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Biological Resources Technical Report

East Harbor Island Redevelopment/Topgolf and Waterfront Park Project

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Acronyms and Abbreviations

°F	degrees Fahrenheit
ADA	Americans with Disabilities Act
amsl	above mean sea level
AST	aboveground storage tank
Avis	Avis Rent A Car System, LLC
BMP	best management practice
BRTR	Biological Resources Technical Report
CCA	California Coastal Act
CCC	California Coastal Commission
CDFW	California Department of Fish and Wildlife
CEMP	California Eelgrass Mitigation Policy
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CGP	Construction General Permit
City	City of San Diego
CNPS	California Native Plant Society
County	County of San Diego
CRPR	California Rare Plant Rank
CWA	Clean Water Act
District	San Diego Unified Port District
EFH	Essential Fish Habitat
EHI	East Harbor Island
Enterprise	Enterprise Mobility
EPA	Environmental Protection Agency
FESA	federal Endangered Species Act
FMP	Fishery Management Plan
GIS	geographic information system
GPS	Global Positioning System
HAPC	Habitat Area of Particular Concern
Harris	Harris & Associates
Hertz	The Hertz Corporation
INRMP	San Diego Bay Integrated Natural Resources Management Plan
JRMP	Jurisdictional Runoff Management Program
LED	light-emitting diode
MBTA	Migratory Bird Treaty Act
MMPA	Marine Mammal Protection Act
MSA	Magnuson-Stevens Fishery Conservation and Management Act
MSCP	Multiple Species Conservation Program
NCCP	Natural Community Conservation Planning
NHD	National Hydrography Dataset
NMFS	National Marine Fisheries Service

NOAA	National Oceanographic and Atmospheric Administration
NPDES	National Pollutant Discharge Elimination System
NWI	National Wetlands Inventory
PMP	Port Master Plan
PMPU	Port Master Plan Update
Porter-Cologne	Porter-Cologne Water Quality Control Act
Project	East Harbor Island Redevelopment/Topgolf and Waterfront Park Project
RWQCB	Regional Water Quality Control Board
SDIA	San Diego International Airport
SEL	sound exposure level
SWPPP	Stormwater Pollution Prevention Plan
Topgolf	Topgolf, USA
USACE	U.S. Army Corps of Engineers
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey
UST	underground storage tank
WL	California Watch List
WOTUS	waters of the United States

Executive Summary

Harris & Associates (Harris) prepared this Biological Resources Technical Report (BRTR) in support of the Environmental Impact Report for the proposed East Harbor Island Redevelopment/Topgolf and Waterfront Park Project (Project). The Project area is on East Harbor Island (EHI) within the San Diego Unified Port District (District) in the City of San Diego (City), California, and consists of developed land currently occupied by the San Diego Harbor Police headquarters; Avis Rent A Car System, LLC (Avis), Enterprise Mobility (Enterprise) (operated by National Car Rental), and The Hertz Corporation (Hertz) rental car companies; and the San Diego International Airport (SDIA) temporary construction staging facilities. Existing structures include several one- and two-story buildings, various shade structures, parking lots, fencing, and walkway pavement. The Project includes redevelopment of approximately 22.4 acres on EHI.

The biological resources analysis was performed through a review of existing maps, literature, resource databases, and data collected during the field survey conducted by Harris biologists. A general biological reconnaissance survey was conducted by Harris in February 2024 to map vegetation communities, marine habitats and land cover types, document observed plant and wildlife species, evaluate the potential for occurrence of sensitive plant and wildlife species in the Project area and within a 100-foot survey buffer surrounding the Project area (together referred to as the “survey area”). Three sets of avian use surveys were conducted over the course of 2024, with three survey sets conducted during the winter season, the summer breeding season, and the fall migration season. No formal aquatic resources delineation, in-water marine surveys, focused protocol surveys, or rare plant surveys were conducted as part of the 2024 biological reconnaissance survey effort. The 2023 San Diego Bay Eelgrass Inventory was used to document the extent of eelgrass bed within the survey area (U.S. Navy Region Southwest Naval Facilities Engineering Systems Command 2024).

