regulations protecting sensitive nesting birds and raptors, including the CFGC and MBTA. Implementation is ensured through conditions of subsequent project-level approval. Due to known presence of federal and state endangered avian species, potential direct impacts to these sensitive wildlife species would be considered potentially significant without mitigation.

Implementation of the Wetlands Optimized Alternative would result in both permanent and temporary direct loss of habitat for sensitive wildlife species not covered by the MSCP SAP or fully protected under CESA, including roosting bats. This alternative would result in similar direct impacts to sensitive wildlife species as identified for the project, and impacts would be potentially significant without mitigation.

Indirect Impacts

Construction activities and operation of the Wetlands Optimized Alternative would be similar compared to the project; therefore, potential indirect impacts to sensitive wildlife species would occur. The Wetlands Optimized Alternative, like the project, would be required to comply with the City's MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards

Manual (City of San Diego 2012a), and NPDES regulations, through implementation of site design, source control, and incorporation of construction and permanent BMPs. The project's consistency with the MSCP SAP General Management Directives, species-specific ASMDs, and General Planning Policies and Design Guidelines is demonstrated in Tables 4 and 5 (Sections 3.3.2 and 3.3.3) and is applicable to the Wetlands Optimized Alternative. In addition, because the Wetlands Optimized Alternative is located within and adjacent to the MHPA and could result in potential indirect impacts to the preserve, it would be required to demonstrate consistency with the MSCP SAP Section 1.4.3, LUAGs. The project's consistency with the MHPA LUAGs is demonstrated in Table 6 (Section 3.3.4) and is applicable to the Wetlands Optimized Alternative. Consistency with the LUAGs would ensure minimization of adverse edge effects from implementation of the Wetlands Optimized Alternative. Therefore, indirect impacts to sensitive wildlife species during construction activities and operation of the Wetlands Optimized Alternative are less than significant, and no mitigation is required.

Nesting Birds

As previously discussed under Direct Impacts, the Wetlands Optimized Alternative would result in direct impacts to nesting birds and raptors protected under the CFGC and MBTA, including those observed or with a high potential to occur in the project area. The Wetlands Optimized Alternative would be required to implement regulations protecting sensitive nesting birds and raptors, including the CFGC and MBTA. Implementation is ensured through conditions of subsequent project-level approval. Due to known presence of federal and state endangered avian species, potential direct impacts to these sensitive wildlife species would be considered potentially significant without mitigation.

Roosting Bats

As previously discussed under Direct Impacts, the Wetlands Optimized Alternative would result in direct impacts to sensitive bats in the form of permanent and temporary roosting habitat loss. The Wetlands Optimized Alternative would not change the amount or type of potential indirect impacts to sensitive roosting bats analyzed for the project, and impacts would be potentially significant without mitigation.

6.2.3 Mitigation Measures

6.2.3.1 Sensitive Plant Species

As previously discussed in Section 6.1, Significance Thresholds and Definition of Impacts, direct impacts to sensitive plant species, including those not covered by the MSCP SAP, state-listed or federally listed species, or CRPR 1B.1, 1B.2, or 2B.2 species, are considered significant. Impacts to plant species ranked CRPR 3 or 4 would not be considered significant since any populations identified on the project area would not represent a significant percentage of the population in

terms of the ability for the species to persist (i.e., CRPR 4 species are not considered “rare” from a statewide perspective).

In the event sensitive plant species are identified within the potential impact area, including MSCP SAP covered and narrow endemic plant species, non-MSCP SAP covered federally and/or state-listed plant species, or non-MSCP SAP covered CRPR 1B.1, 1B.2, or 2B.2 species, potential impacts are considered potentially significant without mitigation. Implementation of MM BIO-1, Focused Sensitive Plant Species Surveys, would reduce potential direct impacts to sensitive plant species by requiring that subsequent project-level evaluations and focused surveys be conducted prior to any construction associated with the project.

Direct Impacts

Significant direct impacts could occur to the sensitive plant species observed or with a high potential to occur, California seablite, Palmer’s frankenia, and estuary seablite, during project construction, enhancement, and hydrologic restoration activities in these species’ suitable habitat the KFMR/NWP. Implementation of MM BIO-1 and MM BIO-2 would reduce potential indirect impacts to sensitive plant species through conducting sensitive plant species focused surveys prior to construction and monitoring by a qualified biologist throughout construction of the project.

MM BIO-1 Focused Sensitive Plant Species Surveys. Prior to subsequent project-level approval and prior to any construction or grading activities, focused surveys for future site-specific development shall be conducted, as applicable, in suitable habitat, in order to determine presence/absence of sensitive plant species previously observed or with high potential to occur within the proposed project area, including but not limited to California seablite, Palmer’s frankenia, and estuary seablite. For these species, focused surveys shall be conducted during their specific blooming periods to determine presence/absence. If sensitive species are mapped within any proposed construction, access, or staging areas, these areas shall be modified to avoid direct impacts to mapped sensitive plant species. If significant impacts to these species are unavoidable, the take of these species shall be reduced to a less than significant level through implementation of one or a combination of the following actions, in accordance with a City of San Diego approved Conceptual Restoration Plan or acquisition of mitigation credits:

- Impacted plants shall be salvaged and relocated to suitable habitat in the on-site restoration area in Kendall-Frost Marsh Reserve/Northern Wildlife Preserve within the Multi-Habitat Planning Area boundary, if possible. If relocation to this site is not practical, the plants shall be relocated off-site to an appropriate (nearby) location determined by a qualified biologist.
- Seeds from impacted plants shall be collected for use at a local off-site location.

- Off-site habitat that supports the species impacted shall be enhanced and/or supplemented with seed collected on site.
- Comparable habitat at an approved off-site location shall be determined by a qualified biologist and preserved for relocation, enhancement, or transplant of the impacted sensitive plants.

Mitigation that involves relocation, enhancement, or transplant of sensitive plants shall include all of the following:

- Conceptual planting plan prepared by a qualified biologist including grading and, if appropriate, temporary irrigation
- Planting specifications and fencing and signage to discourage unauthorized access of the planting site
- Monitoring program including success criteria
- Long-term maintenance and preservation plan

MM BIO-2 Qualified Monitoring Biologist. Prior to subsequent project-level approval and prior to the start of construction activities, the project biologist shall submit a letter to City of San Diego Development Services Department Mitigation Monitoring Coordination that confirms a qualified monitoring biologist, as defined in the City of San Diego’s Municipal Code, Biology Guidelines, has been retained to implement required monitoring. This letter will also include the names and resumes of all people involved in the biological monitoring of the proposed project, a schedule for the proposed work, and the facility’s pre-approved Facility Maintenance Plan.

The qualified monitoring biologist shall be responsible for the following monitoring and reporting tasks:

- Documentation.** Prior to the issuance of any construction or grading plans in any proposed project area within, or immediately adjacent to, a Multi-Habitat Planning Area, the qualified monitoring biologist shall verify and submit proof to Mitigation Monitoring Coordination that all Multi-Habitat Planning Area boundaries and limits of work have been delineated on all maintenance documents.
- Biological Construction Mitigation/Monitoring Exhibit.** Prior to the start of construction within the future site-specific proposed project area, the qualified monitoring biologist shall submit a Biological Construction Mitigation/Monitoring Exhibit, which includes limits of work, proposed monitoring schedule, avian, focused sensitive species, or other wildlife surveys/survey schedules (including general avian nesting and U.S. Fish and Wildlife protocol), timing of surveys, avian construction avoidance areas/noise

buffers/barriers, other impact avoidance areas, species-specific Multiple Species Conservation Program Subarea Plan Area-Specific Management Directives, and any subsequent requirements determined by the qualified monitoring biologist and the Mitigation Monitoring Coordination. The Biological Construction Mitigation/Monitoring Exhibit shall include the construction site plan, written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule for construction activities. Where the potential for impacts to biological resources is limited (e.g., construction within a footprint that consists entirely of previously developed or disturbed lands), the Biological Construction Mitigation/Monitoring Exhibit may be limited to a pre- and post-maintenance verification inspection. For highly sensitive resource areas, full-time biological monitors may be required. The Biological Construction Mitigation/Monitoring Exhibit shall be approved by Mitigation Monitoring Coordination prior to the start of construction.

- c. **Avian Protection.** In order to prevent impacts to California least tern and other sensitive nesting shorebirds, the qualified monitoring biologist and Mitigation Monitoring Coordination shall ensure that no clearing, grubbing or grading or active wetland creation/restoration shall take place within or adjacent to the Multi-Habitat Planning Area, California least tern preserves, and coastal salt marsh habitats during the City of San Diego's general avian breeding season of February 1 to September 15. Activities must comply with the City of San Diego's Biology Guidelines, Multiple Species Conservation Program Subarea Plan, Land Use Adjacency Guidelines, and applicable state and federal law (e.g., appropriate follow-up surveys, monitoring schedules, construction and noise barriers/buffers). Additionally, the following requirements from the Mission Bay Park Natural Resource Management Plan and Mission Bay Park Master Plan for the California least tern shall be met:

- 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.
- Direct impacts to permanently designated least tern nesting sites shall not be permitted.

- 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 least tern chicks.
 - Any existing noise attenuation berms to prevent any significant noise from reaching the Multi-Habitat Planning Area and least tern preserve shall remain in accordance with the Mission Bay Park Natural Resource Management Plan and Mission Bay Park Master Plan.
 - If construction or wetland creation/restoration construction activities take place during the California least tern 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.
- d. **Resource Marking/Protection.** Prior to the start of construction activities within the future site-specific proposed project area, the qualified monitoring biologist shall supervise the placement of orange construction fencing or similar visible marker, staking, or flagging along the limits of the construction area adjacent to sensitive biological habitats, as shown on the Biological Construction Mitigation/Monitoring Exhibit to ensure crews remain within the approved construction limits. These demarcations shall not be required for areas with existing barriers, such as chain-link fencing, along the limits or facilities that are within and/or adjacent to developed and non-sensitive habitat areas. This task shall include flagging plant specimens and delineating buffers to protect sensitive biological resources (e.g., habitats, sensitive plant and wildlife species, including nesting birds and raptors) prior to construction.
- e. **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

has covered all steep-walled trenches or excavations prior to the end of construction daily. If wildlife species are encountered within any trenches or excavated areas, the qualified monitoring biologist shall remove them, if possible, or provide them with a means of escape (e.g., a ramp or sloped surface at no greater than a 30-degree angle) and allowed to disperse. In addition, the qualified monitoring biologist shall provide training to construction personnel to increase awareness of the possible presence of wildlife beneath vehicles and equipment and to use best judgment to avoid killing or injuring wildlife (see MM BIO-2f).

- f. **Structure Clearance.** Prior to the issuance of any permit to allow for the removal or demolition of trees and existing structures within the project area (particularly the ornamental trees and existing buildings in Campland on the Bay, De Anza Cove, and the Mission Bay Tennis Center, Athletic Fields, and Golf Course), the qualified monitoring biologist shall conduct clearance surveys to flush out any wildlife species nesting, roosting, or otherwise occupying the trees or structures. If wildlife species are encountered within any of the trees or structures (outside the general bird nesting season), the qualified monitoring biologist shall remove them, if possible, or provide them with a means of escape and allowed the species to disperse. If tree-roosting bats are suspected, slow removal by gently pushing the tree over with heavy equipment is required.
- g. **Pre-Construction Meeting/Education.** Prior to the start of any construction activity where the site plan for the construction area indicates that significant impacts to biological resources may occur, a pre-construction meeting shall be held on site with the following in attendance: City of San Diego's project manager, Mitigation Monitoring Coordination representative, the construction contractor (if applicable), and the qualified monitoring biologist. At this meeting, the qualified monitoring biologist shall identify and discuss the construction protocols that apply to the proposed activities and the sensitive nature of the adjacent habitat with appropriate project personnel.

At the pre-construction meeting, the qualified monitoring biologist shall submit to the Mitigation Monitoring Coordination and construction contractor a copy of the Biological Construction Mitigation/Monitoring Exhibit that identifies areas to be protected, fenced, and monitored. This data shall include all buffer limits, if applicable.

Prior to the start of construction activities, the qualified monitoring biologist shall meet with the construction contractor and crew and conduct an on-site educational session regarding the need to avoid impacts outside the approved

construction footprint and to protect sensitive plants and wildlife that may occur at the specific facility. This may include but not be limited to explanations of the avian and wetland buffers, the flag system for removal of invasive species or retention of sensitive plants, and clarification of acceptable access routes/methods and staging areas.

- h. **Biological Monitoring and Reporting.** The qualified monitoring biologist shall inspect/monitor the proposed project construction area in accordance with the approved Biological Construction Mitigation/Monitoring Exhibit. This may be limited to pre- and post-maintenance inspections, weekly visits, or full-time monitoring, as determined by the qualified monitoring biologist and Mitigation Monitoring Coordination.

The qualified monitoring biologist shall document monitoring events via a Consultant Site Visit Record. This record shall be sent to the project manager each month, and the project manager shall forward copies to Mitigation Monitoring Coordination. However, if weekly reports are submitted as part of a separate agency permit requirement, these reports may be forwarded to Mitigation Monitoring Coordination in place of Consultant Site Visit Record submittals.

If no deviations from the construction site plan occur during maintenance, no additional documentation is required. However, if deviations from the site plan do occur, such as unanticipated impacts to sensitive vegetation communities or unanticipated discharge of pollutants, a Final Monitoring Report shall be prepared within 3 months following the completion of mitigation monitoring detailing maintenance and monitoring that occurred and any remedial or compensatory measures taken.

6.2.3.2 Sensitive Wildlife Species

Direct Impacts

Per the SDBG, direct impacts to vegetation communities used by sensitive wildlife species would be conserved or restored through the implementation of MM BIO-3 through MM BIO-5. These mitigation measures provide mitigation or revegetation for impacts to sensitive vegetation communities and jurisdictional aquatic resources that support sensitive wildlife species in the project area.

MM BIO-3 Sensitive Vegetation Communities and Jurisdictional Aquatic Resources Impacts Mitigation. Any direct impacts to sensitive vegetation communities or 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 ratios described in the following table (Mitigation Ratios for Potential Impacts to Sensitive

Vegetation Communities and Jurisdictional Aquatic Resources within the Proposed Project), as well as the ratios defined in any state and/or federal permit(s) issued for the project.

Mitigation Ratios for Potential Impacts to Sensitive Vegetation Communities and Jurisdictional Aquatic Resources within the Proposed Project

General Vegetation Type (Holland/Oberbauer Code)	SDBG Vegetation Community	Jurisdiction	Project Component where Resource is Present	SDBG Required Mitigation Ratio (in COZ)
Disturbed Freshwater Marsh (52410)	Freshwater Marsh	U/R/C/CC	MBTAG	4:1
Southern Coastal Salt Marsh (52120)	Salt Marsh	U/R/C/CC	KFMR/NWP	4:1
Open Water (64100)	Natural Flood Channel/Marine Habitat	U/R/C/CC	Expanded Marshland Habitat, De Anza Cove area	2:1
Eelgrass Beds (64122)	Eelgrass beds ¹	U/R/C/CC	Expanded Marshland Habitat, De Anza Cove area	2:1
Tidal Channel (64112)	Marine Habitat	U/R/C/CC	KFMR/NWP	2:1
Salt Panne (64300)	Salt Panne	U/R/C/CC	KFMR/NWP	4:1
Mudflat (64300)	Marine Habitat	U/R/C/CC	KFMR/NWP	2:1
Disturbed Wetland (Arundo) (11200)	Disturbed Wetland	U A/R/C/CC	MBTAG	2:1

Notes: C = CDFW Jurisdictional; CC = CCC Jurisdictional; COZ = Coastal Overlay Zone; KFMR/NWP = Kendall-Frost Marsh Reserve/Northern Wildlife Preserve; MBTAG = Mission Bay Tennis Center, Athletic Fields, and Golf Course; R = RWQCB Jurisdictional; SDBG = San Diego Biological Guidelines; U = USACE Jurisdictional

¹ At least 1:1 creation mitigation for impacts to eelgrass must occur within Mission Bay to the greatest extent feasible (the remaining 1:1 mitigation may occur outside Mission Bay, if necessary).

1. Potential direct impacts to sensitive vegetation communities, including jurisdictional aquatic resources, resulting from project implementation shall be mitigated through one of the following three options:
 - a. Project compensatory mitigation for proposed impacts to sensitive vegetation communities, including jurisdictional aquatic resources, shall be provided through in-kind and on-site creation, enhancement, and/or restoration.
 - b. Compensatory mitigation requirements that are not able to be satisfied through on-site creation, enhancement, and/or restoration shall be satisfied through the acquisition of mitigation bank credits via a resource agency-approved mitigation site within the Peñasquitos Watershed or by acquisition of other approved off-site mitigation credits. Prior to implementation of

project construction impacts that would require compensatory mitigation, documentation demonstrating the availability of mitigation credits (i.e., credit ledger) at the approved mitigation site must be submitted to the Assistant Deputy Director Environmental Designee for confirmation.

- c. If credits are not available at a resource agency-approved mitigation site within the Peñasquitos Watershed or through other approved off-site mitigation credits, implementation of habitat creation, restoration, enhancement, and/or preservation would occur through an approved Habitat Mitigation and Monitoring Plan. Under this option, as well as under option a, a Habitat Mitigation and Monitoring Plan shall be provided and prepared in accordance with the City of San Diego's Municipal Code, Land Development Code—Biology Guidelines. Mitigation shall conform with the Land Development Code—Biology Guidelines, including definitions for creation, restoration, enhancement, and acquisition identified under Environmentally Sensitive Lands regulations; satisfaction of no net loss; timing in relation to proposed project impacts; and generally, with federal and state mitigation requirements.

When proposed mitigation involves habitat enhancement, restoration or creation, the Habitat Mitigation and Monitoring Plan shall include all of the following information:

- 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 Habitat Mitigation and Monitoring Plan shall include all of 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

The identification of mitigation site credits shall be provided to the Environmental Designee and shall include the following:

- Location of approved mitigation site
- Description of the mitigation credits to be acquired, including support for the conclusion that the acquired habitat mitigates for the specific maintenance impact

- Documentation of the credits that are associated with a mitigation bank, which has been approved by the appropriate resource agencies
- Documentation in the form of a current mitigation credit ledger

MM BIO-4 Eelgrass Beds Creation. Potential direct impacts to eelgrass beds caused by placement of fill material within Mission Bay shall be mitigated in accordance with the requirements of the resource agencies and the City of San Diego. The City of San Diego shall require a mitigation ratio of 2:1, in accordance with the City of San Diego’s Municipal Code, Land Development Code—Biology Guidelines (see table in MM BIO-3). In addition, 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. ~~The remaining 1:1 mitigation required may occur outside Mission Bay, if necessary.~~

Creation mitigation for potential direct impacts to eelgrass beds resulting from project implementation shall be achieved through replanting of the submerged areas surrounding the expanded marshland habitat in Mission Bay where, as a result of project fill activities to create the marshland habitat, water levels shall be raised to depths suitable for eelgrass establishment.