Three marine habitats and two land cover types were identified in the survey area. The three native marine communities in the survey area include shallow subtidal, moderately deep subtidal, and eelgrass beds, which occur in a small portion of the south-central Project area and along the southern portion of the survey buffer. The two land cover types include disturbed habitat and urban/developed land. Most of the survey area is composed of urban/developed land.

No sensitive plant species were observed in the survey area, and based on the literature and database reviews, no sensitive plant species were determined to have a high potential to occur in the survey area.

Three sensitive wildlife species, Cooper's hawk (*Accipiter cooperii*), California horned lark (*Eremophila alpestris actia*), and double-crested cormorant (*Phalacrocorax auritus*), were observed in the survey area during the 2024 biological reconnaissance and avian use surveys. Based on the literature and database reviews, one sensitive wildlife species, California least tern (*Sternula antillarum browni*), was determined to have a high potential to occur in the survey area but were not observed during the surveys. The survey area was determined to have potential to support sensitive foraging birds, raptors, seabirds and shorebirds, nesting birds and raptors protected under the California Fish and Game Code (CFGC) and Migratory Bird Treaty Act (MBTA), sensitive roosting bats, foraging marine mammals protected by the Marine Mammal Protection Act (MMPA), and managed fish species in Essential Fish Habitat (EFH).

No critical habitat for sensitive plant or wildlife species occurs in or within 1 mile of the survey area; however, all of San Diego Bay is proposed as critical habitat for green sea turtle (Eastern Pacific Distinct Population Segment). It was determined that the survey area provides wildlife movement corridors and habitat linkages limited to migratory birds, some small and medium terrestrial species, and marine species.

The Project is required to comply with federal, state, and local regulations applicable to biological resources as a condition of approval. The Project could result in potentially significant direct and indirect impacts to sensitive wildlife species, including sensitive foraging birds, raptors, seabirds, shorebirds, nesting birds and raptors, roosting bats, and marine mammals. Implementation of Mitigation Measures BIO-1 through BIO-3 would reduce the Project's potentially significant direct and indirect impacts to these sensitive wildlife species to a less than significant level. Mitigation Measure BIO-1, Monitoring and Protection/Avoidance Measures, requires monitoring by a qualified biologist responsible for conducting pre-construction nesting bird surveys; overseeing mitigation for noise and light impacts during construction; implementing protection and avoidance measures for foraging seabirds, shorebirds, and marine mammals in the shoreline repair and replacement area; clearing roosting bats from trees and structures prior to construction activities; providing a worker education program; and completing monitoring and reporting requirements. Mitigation Measure BIO-2, In-Water Construction Measures, requires in-water construction measures, including vessel operator training to avoid impacts on eelgrass and wildlife species from water quality and turbidity; avoidance of eelgrass; and the deployment of a turbidity curtain prior to the start of the in-water activities to reduce water quality impacts and to create a physical barrier between construction activities and foraging wildlife species. Mitigation Measure BIO-3, Eelgrass Mitigation and Monitoring in Compliance with the California Eelgrass Mitigation Policy, would require compliance with the California Eelgrass Mitigation Policy (CEMP), including pre- and post-construction eelgrass surveys for potential in-water construction activities associated with