An associated Habitat Mitigation and Monitoring Plan shall be provided or prepared in accordance with the Land Development Code—Biology Guidelines for this creation mitigation and shall include all of the following information:

- Planting specifications, including channel bottom elevations
- Planting would be scheduled during low energy tides (late summer–early fall)
- Monitoring program, including post-project surveys and success criteria
- Long-term maintenance and preservation plan

MM BIO-5 Habitat Restoration in Temporary Impact Areas. Temporary direct impact areas shall be restored to pre-construction topographic contours and conditions, including the revegetation of native plant communities, where appropriate. Habitat restoration and erosion control treatments shall be installed within these short-term impact areas, in accordance with the City of San Diego’s Municipal Code, Land Development Code—Biology Guidelines, Multiple Species Conservation Program Subarea Plan, and the City of San Diego’s Municipal Code, Land Development Code—Landscape Standards. Habitat revegetation shall feature native species that are typical of the area, and associated erosion control best management practices shall include silt fence and microplastic- and weed-free straw fiber rolls, where appropriate. The revegetation areas shall be monitored and maintained for 25 months to ensure adequate establishment and sustainability of the plantings/seedings.

Where a proposed project activity involves potential disturbance of non-native invasive plant species (as identified by the California Invasive Plant Council), these plants shall be entirely removed where feasible, and the removal shall be monitored by the qualified monitoring biologist to ensure that dispersal of propagules (e.g., seeds, stems, etc.) are avoided or minimized. Where removal of plant roots is not feasible (e.g., where erosive flows are predicted), aboveground plant material shall be fully removed and monitored by the qualified monitoring biologist. Where aboveground plant material cannot be removed (e.g., due to limited access), herbicides shall be applied by a licensed pest control advisor, using chemicals permitted as safe within aquatic environments.

Indirect Impacts

MM BIO-6 would be implemented to minimize and avoid indirect impacts to sensitive marine wildlife species that may occur from new sources of noise and vibration during construction of the project.

MM BIO-6 Pre-Construction Hydroacoustic Study. Prior to subsequent project-level approval and prior to any construction activities within the waters of Mission Bay, a hydroacoustic study would be required to determine if the activities have potential to generate sound exposure level exceeding the thresholds described in the following table, Summary of Potentially Significant In-Water Sound Exposure Level Indirect Impacts.

Summary of Potentially Significant In-Water Sound Exposure Level Indirect Impacts

Impact Threshold Type	SEL Impact Threshold for Marine Fish (dB) ¹	SEL Impact Threshold for Marine Mammals (dB _{rms}) ¹	SEL Impact Threshold for Green Turtles (dB _{rms}) ¹
Peak	206	—	—
Accumulated ²	187	—	—
Impact	—	160	166
Vibratory	—	120	166

Notes: dB = decibels; dB_{rms} = decibel root mean square; SEL = sound exposure level

¹ Source: Merkel & Associates 2017.

² Accumulated SEL is derived from the number of pile strikes ($SEL_{cumulative} = SEL + 10 \cdot \log[\#strikes]$) as such, the starting SEL would dictate the number of pile strikes possible prior to exceeding the threshold of 187dB SEL_{cumulative}

1. If evidence from the study determines that construction activities would result in sound exposure level that would cause indirect hydroacoustic impacts on marine species through exceedance of approved thresholds in the table above, implementation of the measures below would reduce the potential impacts to levels less than significant:
 - a. A City of San Diego biologist would monitor for the presence of marine species, including green sea turtles, within 500 feet of the work site during

construction activities in Mission Bay with potential to generate sound exposure level above the impact thresholds (e.g., pile driving) in order to limit the potential for exposure of the animals. If a marine species subject to the thresholds described above is identified within the 500-foot buffer during construction activities, the biologist will direct crews to halt work until the animal has moved outside the buffer.

- b. To the extent feasible, a vibratory hammer shall be used for pile driving during construction. In addition, sound exposure level reduction measures shall be utilized during all work in Mission Bay with potential to generate hydroacoustic effects on marine resources. These measures would include placing a nylon or wooden block between the impact hammer and piles during pile driving to reduce sound exposure level generated by the hammer strikes or “soft start” approaches to encourage marine species to leave the area surrounding work before full sound exposure level are generated.
2. If evidence from the study determines that no significant exceedances of sound exposure level that would affect marine resources are anticipated from the proposed construction activities, no mitigation measures would be necessary.

6.2.4 Significance After Mitigation

6.2.4.1 Proposed Project

Sensitive Plant Species

Direct Impacts

Implementation of MM BIO-1 and MM BIO-2 would mitigate potential direct impacts to sensitive plant species to below a level of significance through conducting sensitive plant species focused surveys prior to construction and monitoring by a qualified biologist throughout construction of the project.

Indirect Impacts

Indirect impacts to sensitive plant species were determined to be less than significant, and no mitigation is required.

Sensitive Wildlife Species

Direct Impacts

Implementation of MM BIO-2 and MM BIO-3 through MM BIO-5 would mitigate potential direct impacts to sensitive wildlife species and their habitats to below a level of significance through monitoring by a qualified biologist, providing mitigation ratios for acreage impacts and the creation and restoration of impacted vegetation communities.

Implementation of MM BIO-2 would mitigate potential direct impacts to sensitive roosting bats to below a level of significance. This mitigation measure would require monitoring by a qualified biologist who is responsible for identifying and flushing any roosting bats from ornamental trees and/or structures prior to removal.

Indirect Impacts

Implementation of MM BIO-6 would reduce potential indirect impacts to sensitive marine wildlife species to below a level of significance. This mitigation measure would require a pre-construction hydroacoustic study to determine if the activities have potential to generate SEL exceeding the thresholds and apply measures to reduce those levels to minimize impacts to marine wildlife.

6.2.4.2 Wetlands Optimized Alternative

Sensitive Plant Species

Direct Impacts

As previously discussed in Section 6.2.2 for the Wetlands Optimized Alternative, this alternative would not change the potential direct impacts to sensitive plant species analyzed for the project or the mitigation required. Implementation of MM BIO-1 and MM BIO-2 would mitigate potential direct impacts to sensitive plant species from development of the Wetlands Optimized Alternative to below a level of significance. These mitigation measures would require that sensitive plant species focused surveys be conducted prior to construction and monitoring by a qualified biologist throughout construction of the Wetlands Optimized Alternative.

Indirect Impacts

Indirect impacts to sensitive plant species were determined to be less than significant, and no mitigation is required.

Sensitive Wildlife Species

Direct Impacts

As previously discussed in Section 6.2.2 for the Wetlands Optimized Alternative, this alternative would not change the potential direct impacts to the sensitive wildlife species, including roosting bats, that were analyzed for the project, or the mitigation required. Implementation of MM BIO-1 and MM BIO-2 would mitigate potential direct impacts to sensitive wildlife species from implementation of the Wetlands Optimized Alternative to below a level of significance. These mitigation measures would require monitoring by a qualified biologist throughout construction of the Wetlands Optimized Alternative.

Indirect Impacts

As previously discussed in Section 6.2.2 for the Wetlands Optimized Alternative, this alternative would not change the potential indirect impacts to sensitive marine wildlife species analyzed for the proposed project or the mitigation required. Implementation of MM BIO-6 would reduce potential indirect impacts to sensitive marine wildlife species to below a level of significance. This mitigation measure would require a pre-construction hydroacoustic study to determine if the activities have potential to generate SEL exceeding the thresholds and apply measures to reduce those levels to minimize impacts to marine wildlife.

6.3 Threshold 2: Sensitive Vegetation Communities

6.3.1 Guidelines for Determination of Significance

Significant impacts could result if the project would have a substantial adverse impact on any Tier I Habitats, Tier II Habitats, Tier IIIA Habitats, or Tier IIIB Habitats as identified in the SDBG or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFG or USFWS.

6.3.2 Impact Analysis

6.3.2.1 Proposed Project

Direct Impacts

A total of 13 vegetation communities and/or land cover types occur in the project area (Tables 9a and 9b) that cover a total of 505.2 acres. Construction of the project could result in potential impacts to 11 sensitive vegetation communities (Figure 13). As previously mentioned, the entire project area is within the COZ.

Of the total project area, approximately 91.17 acres are located within the MHPA boundary. Direct impacts would occur within the MHPA boundary in the KFMR/NWP from the restoration of disturbed land to marshland habitat and from the implementation of hydrologic restoration activities, which would include trenching of tidal channels to ensure that sufficient tidal influence reaches in the newly established marshland habitat to allow it to establish and be sustainable long-term. Additional short-term direct impacts within the MHPA may also occur from enhancement activities (e.g., hand removal of invasive species).

The potential direct impacts to sensitive vegetation communities and land cover types within each of the project areas (KFMR/NWP, existing Campland, MBTAG, and De Anza Cove) are described in the following subsections. An analysis of the exact acreage of impacts that would occur to the sensitive vegetation communities in the project area as a result of the project is not provided at the programmatic level because such analysis would be speculative in nature since future site-specific projects are not known at this time. As future site-specific projects come forward, project-specific

analysis would be conducted in the review phase, and any impacts to sensitive vegetation communities would be avoided, minimized, or mitigated as conditions of project approval prior to the implementation of the future site-specific projects.

Kendall-Frost Marsh Reserve/Northern Wildlife Preserve Area

Implementation of the project, which includes restoration of marshland habitat within existing disturbed land and enhancement and hydrologic restoration activities in the KFMR/NWP, could potentially result in up to ~~857.974~~ 857.974 acres of direct impacts to southern coastal salt marsh, salt panne, mudflats, eelgrass beds, open water, tidal channel, Diegan coastal sage scrub, southern foredunes, and disturbed land that occur in the KFMR/NWP. Implementation of marshland and hydrologic restoration activities that result in impacts to southern coastal salt marsh, salt panne, mudflats, open water, or tidal channels, which are considered wetlands by the SDBG (City of San Diego 2018a), are potentially significant without mitigation. Similarly, southern foredunes (Tier I) and Diegan coastal sage scrub (Tier II) are considered sensitive vegetation communities by the SDBG (City of San Diego 2018a), and impacts would be potentially significant without mitigation.

Potential impacts to 0.74 acre of disturbed and developed land from proposed activities associated with expansion of marshland habitat within KFMR/NWP would not be significant, and no mitigation is required since disturbed and developed land are both considered Tier IV habitats according to the SDBG (City of San Diego 2018a).

Existing Campland

The project would follow the existing MBPMP recommendation to convert the existing Campland recreational site to contiguous marshland habitat with connection to KFMR/NWP. Implementation of this recommendation would result in up to ~~46.25~~ 61.26 acres of direct impacts to ~~disturbed and~~ developed land, ~~both of which are~~ is a Tier IV land covers according to the SDBG (City of San Diego 2018a). Therefore, ~~these impacts to disturbed and~~ developed land would not require mitigation.

The project would also implement the MBPMP recommended expansion of marshland habitat extending from the existing Campland into Mission Bay, as shown on Figure 3. Implementation of this recommendation would result in up to ~~181.73~~ 190.86 acres of direct impacts to open water and eelgrass beds. These communities are considered wetlands and sensitive communities according to the SDBG (City of San Diego 2018a); therefore, impacts to open water and eelgrass beds would be potentially significant without mitigation.

Mission Bay Tennis Center, Athletic Fields, and Golf Course

Implementation of the project, which includes upgrades to the existing tennis center and athletic fields, installation of water quality design features within the existing golf course, and expansion of pedestrian access along Mission Bay Drive, could potentially result in up to ~~63.47~~ 28.93 acres of direct impacts to the vegetation communities and land cover types in the MBTAG. The majority

of the direct impacts (~~61.65~~24.28 acres) would occur to the developed land in the MBTAG. Impacts to Tier IV developed ~~and disturbed~~ land in the MBTAG land would not require mitigation, in accordance with the SDBG (City of San Diego 2018a).

Project activities, as discussed above, in the MBTAG would result in a small amount of impacts (~~1.82~~4.69 acres) to mudflat, open water, disturbed wetland (Arundo), ~~and~~ and disturbed freshwater marsh, ~~and~~ and developed land. Mudflat, open water, disturbed wetland (Arundo), and disturbed freshwater marsh are considered wetlands and sensitive communities according to the SDBG (City of San Diego 2018a). Therefore, impacts to these sensitive communities would be potentially significant without mitigation.

De Anza Cove Area

Implementation of the project could result in impacts of up to ~~5.12~~ 9.86 acres of open water, ~~0.49~~5.29 acres of eelgrass beds, and ~~0.63~~ 6.23 acre of mudflats within the De Anza Cove area. These communities are considered wetlands and sensitive communities according to the SDBG (City of San Diego 2018a); therefore, impacts to open water, eelgrass beds, and mudflats would be potentially significant without mitigation.

Impacts to 54.74 acre of Tier IV developed ~~and disturbed~~ land in the De Anza Cove area would not require mitigation, in accordance with the SDBG (City of San Diego 2018a).

Indirect Impacts

Most of the indirect impacts to sensitive plant species described in Section 6.2, Threshold 1: Sensitive Plant and Wildlife Species, also result in potentially significant indirect impacts to sensitive vegetation communities. As previously discussed in Section 6.2.2, Indirect Impacts, the project would be required to be in compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations through implementation of site design, source control, and incorporation of construction and permanent BMPs. The project's consistency with the MSCP SAP General Management Directives, species-specific ASMDs, and General Planning Policies and Design Guidelines is demonstrated in Tables 4 and 5 (Sections 3.3.2 and 3.3.3). In addition, because the project would be within and adjacent to the MHPA and could result in potential indirect impacts to the preserve, it would be required to demonstrate consistency with the MSCP SAP Section 1.4.3, LUAGs. The project's consistency with the MHPA LUAGs is demonstrated in Table 6 (Section 3.3.4). Consistency with the LUAGs ensures minimization of adverse edge effects from implementation of the proposed project. Therefore, indirect impacts to sensitive vegetation communities during construction activities and operation of the project would be less than significant, and no mitigation is required.

6.3.2.2 Wetlands Optimized Alternative

Direct Impacts

As previously discussed in Section 2.3, the Wetlands Optimized Alternative differs from the project in creating an approximately ~~32.1~~ 32.5 acres of wetlands and associated transitional zones and uplands (low-mid-high wetland/salt marsh and mudflats) by converting the southern portion of the developed De Anza “boot” and the De Anza Cove open waters to wetlands.

The Wetlands Optimized Alternative includes the same construction, enhancement, and hydrologic restoration as the project. This alternative would remove approximately 30.7 acres of developed land in exchange for additional wetlands and transitional uplands (Figure 14). Although the Wetlands Optimized Alternative would result in increased natural area compared to the project, this alternative would not change the potential direct impacts to sensitive vegetation communities during construction, and impacts would be potentially significant without mitigation.

Indirect Impacts

Construction activities and operation of the Wetlands Optimized Alternative would be largely the same compared to the project; therefore, the same potential indirect impacts to sensitive vegetation communities would potentially occur. The Wetlands Optimized Alternative, like the project, would be required to be in compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City’s Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations, through implementation of site design, source control, and incorporation of construction and permanent BMPs. The project’s consistency with the MSCP SAP General Management Directives, species-specific ASMDs, and General Planning Policies and Design Guidelines is demonstrated in Tables 4 and 5 (Sections 3.3.2 and 3.3.3) and is applicable to the Wetlands Optimized Alternative. In addition, because the Wetlands Optimized Alternative is located within and adjacent to the MHPA and could result in potential indirect impacts to the preserve, it would be required to demonstrate consistency with the MSCP SAP Section 1.4.3, LUAGs. The project’s consistency with the MHPA LUAGs is demonstrated in Table 6 (Section 3.3.4) and is applicable to the Wetlands Optimized Alternative. Consistency with the LUAGs ensures minimization of adverse edge effects from implementation of the Wetlands Optimized Alternative. Therefore, indirect impacts to sensitive vegetation communities during construction activities and operation of the Wetlands Optimized Alternative would be less than significant, and no mitigation is required.

6.3.3 Mitigation Measures

6.3.3.1 Direct Impacts

Development of the project would result in potentially significant direct impacts to sensitive vegetation communities, including those located within the MHPA boundary. Implementation of MM BIO-2

(described under Sensitive Plant Species Direct Impacts Mitigation) and MM BIO-3 through MM BIO-5 (described under Sensitive Wildlife Species Direct Impacts Mitigation) would reduce direct impacts to sensitive vegetation communities through monitoring by a qualified biologist, providing mitigation ratios for acreage impacts, and creating and restoring impacted vegetation.

6.3.4 Significance After Mitigation

6.3.4.1 Proposed Project

Direct Impacts

Implementation of MM BIO-2 through MM BIO-5 would reduce potential direct impacts to sensitive vegetation communities to below a level of significance through monitoring by a qualified biologist, adhering to required mitigation ratios for acreage impacts, and creating and restoring impacted vegetation communities.

Indirect Impacts

Indirect impacts to sensitive vegetation communities were determined to be less than significant, and no mitigation is required.

6.3.4.2 Wetlands Optimized Alternative

Direct Impacts

As previously discussed in Section 6.3.2 for the Wetlands Optimized Alternative, this alternative would not change the potential direct impacts to sensitive vegetation communities analyzed for the project or the mitigation required. Implementation of MM BIO-2 and MM BIO-3 through MM BIO-5 would mitigate potential direct impacts to sensitive vegetation communities from development of the Wetlands Optimized Alternative to below a level of significance. These mitigation measures would require monitoring by a qualified biologist, adhering to required mitigation ratios for acreage impacts, and creating and restoring impacted vegetation communities.

Indirect Impacts

Indirect impacts to sensitive vegetation communities were determined to be less than significant, and no mitigation is required.

6.4 Threshold 3: Jurisdictional Aquatic Resources

6.4.1 Guidelines for Determination of Significance

A significant impact could result if the project would have 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.

6.4.2 Impact Analysis

6.4.2.1 Proposed Project

Direct Impacts

As discussed in Section 5.2, Jurisdictional Aquatic Resources, a total of approximately 275.36 acres of wetlands and non-wetland waters potentially under the jurisdiction of the USACE and RWQCB, CDFW and/or wetlands regulated by the City of San Diego occur in the project area. These potentially jurisdictional aquatic resources in the project area include approximately 165.67 acres of wetlands and riparian areas (southern coastal salt marsh, salt panne, mudflats, eelgrass, disturbed wetland [Arundo], and disturbed freshwater marsh) and 109.69 acres of non-wetland waters (open water and tidal channels). As discussed in Section 6.3, Threshold 2: Sensitive Vegetation Communities, the project would result in direct impacts to the aquatic and wetland vegetation communities also potentially under the jurisdiction of the USACE, RWQCB, and CDFW and regulated by the City of San Diego (Figure 15, Impacts to Potentially Jurisdictional Aquatic Resources – Proposed Project). An analysis of the exact acreage of impacts that would occur to wetlands in the project area as a result of the project is not provided at the programmatic level because such analysis would be speculative in nature since future site-specific projects are not known at this time. As future site-specific projects come forward, project-specific analysis would be conducted in the review phase of the project, and any impacts to wetlands would be avoided, minimized, or mitigated as conditions of project approval prior to the implementation of the future site-specific projects.

For development in the COZ, the City requires a 100-foot-wide avoidance buffer surrounding wetland resources to reduce indirect impacts and ensure the value and function of the wetland is maintained. Since large portions of the project necessarily occur within wetlands and the project is confined by existing development in the surrounding area, impacts to the wetland buffers in these areas would be unavoidable and necessary reductions to the width of the wetland buffers would be determined in coordination with the USACE, RWQCB, CDFW, and USFWS prior to project implementation, in accordance with the requirements in SDBG (City of San Diego 2018a). Although wetland buffers may be reduced in some areas, the project would result in expansion and enhancement of wetlands in the De Anza Cove area and KFMR/NWP project component areas through establishment of mudflat and marshland habitat (Figure 3) such that the project would result in a net benefit to these habitats and associated wildlife species by providing an overall increase in wetland area following project implementation. In these locations, the proposed restoration/creation activities would be considered a compatible use within COZ wetland buffers (i.e., restoration), in accordance with the allowed uses listed in Section 143.0130 of City's LDC, ESL regulations. In addition, to the extent feasible, the project would be designed to minimize the extent of construction activities within and adjacent to wetlands, including the number of access routes and the size of

staging areas. As a result, impacts to wetland buffers would be minimized to the maximum extent practicable and would be less than significant, and no mitigation is required.

As previously discussed in Section 3, the project would be required to be in compliance with all federal, state, and local regulations protecting biological resources as a condition of subsequent project-level approvals. This includes complying with applicable federal and state regulations that ensure no net loss of aquatic resources, such as Section 404 of the federal CWA, Sections 9 and 10 of the Rivers and Harbors Act, Section 1600 of the CFGC, and Porter-Cologne. The project would be required to obtain regulatory permits from the USACE, RWQCB, and CDFW and provide compensatory mitigation for impacts prior to the start of construction that would ensure no net loss of resources would result from implementation of the project. Therefore, direct impacts to jurisdictional aquatic resources would be potentially significant without mitigation.

Indirect Impacts

Most of the indirect impacts to sensitive plant species and sensitive vegetation communities described in Sections 6.2.1 and 6.2.2 also result in potentially significant indirect impacts to jurisdictional aquatic resources. As previously discussed in Section 6.2.2, Impact Analysis, the project would be required to be in compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations, through implementation of site design, source control, and incorporation of construction and permanent BMPs. The project's consistency with the MSCP SAP General Management Directives, species-specific ASMDs, and General Planning Policies and Design Guidelines is demonstrated in Tables 4 and 5 (Sections 3.3.2 and 3.3.3). In addition, because the project is within and adjacent to the MHPA and could result in potential indirect impacts to the preserve, it would be required to demonstrate consistency with the MSCP SAP Section 1.4.3, LUAGs. The project's consistency with the MHPA LUAGs is demonstrated in Table 6 (Section 3.3.4). Consistency with the LUAGs ensures minimization of adverse edge effects from implementation of the project. Therefore, indirect impacts to jurisdictional aquatic resources during construction activities and operation of the project would be less than significant, and no mitigation is required.

6.4.2.2 Wetlands Optimized Alternative

Direct Impacts

As previously discussed in Section 2.3, the Wetlands Optimized Alternative differs from the project in creating approximately ~~32.4~~ 32.5 acres of wetlands and associated transitional zones and uplands (low-mid-high wetland/salt marsh and mudflats) by converting the southern portion of the developed De Anza "boot" and the De Anza Bay Cove waters areas to more wetlands.

The Wetlands Optimized Alternative proposes the same construction, enhancement, and hydrologic restoration as the project. This alternative would remove approximately 37.7 ~~30.7~~ acres of developed

land in exchange for additional jurisdictional aquatic resources, including wetland and non-wetland waters (Figure 16, Impacts to Potentially Jurisdictional Aquatic Resources – Wetlands Optimized Alternative). Although the Wetlands Optimized Alternative would result in increased jurisdictional aquatic resources area compared to the project, this alternative, like the project, would be considered a compatible use within COZ wetland buffers (i.e., restoration), in accordance with the allowed uses listed in Section 143.0130 of City’s LDC, ESL regulations. In addition, like the project, the Wetlands Optimized Alternative would be designed to minimize the extent of construction activities within and adjacent to wetlands, including the number of access routes and the size of staging areas. As a result, impacts to wetland buffers would be minimized to the maximum extent practicable and would be less than significant. Further, the Wetlands Optimized Alternative would be required to obtain regulatory permits from the USACE, RWQCB, and CDFW and provide compensatory mitigation for impacts prior to the start of construction for subsequent projects that are implemented under the proposed project to ensure that no net loss of resources would occur. Therefore, direct impacts to jurisdictional aquatic resources would be potentially significant without mitigation.

Indirect Impacts

Construction activities and operation of the Wetlands Optimized Alternative would be the same compared to the project; therefore, indirect impacts to jurisdictional aquatic resources would occur. The Wetlands Optimized Alternative, like the project, would be required to be in compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City’s Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations, through implementation of site design, source control, and incorporation of construction and permanent BMPs. The proposed project’s consistency with the MSCP SAP General Management Directives, species-specific ASMDs, and General Planning Policies and Design Guidelines is demonstrated in Tables 4 and 5 (Sections 3.3.2 and 3.3.3) and is applicable to the Wetlands Optimized Alternative. In addition, because the Wetlands Optimized Alternative is located within and adjacent to the MHPA and could result in potential indirect impacts to the preserve, it would be required to demonstrate consistency with the MSCP SAP Section 1.4.3, LUAGs. The project’s consistency with the MHPA LUAGs is demonstrated in Table 6 (Section 3.3.4) and is applicable to the Wetlands Optimized Alternative. Consistency with the LUAGs would ensure minimization of adverse edge effects from implementation of the Wetlands Optimized Alternative. Therefore, indirect impacts to jurisdictional aquatic resources during construction activities and operation of the Wetlands Optimized Alternative are less than significant, and no mitigation is required.

6.4.3 Mitigation Measures

6.4.3.1 Direct Impacts

Development of the project would result in potentially significant direct impacts to jurisdictional aquatic resources. Implementation of MM BIO-2 (described under Sensitive Plant Species Direct

Impacts Mitigation) and MM BIO-3 through MM BIO-5 (described under Sensitive Wildlife Species Direct Impacts Mitigation) would reduce direct impacts to jurisdictional aquatic resources through monitoring by a qualified biologist, providing mitigation ratios for acreage impacts, and creating and restoring temporary impact areas.

6.4.3.2 Indirect Impacts

No mitigation is required.

6.4.4 Significance After Mitigation

6.4.4.1 Proposed Project

Direct Impacts

Implementation of MM BIO-2 and MM BIO-3 through MM BIO-5 would mitigate potential direct impacts to jurisdictional aquatic resources to below a level of significance through monitoring by a qualified biologist, adhering to required mitigation ratios for acreage impacts, and creating and restoring temporary impact areas.

Indirect Impacts

Indirect impacts to jurisdictional aquatic resources were determined to be less than significant, and no mitigation is required.

6.4.4.2 Wetlands Optimized Alternative

Direct Impacts

Implementation of MM BIO-2 through MM BIO-5 would mitigate potential direct impacts to jurisdictional aquatic resources to below a level of significance through monitoring by a qualified biologist, adhering to required mitigation ratios for acreage impacts, and creating and restoring temporary impact areas.

Indirect Impacts

Indirect impacts to jurisdictional aquatic resources were determined to be less than significant, and no mitigation is required.

6.5 Threshold 4: Wildlife Corridors and Habitat Linkages

6.5.1 Guidelines for Determination of Significance

A significant impact could result if the project would 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.

6.5.2 Impact Analysis

6.5.2.1 Proposed Project

Direct Impacts

As discussed in Section 5.4.8, Wildlife Corridors and Habitat Linkages, the project area is likely to be used as a wildlife movement corridor because it provides suitable nesting, foraging, and dispersal areas for both sensitive and common wildlife species because of the presence of native vegetation communities (among the last remaining marshland in this part of the City), its connection to Mission Bay, and proximity to the Pacific coast and open waters to the west. Further, the western portion of the project area, partially within the KFMR/NWP and Campland areas, is identified in the MSCP SAP as a biological core and linkage area. This core and linkage area borders Mission Bay, which functions as a wildlife movement corridor for resident and migratory birds, marine mammals, and fish species both locally and regionally. The dense residential and commercial development immediately surrounding the project area has the potential to limit wildlife movement through the project area. However, the open space within the western portion and immediately to the south of the project area has been designated as important habitat connectivity areas by the MSCP SAP and is documented as supporting a wide variety of both local and migratory species.

Project impacts are proposed primarily within an existing developed setting (e.g., Campland, De Anza Cove, and MBTAG) or would only be short-term impacts that occur during construction activities to restore and expand wetland habitat within the project area (Figure 13). All existing wildlife corridors would remain in place after implementation of the proposed project. Further, the proposed project would provide an overall enhancement of wildlife movement opportunities throughout much of the project area by establishing native wetland habitat in areas that were previously developed, disturbed, or underwater, which would provide additional foraging habitat and cover for wildlife movement. Therefore, significant direct long-term impacts to wildlife corridors and habitat connectivity provided by the project area are not expected to occur.

The KFMR/NWP does intersect the MHPA and contains sensitive habitat suitable for wildlife movement and foraging (Figure 2). However, the impacts proposed within this area are limited to restoration and other habitat improvements including enhancement and hydrologic restoration, which would provide a long-term benefit for wildlife movement through the project area. While project activities may temporarily disrupt wildlife movement through the project area, the project is not expected to have a significant impact on habitat linkage over the long-term because the overall habitat quality of the existing corridors would increase as a result of project implementation. Therefore, impacts to wildlife corridors and habitat connectivity would be less than significant, and no mitigation is required.

Indirect Impacts

Wildlife movement corridors and habitat connectivity would be impacted by many of the other indirect effects discussed in Section 6.2.2 for impacts to sensitive wildlife species. As previously discussed in Section 6.2.2, Impact Analysis, the project would be required to be in compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations, through implementation of site design, source control, and incorporation of construction and permanent BMPs. The project's consistency with the MSCP SAP General Management Directives, species-specific ASMDs, and General Planning Policies and Design Guidelines, is demonstrated in Tables 4 and 5 (Sections 3.3.2 and 3.3.3). In addition, because the project is located within and adjacent to the MHPA and could result in potential indirect impacts to the preserve, it would be required to demonstrate consistency with the MSCP SAP Section 1.4.3, LUAGs. The project's consistency with the MHPA LUAGs is demonstrated in Table 6 (Section 3.3.4). Consistency with the LUAGs ensures minimization of adverse edge effects from implementation of the proposed project. Therefore, indirect impacts to wildlife movement corridors and habitat connectivity during construction activities and operation of the project would be less than significant, and no mitigation is required.

6.5.2.2 Optimized Wetland Alternative

Direct Impacts

As previously discussed in Section 2.3, the Wetlands Optimized Alternative differs from the project in creating approximately ~~32.1~~ 32.5 acres of wetlands and associated transitional zones and uplands (low-mid-high wetland/salt marsh and mudflats) by converting the southern portion of the developed De Anza 'boot' and the De Anza Bay Cove waters areas to more wetlands.

The Wetlands Optimized Alternative proposes the same construction, enhancement, and hydrologic restoration as the project. This alternative would remove approximately ~~30.7~~ 37.7 acres of developed land in exchange for additional wetlands and transitional uplands (Figure 14). The Wetlands Optimized Alternative would result in increased natural areas, potentially expanding the wildlife movement corridors and habitat connectivity in the area, compared to the project, this alternative would not change the potential direct impacts to wildlife movement during construction, and impacts would be less than significant, and no mitigation is required.

Indirect Impacts

Construction activities and operation of the Wetlands Optimized Alternative would be similar compared to the project; therefore, indirect impacts to wildlife movement corridors would potentially occur. The Wetlands Optimized Alternative, like the project, would be required to be in compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations, through

implementation of site design, source control, and incorporation of construction and permanent BMPs. The project's consistency with the MSCP SAP General Management Directives, species-specific ASMDs, and General Planning Policies and Design Guidelines is demonstrated in Tables 4 and 5 (Sections 3.3.2 and 3.3.3) and is applicable to the Wetlands Optimized Alternative. In addition, because the Wetlands Optimized Alternative is located within and adjacent to the MHPA and could result in potential indirect impacts to the preserve, it would be required to demonstrate consistency with the MSCP SAP Section 1.4.3, LUAGs. The project's consistency with the MHPA LUAGs is demonstrated in Table 6 (Section 3.3.4) and is applicable to the Wetlands Optimized Alternative. Consistency with the LUAGs would ensure minimization of adverse edge effects from implementation of the Wetlands Optimized Alternative by addressing issues of drainage, toxics, lighting, noise, barriers, invasive species, brush management, and grading/development. Therefore, indirect impacts to wildlife movement corridors and habitat connectivity during construction activities and operation of the Wetlands Optimized Alternative would be less than significant, and no mitigation is required.

6.5.3 Mitigation Measures

6.5.3.1 Direct Impacts

No mitigation is required.

6.5.3.2 Indirect Impacts

No mitigation is required.

6.5.4 Significance After Mitigation

6.5.4.1 Proposed Project

Direct Impacts

Direct impacts to wildlife movement corridors and habitat linkages within the project area were determined to be less than significant, and no mitigation is required.

Indirect Impacts

Indirect impacts to wildlife movement corridors and habitat linkages within the project area were determined to be less than significant, and no mitigation is required.

6.5.4.2 Wetlands Optimized Alternative

Direct Impacts

Direct impacts to wildlife movement corridors and habitat linkages within the Wetlands Optimized Alternative area were determined to be less than significant, and no mitigation is required.

Indirect Impacts

Indirect impacts to wildlife movement corridors and habitat linkages within the Wetlands Optimized Alternative area were determined to be less than significant, and no mitigation is required.

6.6 Threshold 5: Habitat Conservation Plans

6.6.1 Guidelines for Determination of Significance

A significant impact could result if the project would 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.

6.6.2 Impact Analysis

6.6.2.1 Proposed Project

As previously discussed, the western portion of the project area that occurs in the KFMR/NWP is within the MHPA, and other potential impacts would occur within and adjacent to the MHPA, including hydrologic restoration, expanded marshland habitat (Figure 2). When land is developed adjacent to the MHPA, there is potential for indirect impacts to occur that would result in detrimental effects related to drainage, toxics, lighting, noise, human intrusion, and invasive species. Indirect impacts from the proposed project could occur adjacent to the MHPA from the demolition of the existing Campland and the installation of expanded marshland habitat. The project would be required to document compliance with the General Planning Policies and Design Guidelines provided in Section 1.4.2 of the MSCP SAP, General Management Directives outlined in Section 1.5.2 of the MSCP SAP, and species-specific ASMDs provided in the MSCP SAP Appendix A (City of San Diego 1997). Table 4 in Section 3.3.2, City of San Diego MSCP SAP, demonstrates the project's compliance with the MSCP SAP General Management Directives and species-specific ASMDs. Table 5 in Section 3.3.3, Multi-Habitat Planning Area, demonstrates the project's compliance with the MSCP SAP General Planning Policies and Design Guidelines. The project would be consistent with the policies and requirements of the MSCP, including mitigation requirements.

6.6.2.2 Wetlands Optimized Alternative

The Wetlands Optimized Alternative proposes the same construction, enhancement, and hydrologic restoration in the same development footprint as the project. Like the project, the Wetlands Optimized Alternative is subject to the same MSCP SAP General Management Directives, ASMDs, and General Planning Policies and Design Guidelines consistency analysis provided in Tables 4 and 5. As discussed in Sections 6.2.2, 6.3.2, 6.4.2, and 6.5.2 for the Wetlands Optimized Alternative, the Wetlands Optimized Alternative would result in similar impacts to sensitive plant and wildlife species, and sensitive vegetation communities compared to the project,

and would implement the same mitigation measures to reduce those impacts to below a level of significance. Because the Wetlands Optimized Alternative occurs in the same location, results in similar impacts to biological resources, and implements the same mitigation measures as the project, the MSCP SAP consistency analyses provided in Tables 4 and 5 are applicable to this alternative. The Wetlands Optimized Alternative would be consistent with the policies and requirements of the MSCP SAP, including mitigation requirements.

6.6.3 Mitigation Measures

No mitigation is required.

6.6.4 Significance After Mitigation

6.6.4.1 Proposed Project

Impacts to conservation planning were determined to be less than significant, and no mitigation is required.

6.6.4.2 Wetlands Optimized Alternative

Impacts to conservation planning were determined to be less than significant, and no mitigation is required.

6.7 Threshold 6: Multi-Habitat Planning Area Adjacency

6.7.1 Guidelines for Determination of Significance

A significant impact could result if the project would introduce land use within an area adjacent to the MHPA that would result in adverse edge effects.