the shoreline repair and replacement. Mitigation Measure BIO-4, Wildlife-Safe Building, Barrier Netting System, and Lighting Design Guidelines and Monitoring Performance Plan, requires the Project to incorporate wildlife-safe building practices, installing net marking devices to increase the visibility of the barrier netting system, incorporating lighting features with the lowest possible color temperature and directed downward and shielded away from the waterfront into the Project design, and developing and implementing a performance monitoring and adaptive management plan, including a bird entanglement response procedure. Significant impacts to sensitive eelgrass beds could occur during shoreline repair and replacement in the event a barge is used. Implementation of Mitigation Measures BIO-2 and BIO-3 would mitigate potential impacts to sensitive eelgrass beds to below a level of significance. Mitigation Measure BIO-2 requires in-water construction measures, including vessel operator training to avoid impacts on eelgrass beds from water quality and turbidity; avoidance of eelgrass beds; and the deployment of a turbidity curtain prior to the start of the in-water activities to reduce water quality impacts and to create a physical barrier around construction activities. Mitigation Measure BIO-3 would require compliance with the CEMP, including pre- and post-construction eelgrass surveys for potential in-water construction activities associated with the shoreline repair and replacement. The Project could result in potential direct and indirect impacts to jurisdictional aquatic resources. Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-5 would mitigate potential impacts to jurisdictional aquatic resources to below a level of significance. Mitigation Measure BIO-2 requires in-water construction measures, including vessel operator training to avoid impacts on eelgrass beds from water quality; avoidance of eelgrass beds; and the deployment of a turbidity curtain prior to the start of the in-water activities to reduce water quality impacts and to create a physical barrier around construction activities. Mitigation Measure BIO-3 would require compliance with the CEMP, including pre- and post-construction eelgrass surveys for potential in-water construction activities associated with the shoreline repair and replacement. Mitigation Measure BIO-5, Jurisdictional Aquatic Resources Permitting, would reduce direct temporary impacts to jurisdictional aquatic resources through obtaining regulatory agency permits.

The Project could result in direct impacts to wildlife corridors for migratory birds in the form of mortality from collisions with the new buildings and structures, netting, including new sources of lighting. Implementation of Mitigation Measure BIO-4 would reduce direct impacts to wildlife corridors for migratory birds to a less than significant level by requiring the Project to incorporate wildlife-safe building, barrier netting system, and lighting features into its design to reduce mortality of migratory species from increased lighting and bird strikes on the new buildings and barrier netting system, and implement a performance monitoring plan.

The Project could result in impacts regarding consistency with local policies or ordinances. Implementation of Mitigation Measures BIO-1 through BIO-5 would mitigate direct and indirect impacts to biological resources, specifically seabirds, shorebirds, foraging and nesting birds and raptors, roosting bats, marine mammals, sea turtles, and jurisdictional aquatic resources, to below a level of significance, thereby resulting in the Project's consistency with local policies or ordinances.

Project compliance with the Port Master Plan (PMP), PMP Update (PMPU), and San Diego Bay Integrated Natural Resources Management Plan (INRMP), as well as the state's Construction General Permit (CGP) and the National Pollutant Discharge Elimination System (NPDES) regulations, would reduce other indirect impacts to sensitive wildlife species, sensitive vegetation communities, jurisdictional aquatic resources, and wildlife corridors and habitat linkages to a less than significant level. Consistency with federal, state, and local regulations and the application of the proposed mitigation measures would ensure that the Project is consistent with the PMP, PMPU, and INRMP and would not result in cumulatively considerable impacts to biological resources.

Section 1 Introduction

Harris & Associates (Harris) was contracted by the lead agency, the San Diego Unified Port District (District), and Topgolf, USA (Topgolf) (Project applicant), to conduct desktop literature reviews, a reconnaissance-level biological survey, and avian use surveys in support of the proposed East Harbor Island Redevelopment/Topgolf and Waterfront Park Project (Project) in the City of San Diego (City), California.

1.1 Purpose of the Report

The purpose of this Biological Resources Technical Report (BRTR) is to document the biological resources present in the Project area and within a 100-foot survey buffer (together referred to as the "survey area"); identify potential impacts to sensitive biological resources; and recommend avoidance, minimization, and/or mitigation measures consistent with federal, state, and local rules and regulations.

The term "biological resources" refers to plant species, wildlife species, and vegetation communities in and adjacent to the Project area. For the purposes of this BRTR, 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), National Marine Fisheries Service (NMFS), 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.