6.7.2 Impact Analysis

6.7.2.1 Proposed Project

The MHPA occurs along the western section of the project area within portions of the KFMR/NWP. Implementation of the proposed project would introduce new land uses adjacent to the MHPA through the demolition of the existing Campland and installation of expanded marshland habitat, thereby increasing the amount of marshland within Mission Bay. As demonstrated in Tables 5 and 6 (in Sections 3.3.2 and 3.3.3 respectively), the project would be a compatible land use within the MHPA and follows the General Planning Policies and Design Guidelines outlined in Section 1.4.2 of the MSCP SAP. Because a portion of the project occurs within the MHPA, the project is required to document compliance with the MHPA LUAGs. Table 6 in Section 3.3.4 documents the project's compliance with the MHPA LUAGs. As demonstrated in Table 6, the project would be compliant with the MHPA LUAGs, and impacts would be less than significant.

6.7.2.2 Optimized Wetland Alternative

The Wetlands Optimized Alternative proposes the same construction, enhancement, and hydrologic restoration in the same development footprint as the project, which includes lands within and immediately adjacent to the MHPA. Like the project, the Wetlands Optimized Alternative is subject to the same MHPA LUAGs consistency analysis provided in Table 6 (Section 3.3.4). As discussed in Sections 6.2.2, 6.3.2, 6.4.2, and 6.5.2 for the Wetlands Optimized Alternative, the Wetlands Optimized Alternative would result in similar impacts to sensitive plant and wildlife species and sensitive vegetation communities as the project and would implement the same mitigation measures to reduce those impacts to below a level of significance. Because the Wetlands Optimized Alternative would occur in the same location, results in similar impacts to biological resources, and would implement similar mitigation measures as the project, the MHPA LUAGs consistency analysis provided in Table 6 is applicable to this alternative. Therefore, the Wetlands Optimized Alternative would be compliant with the MHPA LUAGs, and impacts would be less than significant.

6.7.3 Mitigation Measures

No mitigation is required.

6.7.4 Significance After Mitigation

6.7.4.1 Proposed Project

Impacts from conflicts with the MHPA LUAGs were determined to be less than significant, and no mitigation is required.

6.7.4.2 Wetlands Optimized Alternative

Impacts from conflicts with the MHPA LUAGs were determined to be less than significant, and no mitigation is required.

6.8 Threshold 7: Local Policies or Ordinances

6.8.1 Guidelines for Determination of Significance

A significant impact could result if the project would conflict with any local policies or ordinances protecting biological resources.

6.8.2 Impact Analysis

6.8.2.1 Proposed Project

As discussed in Section 3.3.7, City of San Diego General Plan, the project is located in the City of San Diego; therefore, is subject to the goals and policies in the City's General Plan. The City's General Plan Elements applicable to biological resources includes the Conservation and Recreation Elements. Table 7 (Section 3.3.7) documents the project's consistency with the

Conservation and Recreation Elements goals and policies applicable to biological resources. As demonstrated in Table 7, the project would be consistent with the City's General Plan goals and policies, including mitigation requirements. Therefore, impacts would be less than significant.

6.8.2.2 Wetlands Optimized Alternative

The Wetlands Optimized Alternative proposes the same construction, enhancement, and hydrologic restoration in the same development footprint as the project within the City of San Diego General Plan area. Like the project, the Wetlands Optimized Alternative is subject to the same General Plan Conservation and Recreation Elements consistency analysis provided in Table 7 in Section 3.3.7. As discussed in Sections 6.2.2, 6.3.2, 6.4.2, and 6.5.2 for the Wetlands Optimized Alternative, the Wetlands Optimized Alternative would result in similar impacts to sensitive plant and wildlife species and sensitive vegetation communities compared to the project and would implement the same mitigation measures to reduce those impacts to below a level of significance. Because the Wetlands Optimized Alternative occurs in the same location, results in similar impacts to biological resources, and implements the same mitigation measures as the proposed project, the General Plan Conservation and Recreation Elements consistency analysis provided in Table 7 (Section 3.3.7) is applicable to this alternative. The Wetlands Optimized Alternative would be consistent with the City's General Plan goals and policies, including mitigation requirements. Therefore, impacts would be less than significant.

6.8.3 Mitigation Measures

No mitigation is required.

6.8.4 Significance After Mitigation

6.8.4.1 Proposed Project

Impacts from conflicts with the City's General Plan Conservation and Recreation Element goals and policies were determined to be less than significant, and no mitigation is required.

6.8.4.2 Optimized Wetland Alternative

Impacts from conflicts with the City's General Plan Conservation and Recreation Element goals and policies were determined to be less than significant, and no mitigation is required.

6.9 Threshold 8: Invasive Species Introduction

6.9.1 Guidelines for Determination of Significance

A significant impact could result if the project would introduce invasive species of plants into a natural open space area.

6.9.2 Impact Analysis

6.9.2.1 Proposed Project

As discussed in Sections 6.2 and 6.3, implementation of the project has the potential to introduce non-native invasive plant species into the natural open space areas ~~and within the~~ MHPA of KFMR/NWP, ~~including aquatic areas and Mission Bay~~. However, as demonstrated in Sections 3.3.2 through 3.3.4, the project would be in compliance with the MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations, and comply with the Landscape Regulations (LDC 142.0400 and per Table 142-04F, Revegetation and Irrigation Requirements) requiring all plant species installed within 100 feet of the MHPA be non-invasive. Further, the project incorporates invasive plant species removal into habitat restoration (MM BIO-5) and includes the restoration of the existing Campland site, which currently contains a high number of invasive ornamental species. The restoration of Campland to native marshland habitat would further reduce potential for invasives, particularly ornamentals, from spreading into the MHPA. Habitat restoration per MM BIO-5 would establish a native plant community within any temporarily disturbed areas of native habitat, thus minimizing the potential for invasive plant species. Therefore, impacts from the introduction of invasive species of plants into a natural open space area would be less than significant with mitigation incorporated.

6.9.2.2 Wetlands Optimized Alternative

The Wetlands Optimized Alternative proposes the same construction, enhancement, and hydrologic restoration in the same development footprint as the proposed project. Further construction activities and operation of the Wetlands Optimized Alternative would be largely the same compared to the project; therefore, the same potential for the introduction of invasive species would result. Therefore, the Wetlands Optimized Alternative has the same potential to introduce non-native invasive species of plants into the natural open space areas of KFMR/NWP and Mission Bay compared to the proposed project. This alternative would comply with MSCP SAP, the San Diego RWQCB Municipal Permit, the City's Stormwater Standards Manual (City of San Diego 2012a), and NPDES regulations, and Landscape Regulations (LDC 142.0400 and per Table 142-04F, Revegetation and Irrigation Requirements) requiring all plant species installed within 100 feet of the MHPA be non-invasive. Further, similar to the proposed project, the Wetlands Optimized Alternative would incorporate invasive plant species removal into habitat restoration (MM BIO-5). Therefore, impacts from the introduction of invasive species of plants into a natural open space area would be less than significant with mitigation incorporated.

6.9.3 Mitigation Measures

Implementation of MM BIO-5 would reduce potentially significant impacts from the introduction of invasive species of plants into a natural open space area.

6.9.4 Significance After Mitigation

6.9.4.1 Proposed Project

The potential impacts from introduction of invasive species would be avoided through compliance with the Landscape Regulations (Land Development Code 142.0400 and per Table 142-04F, Revegetation and Irrigation Requirements) requiring all plant species installed within 100 feet of the MHPA be non-invasive and mitigated through implementation of MM BIO-5.

6.9.4.2 Wetlands Optimized Alternative

Implementation of MM BIO-5 would mitigate the potential impacts from the introduction of invasive species of plants into a natural open space area during development of the Wetlands Optimized Alternative to below a level of significance.

6.10 Cumulative Impacts

6.10.1 Cumulative Threshold 1: Sensitive Plant and Wildlife Species

The cumulative project area specific to biological resources was defined by nearby surrounding areas with similar biological resources. Cumulative projects in the vicinity of the project area would have the potential to result in impacts to sensitive plant and wildlife species, including loss of habitat. All projects proposed in the City are required to comply with CEQA. Two projects proposed in the cumulative project area include the Fiesta Island Amendment to the Mission Bay Park Master Plan and Mission Bay Park Improvement Plan. Similar to the project, these cumulative projects are primarily within previously developed areas and include portions of undeveloped open space in Mission Bay. Implementation of these two cumulative projects have the potential to result in impacts to sensitive plant and wildlife species. However, like the project, these cumulative projects are within the MSCP SAP and are required to limit impacts and comply with the biological resource conservation goals of the MSCP.

The MSCP is a long-term regional conservation plan established to protect sensitive species and habitats in San Diego County. The MSCP is divided into subarea plans that are implemented separately from one another. The project area is within the MSCP SAP and partially inside the MHPA.

In an effort to eliminate cumulative impacts to sensitive biological resources throughout San Diego, the City is participating in a regional conservation planning effort, MSCP SAP. This planning effort is designed to address cumulative impacts through development of a regional plan that addresses impacts to covered species and habitats in a manner that assures their conservation despite impacts of cumulative projects over the long-term. The ultimate goal of this plan is the establishment of biological reserve areas in conformance with the State of California Natural Community Conservation Planning Act. In addition to being signatory to the Natural Community Conservation Planning Act, the MSCP SAP is also an adopted Habitat Conservation Plan under Section 10 of FESA.

As previously discussed in Section 3.3.2, the project lies within the urban area of the MSCP SAP boundary. The 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).

Preservation and restoration of habitat, planning in accordance with the biological resource conservation goals of the MSCP SAP, and limitation of impacts in accordance with the MSCP SAP are intended to mitigate cumulative biological resource impacts. Although sections of the proposed project area include wetland buffers within the COZ and inside the City’s designated MHPA boundary, the restoration and enhancement activities proposed in these areas would be considered compatible uses within COZ wetland buffers (i.e., wetland restoration project) and inside the MHPA boundary, in accordance with the City’s SDBG and Section 143.0130 of City’s LDC ESL regulations. The proposed project’s demonstrated consistency with the MSCP SAP through project design and incorporation of mitigation measures is provided in Section 6.6.2. In addition, since construction would occur within and adjacent to the MHPA, the proposed project is required to demonstrate consistency with the MSCP SAP and MHPA LUAGs (provided in Sections 3.3.2 through 3.3.4). Therefore, the project would be consistent with the MSCP SAP, and cumulative impacts to sensitive plant and wildlife species would be less than significant with mitigation incorporated.

6.10.2 Cumulative Threshold 2: Sensitive Vegetation Communities

As discussed above in Section 6.10.1, the proposed project’s demonstrated consistency with the MSCP SAP, MHPA LUAGs, the City’s SDBG, and City’s LDC ESL regulations (provided in Sections 3.3.2 through 3.3.4) ensures the project, in combination with other cumulative projects within the City, would not result in cumulatively considerable impacts to biological resources. In fact, the proposed project would provide a net benefit to the vegetation communities in the project area by restoring and expanding natural wetland and aquatic habitats. Therefore, because the project minimizes impacts to sensitive vegetation communities and demonstrates consistency with the MSCP SAP requirements, the project would not result in a cumulatively considerable impact to sensitive vegetation communities.

6.10.3 Cumulative Threshold 3: Jurisdictional Aquatic Resources

As discussed in Section 6.10.1, the project’s demonstrated consistency with the MSCP SAP, MHPA LUAGs, the City’s SDBG, and City’s LDC ESL regulations (provided in Sections 3.3.2 through 3.3.4) ensures the proposed project, in combination with other cumulative projects within the City, will not result in cumulatively considerable impacts to biological resources. In fact, the project would provide a net benefit to the functions and values of the aquatic resources in the project area by restoring and expanding the wetland and non-wetland waters. In addition, all cumulative projects with potential impacts to jurisdictional aquatic resources would be required to comply

with applicable federal and/or state regulations that ensure no net loss of resources, such as Section 404 of the federal CWA, Sections 9 and 10 of the Rivers and Harbors Act, Section 1600 of the CFGC, and Porter-Cologne. Therefore, because the proposed project minimizes impacts to jurisdictional aquatic resources, demonstrates consistency with the MSCP SAP requirements, and would comply with federal and state permitting regulations, the project would not result in a cumulatively considerable impact to sensitive vegetation communities.

6.10.4 Cumulative Threshold 4: Wildlife Corridors and Habitat Linkages

As discussed in Section 6.10.1, the project's demonstrated consistency with the MSCP SAP, MHPA LUAGs, the City's SDBG, and City's LDC ESL regulations (provided in Sections 3.3.2 through 3.3.4) ensures the project, in combination with other cumulative projects within the City, would not result in cumulatively considerable impacts to biological resources. In fact, the project would provide a long-term benefit for wildlife movement through the project area. Therefore, because the project minimizes impacts to wildlife movement and demonstrates consistency with the MSCP SAP requirements, the project would not result in a cumulatively considerable impact to wildlife corridors and habitat linkages.

6.10.5 Cumulative Threshold 5: Habitat Conservation Plans

As discussed in Section 6.10.1, the project's demonstrated consistency with the MSCP SAP (provided in Tables 4 and 5 in Sections 3.3.2 and 3.3.3) ensures the project, in combination with other cumulative projects within the City, would not result in cumulatively considerable impacts to biological resources. Therefore, because the project minimizes impacts to biological resources covered by the MSCP SAP and demonstrates consistency with the MSCP SAP requirements, the project would not result in a cumulatively considerable impact associated with a conflict with a Habitat Conservation Plan.

6.10.6 Cumulative Threshold 6: Multi-Habitat Planning Area Adjacency

As discussed in Section 6.10.1, the project's demonstrated consistency with the MHPA LUAGs (provided in Table 6 in Section 3.3.4) ensures the proposed project, in combination with other cumulative projects within the City, will not result in cumulatively considerable impacts to biological resources. Therefore, because the project minimizes impacts to biological resources adjacent to and within the MHPA and demonstrates consistency with the MHPA LUAGs, the project would not result in a cumulatively considerable impact associated with a conflict with the MHPA Adjacency Guidelines.

6.10.7 Cumulative Threshold 7: Local Policies and Ordinances

As discussed in Section 6.10.1, the project's demonstrated consistency with the MSCP SAP (provided in Sections 3.3.2 and 3.3.3) ensures the project, in combination with other cumulative projects within the City, would not result in cumulatively considerable impacts to biological resources. Further, the project demonstrates consistency with the City of San Diego General Plan Conservation and Recreation Elements goals and policies applicable to the project. Therefore,

because the project minimizes impacts to biological resources and demonstrates consistency with both the MSCP SAP requirements and City General Plan Conservation and Recreation Elements, the project would not result in a cumulatively considerable impact associated with a conflict with local policies and ordinances protecting biological resources.

6.10.8 Cumulative Threshold 8: Invasive Species Introduction

As discussed in Section 6.10.1, the project's demonstrated consistency with the MSCP SAP, MHPA LUAGs, the City's SDBG, and the City's LDC ESL regulations (provided in Sections 3.3.2 through 3.3.4) ensures the project, in combination with other cumulative projects within the City, would not result in cumulatively considerable impacts to biological resources. In fact, the project would provide a net benefit to the biological resources in the project area by removing invasive plant species and restoring temporary impacts using native plant communities, thus minimizing the potential for invasive plant species in the project area. Therefore, because the project minimizes impacts from invasive species and demonstrates consistency with the MSCP SAP and MHPA LUAGs requirements, the project would not result in a cumulatively considerable impact from invasive species introduction.

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Appendix A. Figures

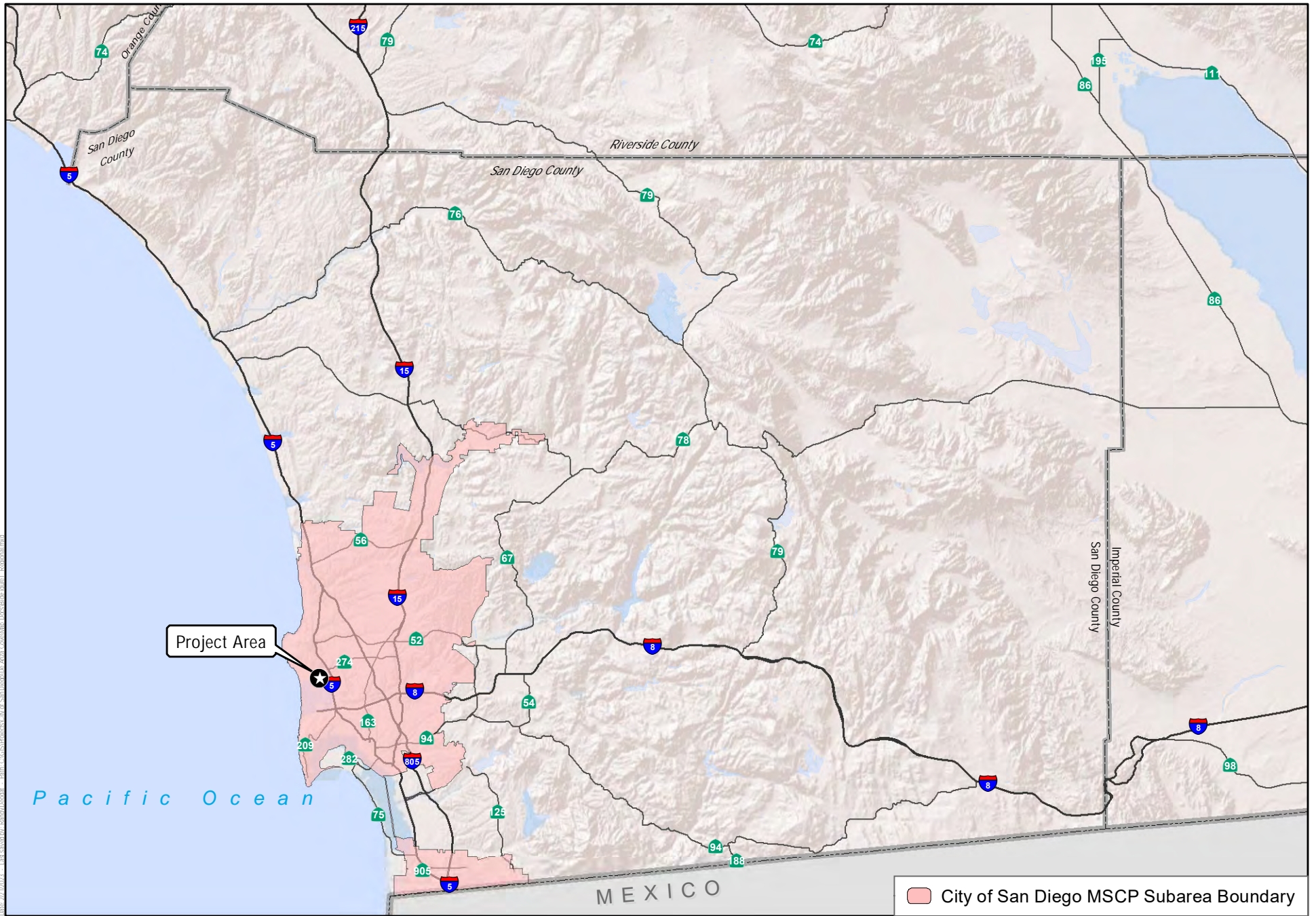
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Appendix B. Species Observed

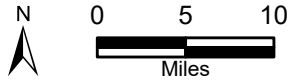
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Appendix A. Figures

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Source: ESRI 2020.



City of San Diego MSCP Subarea Boundary

Figure 1
Regional Location



Source: SanGIS Imagery 2019.

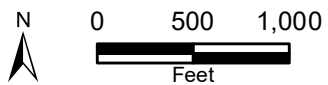


Figure 2
Project Location



Source: City of San Diego 2023.



Figure 3
Site Plan

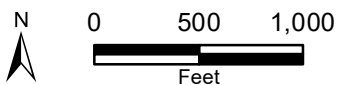
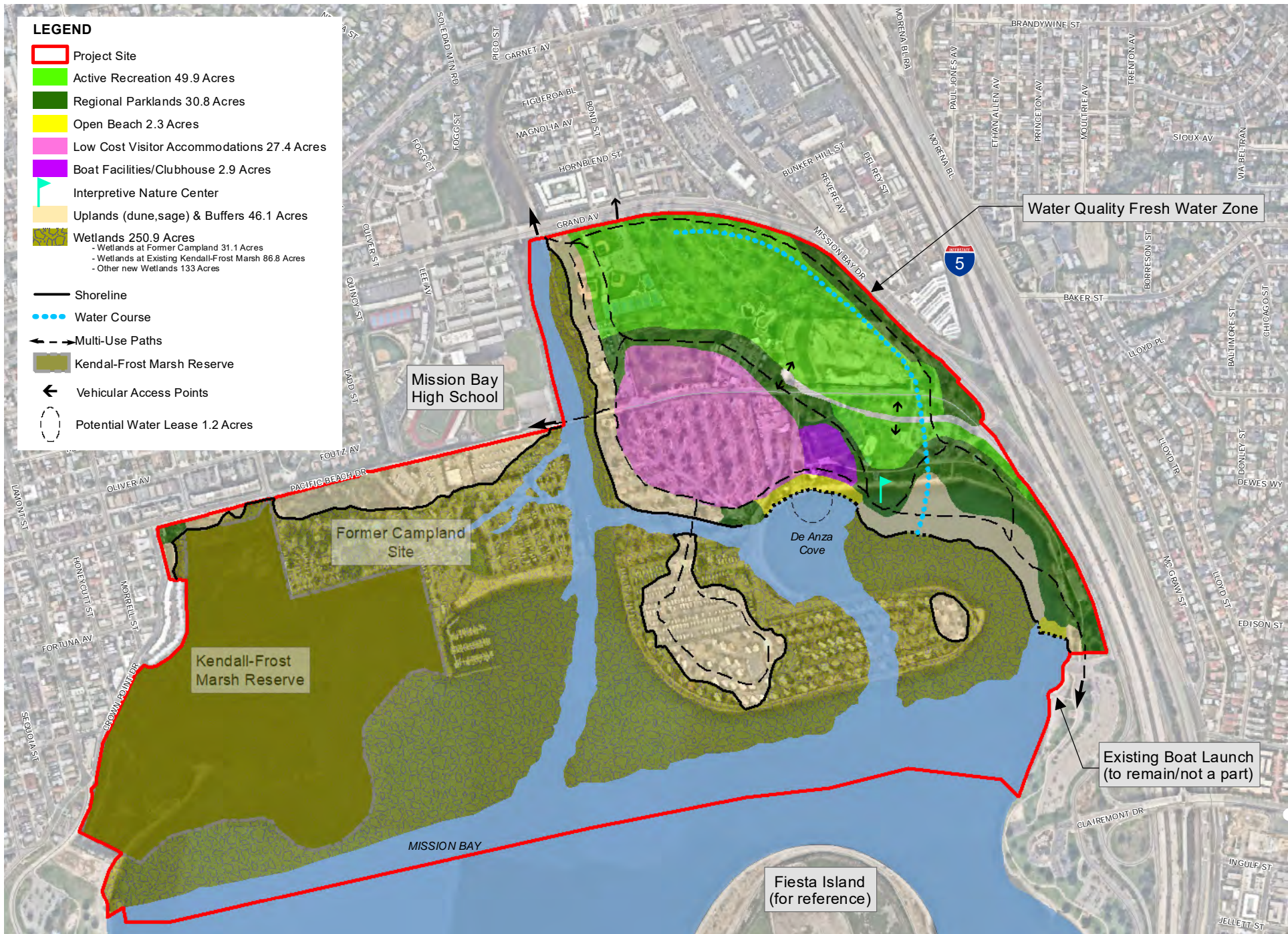
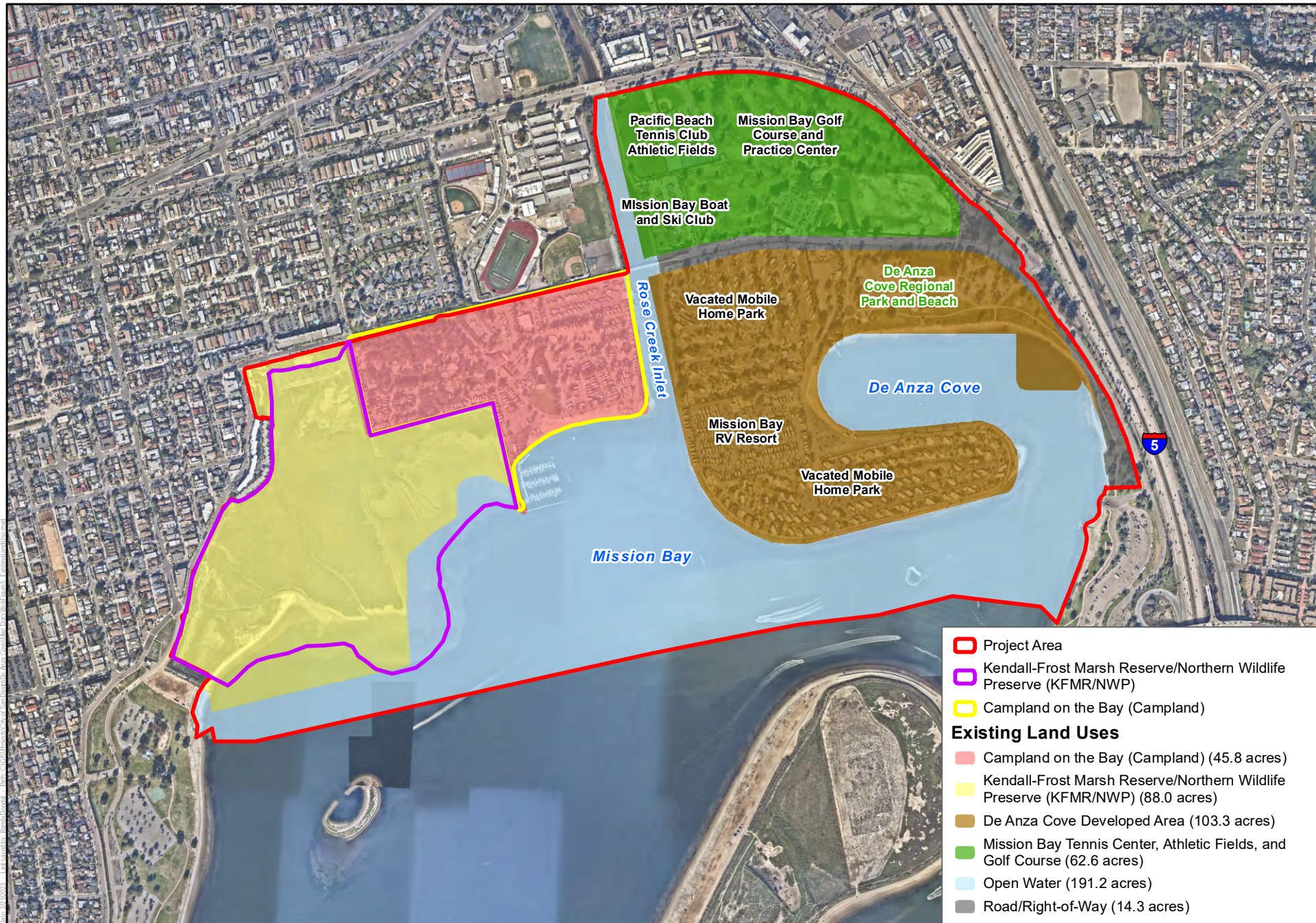


Figure 4
Wetlands Optimized Alternative
De Anza Natural Amendment to the Mission Bay Park Master Plan



Source: SanGIS Imagery 2019.

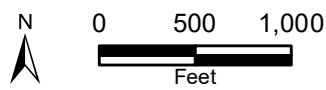
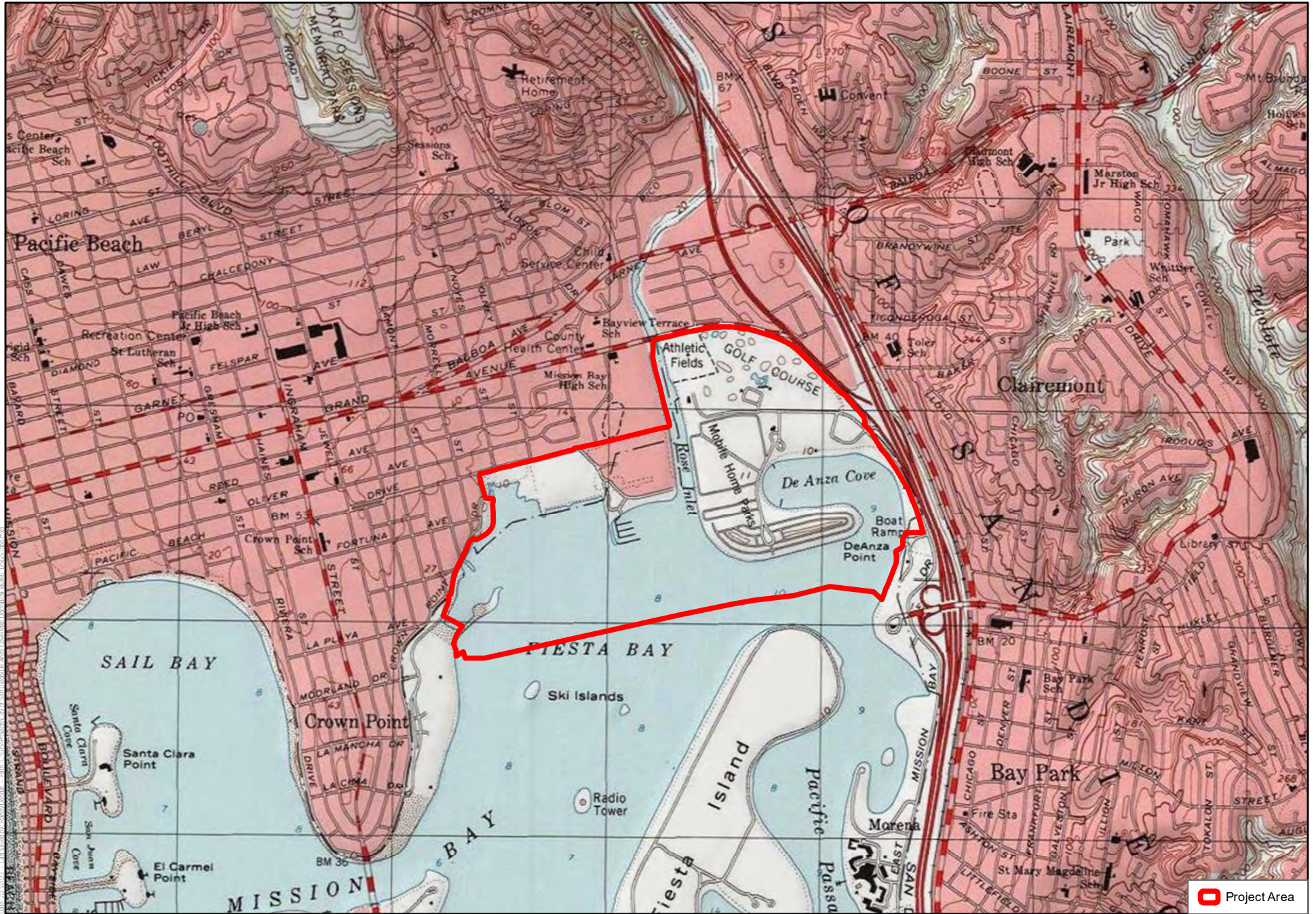


Figure 5
Existing Land Uses



Source: USGS La Jolla 7.5 Minute Quadrangle 1975.

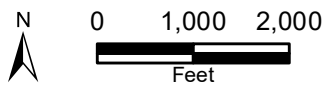
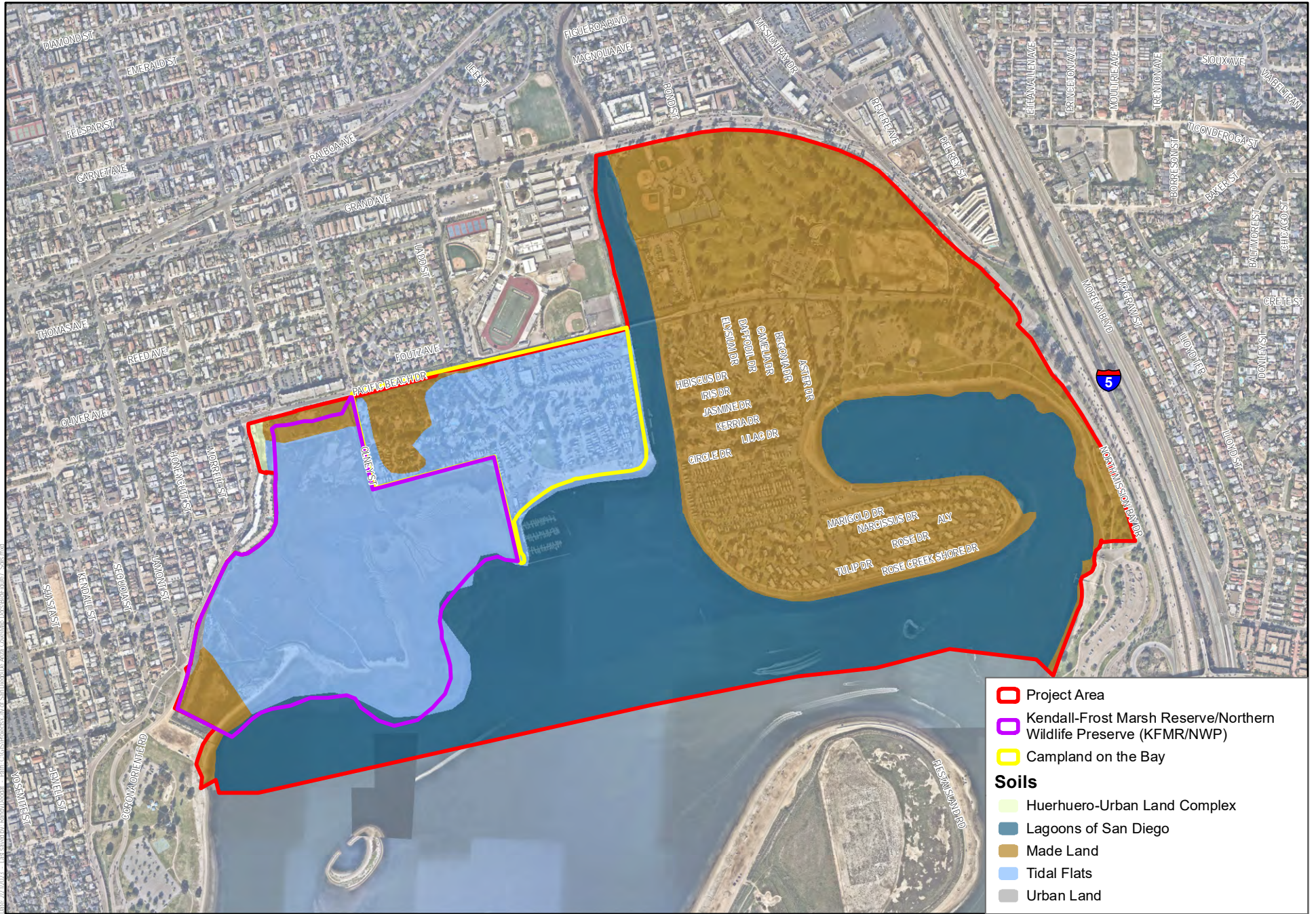


Figure 6

USGS Topographic Map

De Anza Natural Amendment to the Mission Bay Park Master Plan



Source: USDA 1973; SanGIS Imagery 2019.

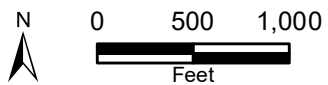
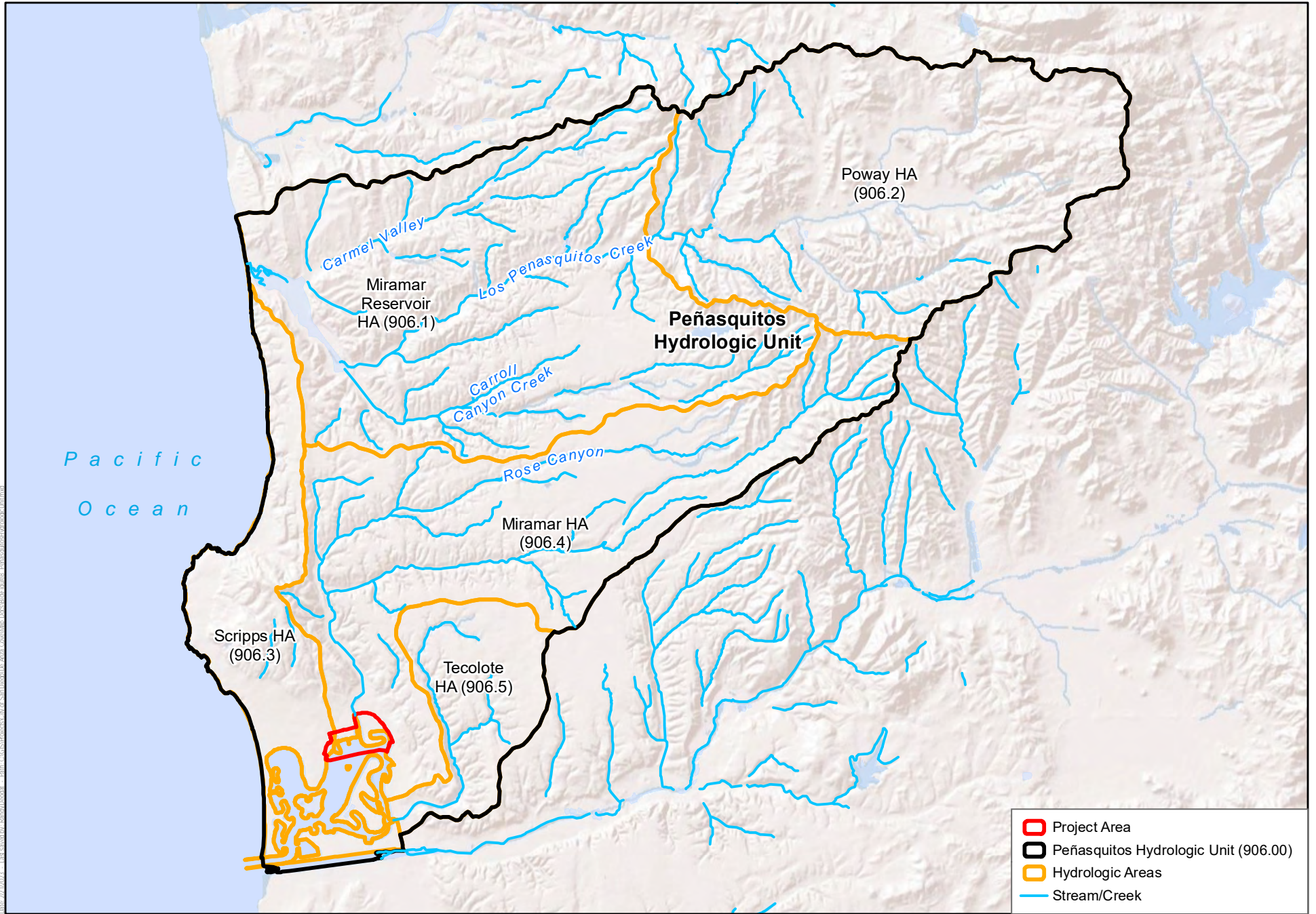


Figure 7

Soils



- ▭ Project Area
- Peñasquitos Hydrologic Unit (906.00)
- Hydrologic Areas
- Stream/Creek

Source: SanGIS 2022; ESRI 2022.

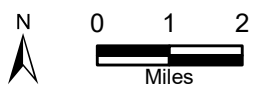
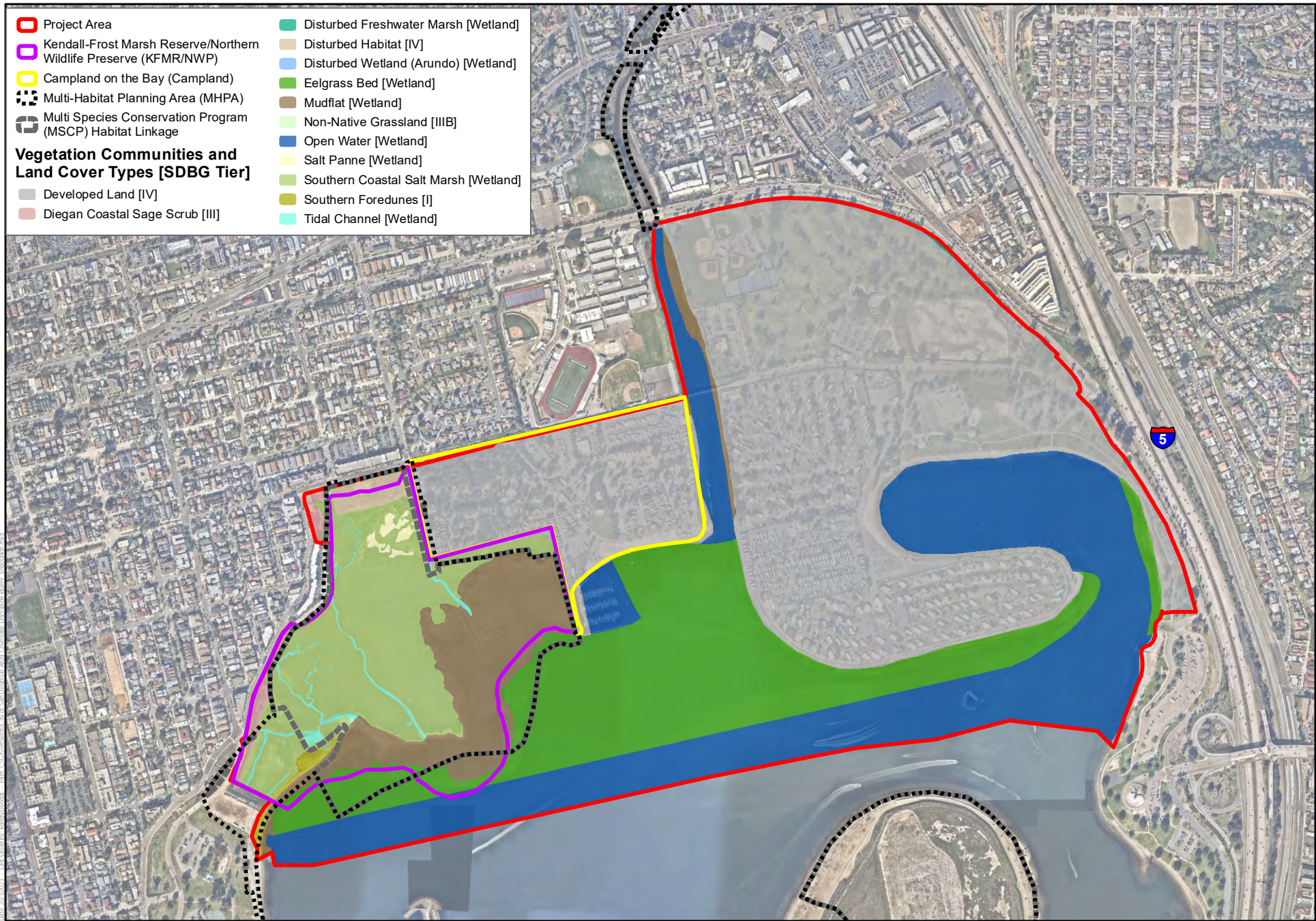


Figure 8

Peñasquitos Hydrologic Unit



Source: Dudek 2022; SanGIS Imagery 2019.

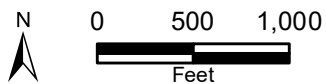
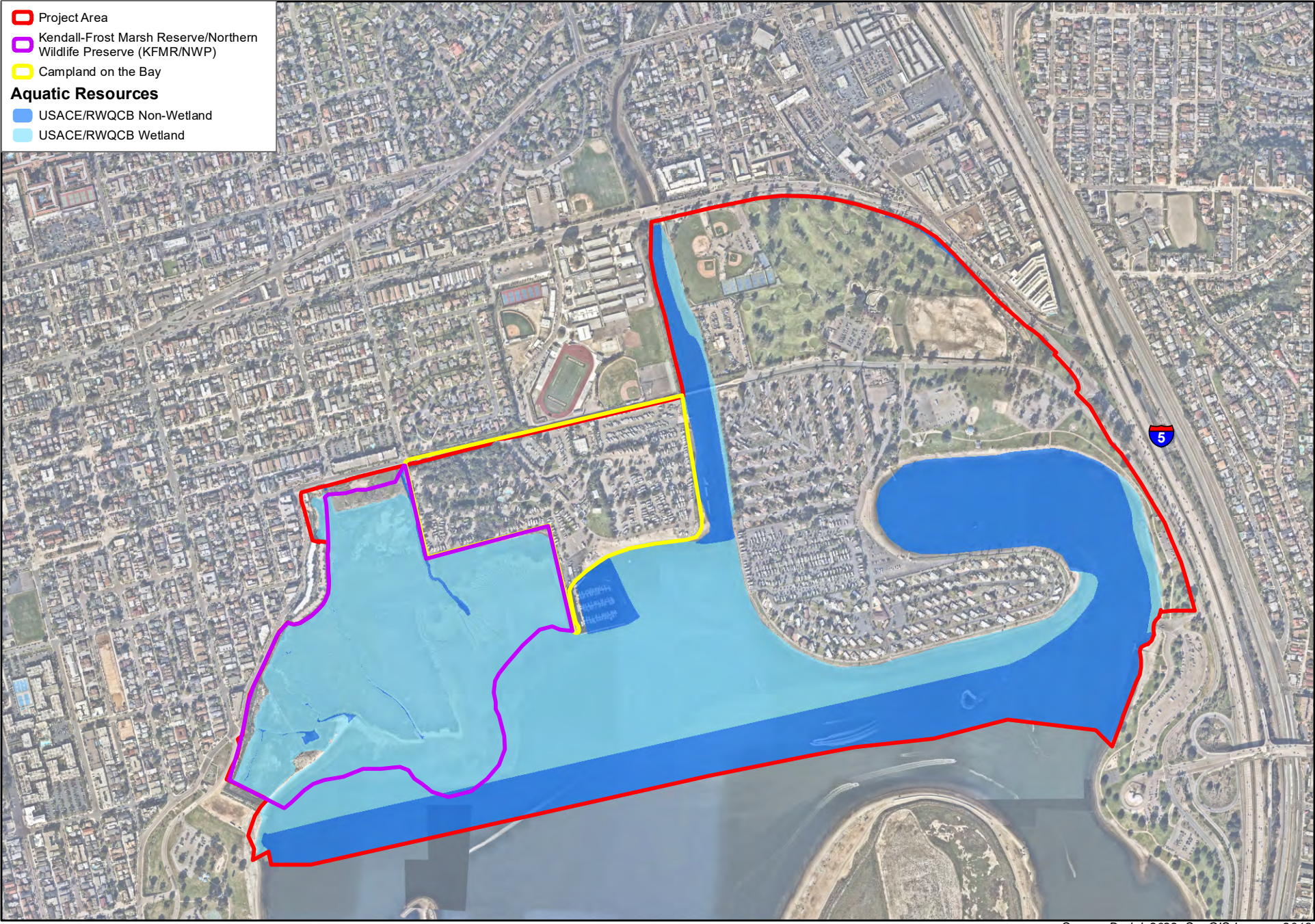


Figure 9
Vegetation Communities and Land Cover Types
De Anza Natural Amendment to the Mission Bay Park Master Plan

- ▭ Project Area
- ▭ Kendall-Frost Marsh Reserve/Northern Wildlife Preserve (KFMR/NWP)
- ▭ Campland on the Bay
- Aquatic Resources**
- ▭ USACE/RWQCB Non-Wetland
- ▭ USACE/RWQCB Wetland



Source: Dudek 2022; SanGIS Imagery 2019.



Figure 10
Aquatic Resources

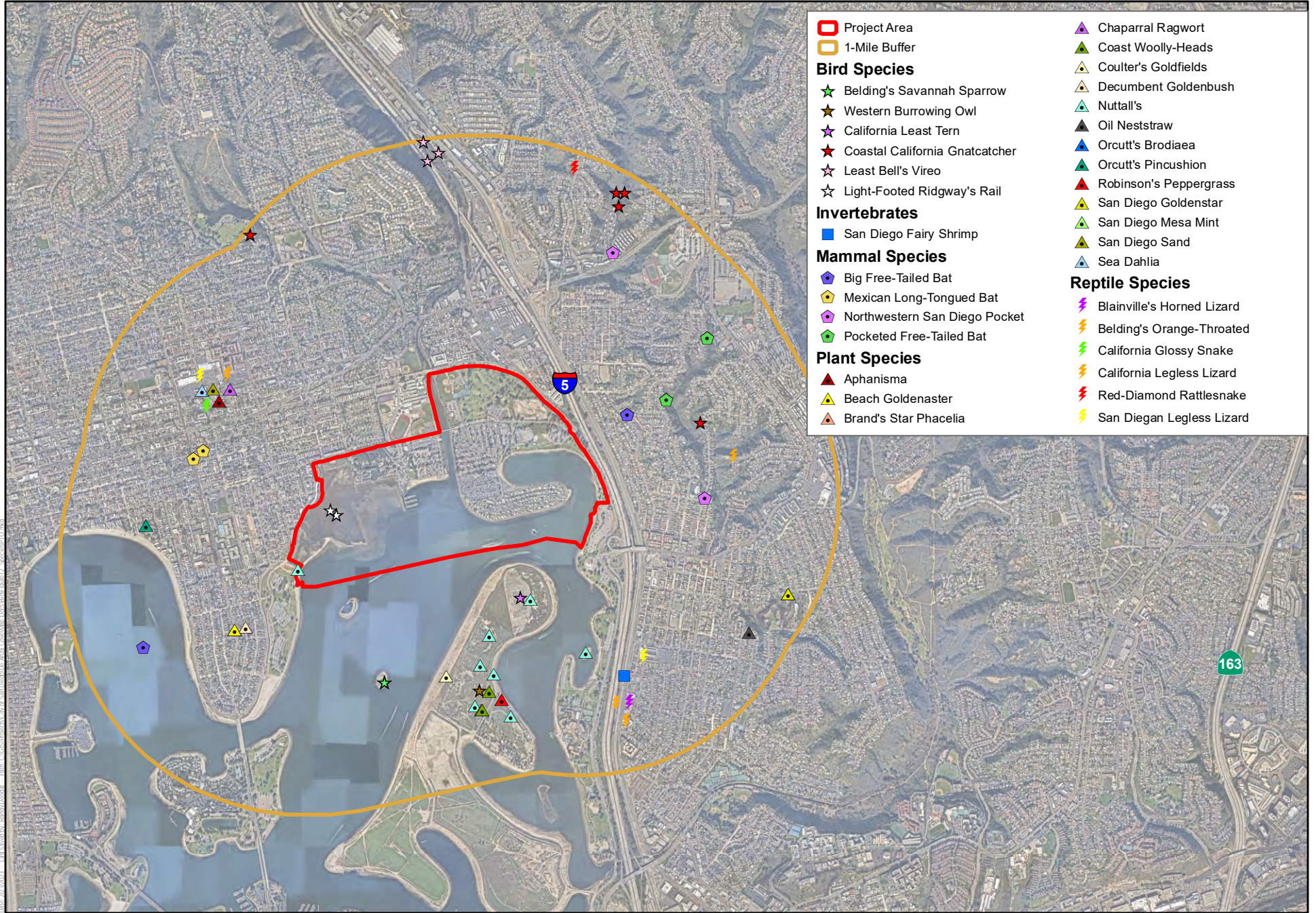
- Project Site
- Sensitive Species Observed**
- California Brown Pelican
- California Gull
- Double-Crested Cormorant
- Monarch Butterfly
- Osprey
- Belding's Savannah Sparrow
- ▲ San Diego Marsh Elder (*Iva hayesiana*)
- ▲ Spiny Rush (*Juncus acutus*)



Source: SanGIS Imagery 2019.



Figure 11
Sensitive Species Observed
 De Anza Natural Amendment to the Mission Bay Park Master Plan



- ▭ Project Area
- 1-Mile Buffer
- Bird Species**
- ★ Belding's Savannah Sparrow
- ★ Western Burrowing Owl
- ★ California Least Tern
- ★ Coastal California Gnatcatcher
- ★ Least Bell's Vireo
- ★ Light-Footed Ridgway's Rail
- Invertebrates**
- San Diego Fairy Shrimp
- Mammal Species**
- ⬢ Big Free-Tailed Bat
- ⬢ Mexican Long-Tongued Bat
- ⬢ Northwestern San Diego Pocket
- ⬢ Pocketed Free-Tailed Bat
- Plant Species**
- ▲ Aphanisma
- ▲ Beach Goldenaster
- ▲ Brand's Star Phacelia
- ▲ Chaparral Ragwort
- ▲ Coast Woolly-Heads
- ▲ Coulter's Goldfields
- ▲ Decumbent Goldenbush
- ▲ Nuttall's
- ▲ Oil Neststraw
- ▲ Orcutt's Brodiaea
- ▲ Orcutt's Pincushion
- ▲ Robinson's Peppergrass
- ▲ San Diego Goldenstar
- ▲ San Diego Mesa Mint
- ▲ San Diego Sand
- ▲ Sea Dahlia
- Reptile Species**
- ⚡ Blainville's Horned Lizard
- ⚡ Belding's Orange-Throated
- ⚡ California Glossy Snake
- ⚡ California Legless Lizard
- ⚡ Red-Diamond Rattlesnake
- ⚡ San Diegan Legless Lizard

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Source: Dudek 2022; SanGIS Imagery 2019.

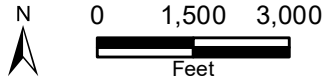


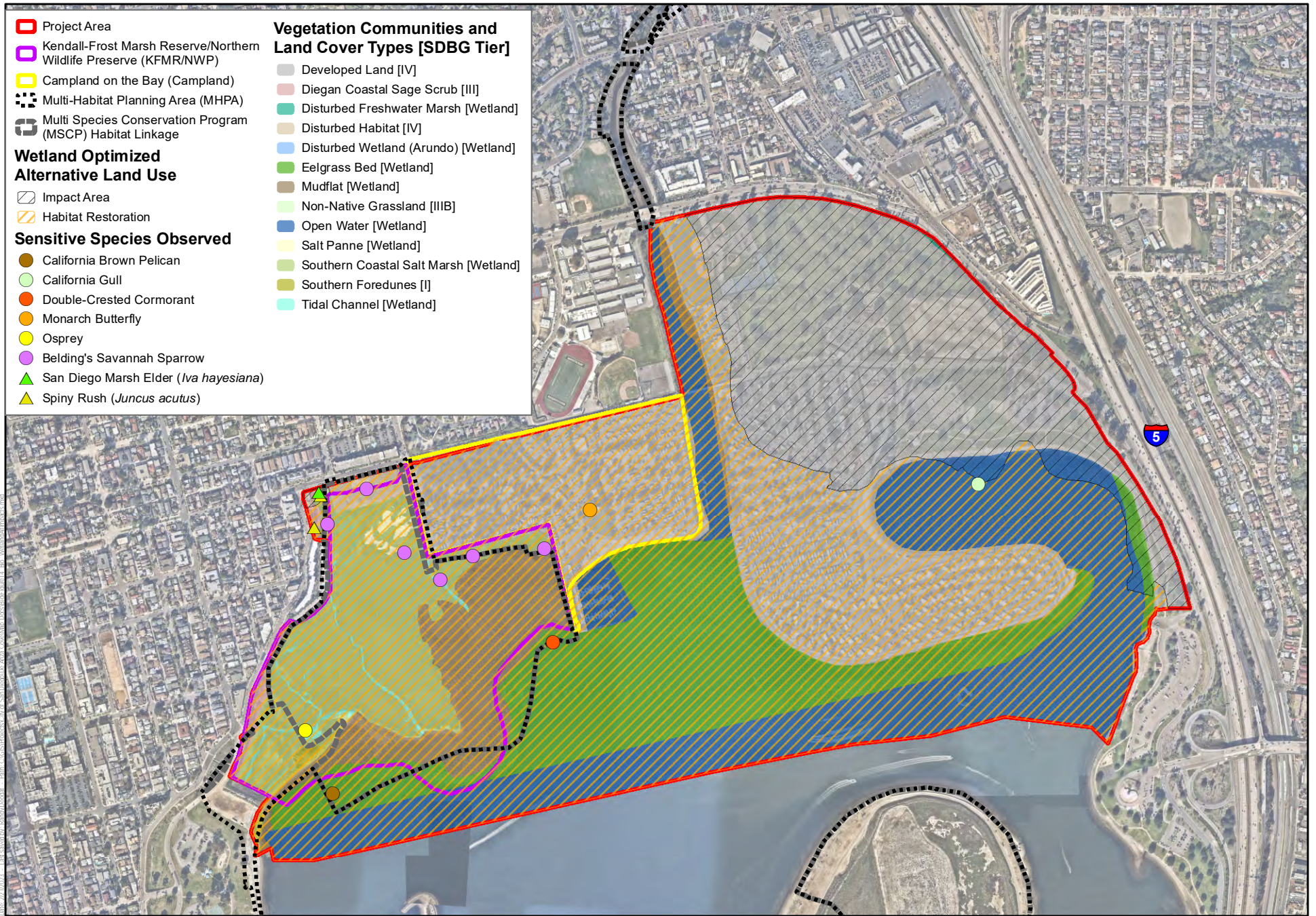
Figure 12
 Sensitive Species with Potential to Occur
 De Anza Natural Amendment to the Mission Bay Park Master Plan



Source: Dudek 2022; SanGIS Imagery 2019.



Figure 13
Impacts to Biological Resources - Proposed Project
De Anza Natural Amendment to the Mission Bay Park Master Plan



Source: Dudek 2022; SanGIS Imagery 2019.

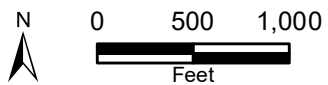
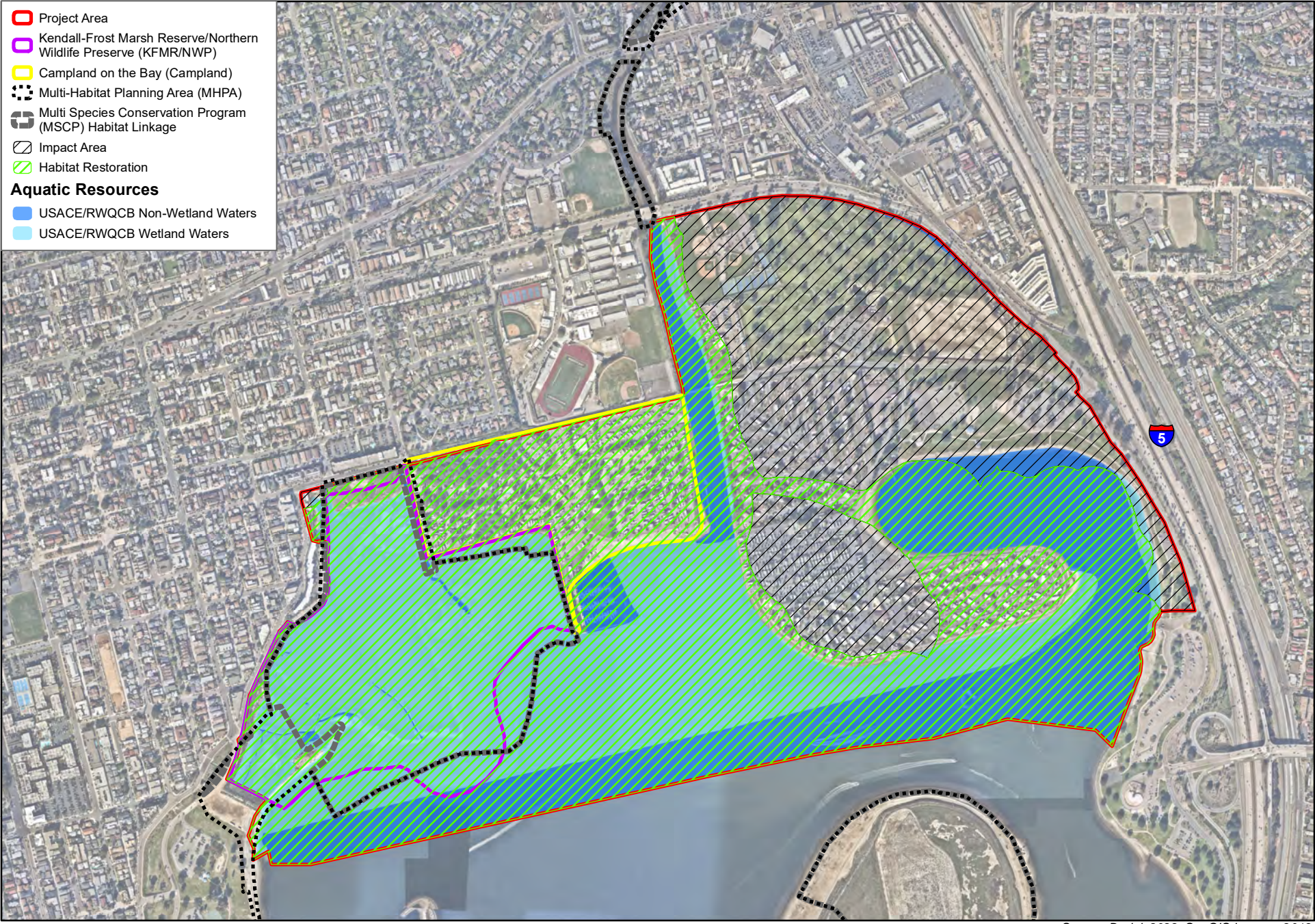


Figure 14
 Impacts to Biological Resources - Wetlands Optimized Alternative
 De Anza Natural Amendment to the Mission Bay Park Master Plan

- ▭ Project Area
 - ▭ Kendall-Frost Marsh Reserve/Northern Wildlife Preserve (KFMR/NWP)
 - ▭ Campland on the Bay (Campland)
 - Multi-Habitat Planning Area (MHPA)
 - Multi Species Conservation Program (MSCP) Habitat Linkage
 - Impact Area
 - ▭ Habitat Restoration
- Aquatic Resources**
- ▭ USACE/RWQCB Non-Wetland Waters
 - ▭ USACE/RWQCB Wetland Waters



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Source: Dudek 2022; SanGIS Imagery 2019.

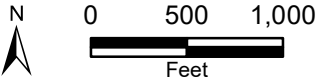


Figure 15

Impacts to Potentially Jurisdictional Aquatic Resources - Proposed Project

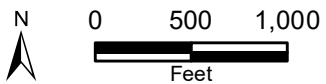
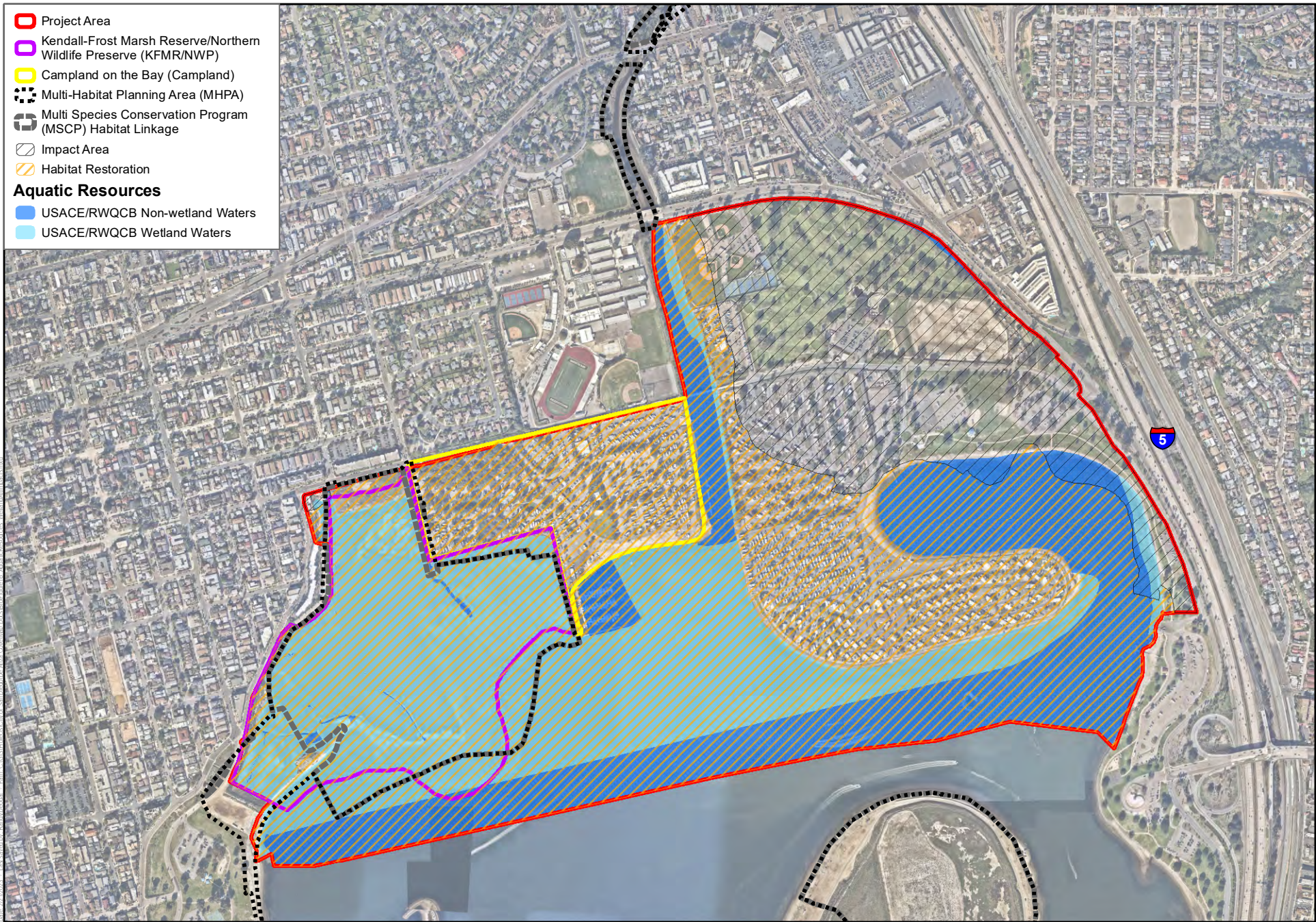


Figure 16
 Impacts to Potentially Jurisdictional Aquatic Resources - Wetlands Optimized Alternative
 De Anza Natural Amendment to the Mission Bay Park Master Plan

Appendix B. Species Observed

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Plant Species Observed

Scientific Name	Common Name
Vascular Species	
Dicots	
Acanthaceae	Acanthus Family
<i>Avicennia marina</i> ¹	Gray mangrove
Aizoaceae	Fig-Marigold Family
<i>Carpobrotus chilensis</i> ¹	Sea fig
<i>Carpobrotus edulis</i> ¹	Ice plant
<i>Malephora crocea</i> ¹	Coppery mesemb
<i>Mesembryanthemum crystallinum</i> ¹	Common iceplant
<i>Mesembryanthemum nodiflorum</i> ¹	Slenderleaf iceplant
Anacardiaceae	Sumac or Cashew Family
<i>Malosma laurina</i>	Laurel sumac
<i>Rhus integrifolia</i>	Lemonade berry
<i>Schinus molle</i> ¹	Peruvian pepper tree
<i>Schinus terebinthifolius</i> ¹	Brazilian pepper tree
Apiaceae	Carrot, Celery, or Parsley Family
<i>Foeniculum vulgare</i> ¹	Fennel
Asteraceae	Sunflower Family
<i>Ambrosia chamissonis</i>	Beach bursage
<i>Artemisia californica</i>	California sagebrush
<i>Baccharis pilularis</i> ssp. <i>pilularis</i>	Coyote brush
<i>Baccharis sarothroides</i>	Broom baccharis
<i>Encelia californica</i>	California brittle bush
<i>Erigeron canadensis</i>	Horseweed
<i>Glebionis coronaria</i> ¹	Crown daisy
<i>Isocoma menziesii</i>	Coastal goldenbush
<i>Iva hayesiana</i> <small>CRPR 2B.2</small>	San Diego marsh-elder
<i>Jaumea carnosa</i>	Marsh jaumea
<i>Pseudognaphalium luteoalbum</i> ¹	Jersey cudweed
<i>Sonchus asper</i> subsp. <i>asper</i> ¹	Prickly sow-thistle
<i>Xanthium strumarium</i>	Rough cocklebur
Bataceae	Saltwort Family
<i>Batis maritima</i>	Turtleweed
Boraginaceae	Borage Family
<i>Heliotropium curassavicum</i>	Salt heliotrope
<i>Heliotropium curassavicum</i> var. <i>oculatum</i>	Seaside heliotrope
Brassicaceae	Mustard Family
<i>Brassica nigra</i> ¹	Black mustard
<i>Cakile maritima</i> ¹	European searocket

Plant Species Observed

Scientific Name	Common Name
Cactaceae	Cactus Family
<i>Cylindropuntia prolifera</i>	Coast cholla
<i>Opuntia littoralis</i>	Coastal prickly pear
Caryophyllaceae	Pink Family
<i>Bougainvillea</i> ¹	Bougainvillea
<i>Limonium</i> sp.	Sea lavender
<i>Spergularia macrotheca</i>	Sticky sandspurry
Chenopodiaceae	Goosefoot Family
<i>Arthrocnemum subterminale</i>	Parish's glasswort
<i>Atriplex lentiformis</i>	Big saltbush
<i>Atriplex leucophylla</i>	Beach saltbush
<i>Atriplex semibaccata</i> ¹	Australian saltbush
<i>Bassia hyssopifolia</i> ¹	Fivehorn smotherweed
<i>Salicornia bigelovii</i>	Dwarf saltwort
<i>Salicornia depressa</i>	Virginia glasswort
<i>Salicornia pacifica</i>	Pickleweed
<i>Salsola australis</i> ¹	Russian thistle
<i>Suaeda californica</i> ^{FE, CRPR 1B.1}	California seablite
<i>Suaeda nigra</i>	Bush seepweed
Cleomaceae	Spiderflower Family
<i>Peritoma arborea</i>	Bladderpod spiderflower
Convolvulaceae	Morning-glory Family
<i>Cressa truxillensis</i>	Alkali weed
<i>Cuscuta nevadensis</i>	Veatch's dodder
Euphorbiaceae	Spurge Family
<i>Ricinus communis</i> ¹	Castorbean
Fabaceae	Legume Family
<i>Acacia</i> sp. ¹	Acacia
<i>Acmispon glaber</i>	Deer weed
Frankeniaceae	Frankenia Family
<i>Frankenia palmeri</i> ^{CRPR 2B.1}	Palmer's frankenia
<i>Frankenia salina</i>	Alkali heath
Malvaceae	Mallow Family
<i>Malva parviflora</i> ¹	Cheeseweed
Moraceae	Mulberry Family
<i>Ficus carica</i> ¹	Common fig
Myrtaceae	Myrtle family
<i>Eucalyptus camaldulensis</i> ¹	Red gum

Plant Species Observed

Scientific Name	Common Name
Oleaceae	Olive Family
<i>Olea europaea</i> ¹	Olive
Onagraceae	Evening Primrose Family
<i>Camissoniopsis cheiranthifolia</i>	Beach suncup
Phrymaceae	Lopseed Family
<i>Diplacus puniceus</i>	Red bush monkeyflower
Plumbaginaceae	Leadwort Family
<i>Limonium californicum</i>	Marsh rosemary
Polygonaceae	Buckwheat Family
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Persicaria lapathifolia</i>	Common knotweed
<i>Rumex crispus</i> ¹	Curly dock
Rosaceae	Rose Family
<i>Heteromeles arbutifolia</i>	Toyon
Salicaceae	Willow Family
<i>Salix lasiolepis</i>	Arroyo willow
Solanaceae	Nightshade Family
<i>Nicotiana glauca</i> ¹	Tree tobacco
Verbenaceae	Vervain Family
<i>Verbena scabra</i>	Sandpaper vervain
Monocots	
Arecaceae	Palm Family
<i>Syagrus romanzoffiana</i> ¹	Queen palm
<i>Washingtonia filifera</i>	California fan palm
<i>Washingtonia robusta</i> ¹	Mexican fan palm
Agavaceae	Agave Family
<i>Agave americana</i> ¹	American century plant
Cyperaceae	Sedge Family
<i>Carex</i> sp.	Sedge
<i>Cyperus papyrus</i> ¹	Papyrus
<i>Schoenoplectus californicus</i>	California bulrush
Juncaceae	Juncus Family
<i>Juncus acutus</i> ^{CRPR 4.2}	Southwestern spiny rush
Juncaginaceae	Arrow-Grass Family
<i>Triglochin maritima</i>	Seaside arrowgrass
Poaceae	Grass Family
<i>Arundo donax</i> ¹	Giant reed
<i>Avena barbata</i> ¹	Slender wild oat
<i>Avena fatua</i> ¹	Wild oat

Plant Species Observed

Scientific Name	Common Name
<i>Bromus diandrus</i> ¹	Ripgut brome
<i>Cortaderia selloana</i> ¹	Pampas grass
<i>Cynodon dactylon</i> ¹	Bermuda grass
<i>Distichlis littoralis</i>	Shoregrass
<i>Distichlis spicata</i>	Salt grass
<i>Festuca perennis</i> ¹	Perennial rye grass
<i>Leymus condensatus</i>	Giant wild rye
<i>Polypogon monspeliensis</i> ¹	Rabbit foot beard grass
<i>Spartina foliosa</i>	California cordgrass
<i>Stipa lepida</i>	Foothill needle grass
Typhaceae	Cattail Family
<i>Typha latifolia</i>	Broad-leaved cattail
Zosteraceae	Seagrass Family
<i>Phyllospadix torreyi</i>	Surfgrass
<i>Zostera marina</i>	Eelgrass
Gymnosperms and Gnetophytes	
Pinaceae	Pine Family
<i>Pinus halepensis</i> ¹	Aleppo pine
Non-Vascular Species	
Ulvaceae	Green Algae Family
<i>Chaetomorpha spiralis</i> ¹	Spaghetti algae
<i>Enteromorpha</i> sp.	Hallow-green nori
<i>Ulva lactuca</i>	Sea lettuce
Rhodophyta	Red Algae Family
<i>Gracilaria pacifica</i>	Red seaweed
<i>Plocamium cartilagineum</i>	Red algae

Notes:

¹ = Non-native

CRPR = California Rare Plant Rank

FE = Federally Endangered

Wildlife Species Observed

Family	Common Name	Scientific Name
Reptiles		
Squamata (Lizards and Snakes)		
Anguillidae Alligator Lizard Family	Southern alligator lizard	<i>Elgaria multicarinata</i>
Anniellidae California Legless Lizards	San Diegan legless lizard ²	<i>Anniella stebbinsi</i>
Colubridae Colubrid Snakes	San Diego Gophersnake	<i>Pituophis catenifer annectens</i>
Iguanidae American Arboreal Lizards, Chuckwallas, and Iguanas	Great Basin fence lizard	<i>Sceloporus occidentalis longipes</i>
Birds		
Accipitriformes (Hawks, Kites, Eagles, and Allies)		
Accipitridae Hawk, Eagle, Kite, and Allies	Cooper's hawk ^{3,4}	<i>Accipiter cooperii</i>
	Northern harrier ^{2,4}	<i>Circus hudsonius</i>
	Osprey ³	<i>Pandion haliaetus</i>
	Red-shouldered hawk	<i>Buteo lineatus</i>
	Red-tailed hawk	<i>Buteo jamaicensis</i>
	White-tailed kite ⁵	<i>Elanus leucurus</i>
Anseriformes (Ducks, Geese, and Swans)		
Anatidae Ducks, Geese, and Swans	American wigeon	<i>Mareca americana</i>
	Brant ²	<i>Branta bernicla</i>
	Bufflehead	<i>Bucephala albeola</i>
	Cinnamon teal	<i>Spatula cyanoptera</i>
	Gadwall	<i>Mareca strepera</i>
	Greater white-fronted goose	<i>Anser albifrons</i>
	Green-winged teal	<i>Anas crecca</i>
	Lesser scaup	<i>Aythya affinis</i>
	Mallard	<i>Anas platyrhynchos</i>
	Northern pintail	<i>Anas acuta</i>
	Northern shoveler	<i>Spatula clypeata</i>
	Red-breasted merganser	<i>Mergus serrator</i>
	Redhead ²	<i>Aythya americana</i>
Ruddy duck	<i>Oxyura jamaicensis</i>	

Wildlife Species Observed

Family	Common Name	Scientific Name
Caprimulgiformes (Nightjars)		
Trochilidae Hummingbirds	Allen's Hummingbird	<i>Selasphorus sasin</i>
	Anna's hummingbird	<i>Calypte anna</i>
	Black-chinned hummingbird	<i>Archilochus alexandri</i>
	Costa's hummingbird ²	<i>Calypte costae</i>
	Rufous hummingbird ⁶	<i>Selasphorus rufus</i>
Charadriiformes (Gulls, Terns, Plovers, and other Shorebirds)		
Charadriidae Plover Family	Black-bellied plover	<i>Pluvialis squatarola</i>
	Killdeer	<i>Charadrius vociferus</i>
	Pacific golden-plover	<i>Pluvialis fulva</i>
	Semipalmated plover	<i>Charadrius semipalmatus</i>
	Snowy plover	<i>Charadrius nivosus</i>
Laridae Gulls, Terns, and Skimmers	Black tern ²	<i>Chlidonias niger</i>
	Black skimmer ^{2,6}	<i>Rynchops niger</i>
	California gull ³	<i>Larus californicus</i>
	California least tern ^{4,5,7,8}	<i>Sternula antillarum browni</i>
	Caspian tern ⁶	<i>Hydroprogne caspia</i>
	Elegant tern ³	<i>Thalasseus elegans</i>
	Forster's tern	<i>Sterna forsteri</i>
	Glaucous-winged gull	<i>Larus glaucescens</i>
	Heermann's gull	<i>Larus heermanni</i>
	Herring gull	<i>Larus argentatus</i>
	Royal tern	<i>Thalasseus maximus</i>
	Ring-billed gull	<i>Larus delawarensis</i>
Western gull	<i>Larus occidentalis</i>	
Recurvirostridae Stilts and Avocets	American avocet	<i>Recurvirostra americana</i>
	Black-necked stilt	<i>Himantopus mexicanus</i>
Scolopacidae Sandpipers, Phalaropes, and Allies	Black turnstone	<i>Arenaria melanocephala</i>
	Dunlin	<i>Calidris alpina</i>
	Greater yellowlegs	<i>Tringa melanoleuca</i>
	Least sandpiper	<i>Calidris minutilla</i>
	Lesser yellowlegs	<i>Tringa flavipes</i>
	Long-billed curlew ^{3,6}	<i>Numenius americanus</i>
	Long-billed dowitcher	<i>Limnodromus scolopaceus</i>
	Marbled godwit	<i>Limosa fedoa</i>
	Red knot	<i>Calidris canutus</i>
	Ruddy turnstone	<i>Arenaria interpres</i>
Sanderling	<i>Calidris alba</i>	

Wildlife Species Observed

Family	Common Name	Scientific Name
	Short-billed dowitcher	<i>Limnodromus griseus</i>
	Solitary sandpiper	<i>Tringa solitaria</i>
	Spotted sandpiper	<i>Actitis macularius</i>
	Whimbrel	<i>Numenius phaeopus</i>
	Western sandpiper	<i>Calidris mauri</i>
	Wilson's snipe	<i>Gallinago delicata</i>
	Willet	<i>Tringa semipalmata</i>
Coraciiformes (Kingfishers and Hornbills)		
Alcedinidae Kingfishers	Belted kingfisher	<i>Megaceryle alcyon</i>
Falconiformes (Caracaras and Falcons)		
<i>Falconidae</i> Caracaras and Falcons	American kestrel	<i>Falco sparverius</i>
	American peregrine falcon ^{4,5,6,9,10}	<i>Falco peregrinus anatum</i>
Gaviiformes (Loons and Divers)		
Gaviidae Loons	Common loon ²	<i>Gavia immer</i>
Gruiformes (Coots, Cranes, and Rails)		
Rallidae Rails and Coots	American coot	<i>Fulica americana</i>
	Light-footed Ridgway's rail ^{4,5,7,8}	<i>Rallus obsoletus levipes</i>
Passeriformes (Perching Birds)		
Alaudidae Larks	California horned lark ³	<i>Eremophila alpestris</i>
Bombyliidae Waxwings	Cedar waxwing	<i>Bombycilla cedrorum</i>
Columbiformidae Dove	Mourning dove	<i>Zenaida macroura</i>
	Rock pigeon ¹	<i>Columba livia</i>
Corvidae Jays, Magpies, and Crows	American crow	<i>Corvus brachyrhynchos</i>
	California scrub-jay	<i>Aphelocoma californica</i>
	Common raven	<i>Corvus corax</i>
<i>Cardinalidae</i> Cardinals and Grosbeaks	Black-headed grosbeak	<i>Pheucticus melanocephalus</i>
	Blue grosbeak	<i>Passerina caerulea</i>
	Lazuli bunting	<i>Passerina amoena</i>
Fringillidae Finches	American goldfinch	<i>Spinus tristis</i>
	House finch	<i>Haemorhous mexicanus</i>
	Lesser goldfinch	<i>Spinus psaltria</i>
<i>Hirundinidae</i> Swallows	Barn swallow	<i>Hirundo rustica</i>
	Cliff swallow	<i>Petrochelidon pyrrhonota</i>
	Northern rough-winged swallow	<i>Stelgidopteryx serripennis</i>
	Tree swallow	<i>Tachycineta bicolor</i>

Wildlife Species Observed

Family	Common Name	Scientific Name
Mimidae Mockingbirds and Thrashers	Northern mockingbird	<i>Mimus polyglottos</i>
Motacillidae Wagtails and Pipits	American pipit	<i>Anthus rubescens</i>
Passerellidae New World Sparrows	Belding's savannah sparrow ^{4,8}	<i>Passerculus sandwichensis beldingi</i>
	California towhee	<i>Melospiza crissalis</i>
	Chipping sparrow	<i>Spizella passerina</i>
	Dark-eyed junco	<i>Junco hyemalis</i>
	Golden-crowned sparrow	<i>Zonotrichia atricapilla</i>
	House sparrow	<i>Passer domesticus</i>
	Lincoln's sparrow	<i>Melospiza lincolnii</i>
	Song sparrow	<i>Melospiza melodia</i>
	Spotted towhee	<i>Pipilo maculatus</i>
White-crowned sparrow	<i>Zonotrichia leucophrys</i>	
Regulidae Kinglets	Ruby-crowned kinglet	<i>Regulus calendula</i>
Sturnidae Starlings	European starling ¹	<i>Sturnus vulgaris</i>
Turdidae Thrushes	American robin	<i>Turdus migratorius</i>
	Hermit thrush	<i>Catharus guttatus</i>
	Western bluebird	<i>Sialia mexicana</i>
Tyrannidae Tyrant Flycatcher	Ash-throated flycatcher	<i>Myiarchus cinerascens</i>
	Black phoebe	<i>Sayornis nigricans</i>
	Cassin's kingbird	<i>Tyrannus vociferans</i>
	Pacific-slope flycatcher	<i>Empidonax difficilis</i>
	Say's phoebe	<i>Sayornis saya</i>
	Western kingbird	<i>Tyrannus verticalis</i>
	Western wood-pewee	<i>Contopus sordidulus</i>
Icteridae American Blackbirds, Orioles, and New World Blackbirds	Brewer's blackbird	<i>Euphagus cyanocephalus</i>
	Brown-headed cowbird ¹	<i>Molothrus ater</i>
	Bullock's oriole	<i>Icterus bullockii</i>
	Hooded oriole	<i>Icterus cucullatus</i>
	Red-winged blackbird	<i>Agelaius phoeniceus</i>
	Western meadowlark	<i>Sturnella neglecta</i>
Parulidae Wood Warblers	Common yellowthroat	<i>Geothlypis trichas</i>
	Orange-crowned warbler	<i>Leiostyris celata</i>
	Palm warbler	<i>Setophaga palmarum</i>
	Townsend's warbler	<i>Setophaga townsendi</i>

Wildlife Species Observed

Family	Common Name	Scientific Name
	Yellow-rumped warbler	<i>Setophaga coronata</i>
	Wilson's warbler	<i>Cardellina pusilla</i>
Aegithalidae Bushtits	Bushtit	<i>Psaltriparus minimus</i>
Troglodytidae Wrens	Bewick's wren	<i>Thryomanes bewickii</i>
	House wren	<i>Troglodytes aedon</i>
	Clark's marsh Wren^{2,6}	<i>Cistothorus palustris clarkae</i>
Pelicaniformes (Pelicans, Ibises, and Herons)		
Ardeidae Bitterns, Egrets, and Herons	Black-crowned night-heron	<i>Nycticorax nycticorax</i>
	California brown pelican ⁵	<i>Pelecanus occidentalis californicus</i>
	Great blue heron	<i>Ardea herodias</i>
	Great egret	<i>Ardea alba</i>
	Green heron	<i>Butorides virescens</i>
	Reddish egret ⁴	<i>Egretta rufescens</i>
	Snowy egret	<i>Egretta thula</i>
Piciformes (Woodpeckers)		
Picidae Woodpeckers	Northern flicker	<i>Colaptes auratus</i>
	Nuttall's woodpecker	<i>Dryobates nuttallii</i>
Podicipediformes (Grebes)		
Podicipedidae Grebes	Clark's grebe	<i>Aechmophorus clarkii</i>
	Eared grebe	<i>Podiceps nigricollis</i>
	Horned grebe	<i>Podiceps auritus</i>
	Pied-billed grebe	<i>Podilymbus podiceps</i>
	Western grebe	<i>Aechmophorus occidentalis</i>
Procellariiformes (Albatrosses, Petrels, and Shearwaters)		
Hydrobatidae Northern Storm Petrels	Leach's storm petrel	<i>Hydrobates leucorhous</i>
Strigiformes (Owls)		
Tytonidae Barn Owls	Barn owl	<i>Tyto alba</i>
Strigidae Typical Owls	Great horned owl	<i>Bubo virginianus</i>
Suliformes (Cormorants)		
Phalacrocoracidae Cormorants	Double-crested cormorant ³	<i>Phalacrocorax auritus</i>
Fregatidae Frigatebirds	Magnificent frigatebird	<i>Fregata magnificens</i>

Wildlife Species Observed

Family	Common Name	Scientific Name
Mammals		
Didelphimorphia (Opossums)		
Didelphidae New World Opossums	Virginia opossum ¹	<i>Didelphis virginiana</i>
Rodentia (Rodents)		
Cricetidae New World Rats and Mice, Voles, Hamsters, and Relatives	Roof rat ¹	<i>Rattus rattus</i>
Geomyidae Pocket Gophers	Botta's pocket gopher	<i>Thomomys bottae</i>
Sciuridae Squirrels, Chipmunks, and Marmots	California ground squirrel	<i>Spermophilus beecheyi</i>
Carnivora (Carnivores)		
Procyonidae Raccoons, Ringtails, and Allies	Raccoon	<i>Procyon lotor</i>
Fish		
Atheriniformes (Silversides)		
Atherinopsidae Silversides	Jack smelt	<i>Atherinopsis californiensis</i>
	Top smelt	<i>Atherinops affinis</i>
Chimaeriformes (Rat Fish)		
Chimeridae Chimera	Spotted ratfish	<i>Hydrolagus collicii</i>
Myliobatiformes (Batoids)		
Urotrygonidae Round Rays	California spotted stingray	<i>Urolophus halleri</i>
	Round ray	<i>Urobatis halleri</i>
Ovalentaria (Surfperches)		
Embiotocidae Surfperches	Shiner perch	<i>Cymatogaster aggregata</i>
Perciformes (Ray-finned Fish)		
Serranidae Groupers and Bass	Barred sand bass	<i>Paralabrax nebulifer</i>
Pleuronectiformes (Flatfish)		
Pleuronectidae Flatfish	California halibut	<i>Paralichthys californicus</i>
Rhinopristiformes (Shovelnose Rays)		
Rhinobatidae Guitarfish	Shovelnose guitarfish	<i>Rhinobatos productus</i>
Scorpaeniformes (Sculpins and Lionfishes)		
Scorpaenidae Scorpionfish	California scorpionfish (sculpin)	<i>Scorpaena guttata</i>

Wildlife Species Observed

Family	Common Name	Scientific Name
Invertebrates		
Actiniaria (Sea Anemones)		
Actiniidae Sand Anemone	Sand anemone	<i>Urticina columbiana</i>
Cerianthidae Tube-Dwelling Anemone	Tube-dwelling anemone	<i>Pachycerianthus fimbriatus</i>
Diadumenidae Sea Anemone	Ghost anemone	<i>Diadumene leucolena</i>
Anostraca (Fairy Shrimp)		
Artemiidae Brine Shrimp	Brine shrimp	<i>Artemia</i> spp.
Cephalaspidea (Bubble Snails)		
Aglajidae Head Shield Slugs and Snails	California aglaja	<i>Navanax inermis</i>
Heterobranchia (Snails and Slugs)		
Aplysiidae Sea Hares	California sea hare	<i>Aplysia californica</i>
Lepidoptera (Butterflies)		
Hesperiidae Skipper Family	Wandering skipper ⁴	<i>Panoquina errans</i>
Lycaenidae Gossamer-Wing Butterflies	Acmon blue	<i>Plebejus acmon</i>
	Western pygmy blue	<i>Brephidium exilis</i>
Nymphalidae Brush-Footed Butterflies	Monarch butterfly ¹¹	<i>Danaus plexippus</i>
	Painted lady	<i>Vanessa cardui</i>
Papilionidae Parnassians and Swallowtails	Western giant swallowtail	<i>Papilio rumiko</i>
Pieridae True Butterflies	Cabbage white	<i>Pieris rapae</i>
	Clouded Sulphur	<i>Colias philodice</i>
	Cloudless sulphur	<i>Phoebis sennae</i>
Littorinimorpha (Sea Snails)		
Buccinidae Sea Snails	Slipper snail	<i>Crepidula</i> spp.
Odonata (Dragonflies)		
Libellulidae Dragonflies	Flame skimmer	<i>Libellula saturata</i>
Pectinida (Scallops)		
Pectinidae Scallop	Rock scallop	<i>Crassedoma giganteum</i>

Notes:

¹ Non-native

- ² California Department of Fish and Wildlife Species of Special Concern
- ³ California Department of Fish and Wildlife Watch List species
- ⁴ City of San Diego MSCP Covered Species
- ⁵ CDFW Fully Protected
- ⁶ Bird of Conservation Concern
- ⁷ Federally Endangered
- ⁸ State Endangered
- ⁹ Federally Delisted
- ¹⁰ State Delisted
- ¹¹ Under review for protection under the Federal Endangered Species Act