1.2 Project Location

The Project is on East Harbor Island (EHI) within the jurisdiction of the District in the City of San Diego, California (Appendix A, Figures; Figure 1, Regional Location). The Project area includes approximately 38 acres of primarily developed urban land and a small portion of San Diego Bay around the southern and eastern edges. The Project area is generally bounded to the north by North Harbor Drive, to the west by Harbor Island Drive, to the south by Liberator Way and the Harbor Island East Basin portion of San Diego Bay, and to the east by the Convair Lagoon portion of San Diego Bay (Figure 2, Survey Area). The Project area is on the U.S. Geological Survey (USGS) 7.5-minute series, Point Loma Quadrangle (Figure 3, USGS Topographic Map). The geographic coordinates for the

northern and southern portions of the survey area are approximately 32.734105°N, −117.192059°W and 32.727282°N, −117.190858°W, respectively.

The Project area is within the Harbor Island Planning District 2 of the Port Master Plan (PMP). Further, the Project area is in the East Basin Industrial subarea. The existing land use designations for the Project area are Industrial Business Park, Open Space, and Harbor Services (PMP Figure 9, Planning District 2 Precise Plan). The southern edge of the Project is included in the San Diego Bay Integrated Natural Resources Management Plan (INRMP) (2013a).

1.3 Project Description

The Project includes redevelopment of approximately 22.4 acres on EHI. The Project applicant (Topgolf), the rental car companies (Avis Rent A Car System, LLC [Avis], Enterprise Mobility [Enterprise; operated by National Car Rental], and The Hertz Corporation [Hertz]), and the District are responsible for Project components. The rental car companies would demolish the existing rental car facilities and bring the property back to its pre-developed condition. Topgolf would redevelop approximately 9.8 acres for the Topgolf visitor-serving attraction. The proposed three-level building would have a maximum height of approximately 46 feet and would include 108 hitting bays. Hitting bays would face east toward a 4.5-acre artificial turf outfield enclosed by a polyester barrier netting system suspended on poles ranging between 90 feet near the building and crest to 170 feet in height near the outfield. The barrier system would be composed of black 1-inch mesh polyester netting. The netting would be attached to light gray poles using braided polyester twine. Gamechanger lights would be mounted inside the building and point toward the outfield to light up the target areas, only in the evening.

The District is proposing to change land use and water, realign Liberator Way, and develop a new waterfront park and promenade including approximately 10.1 acres of new recreation open space areas that provide enhanced waterfront access along with shoreline improvements. These improvements include a waterside promenade that would offer public coastal access along the waterfront. Other recreational features could include a pavilion, health and wellness features, fixed and moveable seating, moveable kiosks or carts, and a restroom. Landscaping would include drought-tolerant, native plants or non-invasive plants adapted to Southern California where feasible.

A section of the shoreline in the southeastern corner of the Project area that is partially within the water of San Diego Bay would be rehabilitated with riprap or other habitat-friendly shoreline structure matching the surrounding shoreline of San Diego Bay, as part of the re-stabilization of the shoreline. The existing San Diego Harbor Police headquarters on the western side of the Project area would remain in place.

Section 2 Environmental Setting

The following is a description of the existing conditions in the Project area and within a 100-foot survey buffer (together referred to as the "survey area").

2.1 Land Use

The survey area primarily consists of developed land in the City, specifically on Harbor Island, immediately north of San Diego Bay. The developed portions of the survey area are currently occupied by the San Diego Harbor Police headquarters; Avis, Enterprise, and Hertz rental car companies; and the San Diego International Airport (SDIA) temporary construction staging facilities. San Diego Bay and the concrete- and riprap-armored shoreline occur along the southern and southeastern edges of the Project area. Existing structures in the survey area include several one- and two-story buildings, various shade structures, parking lots, fencing, and the paved Bayshore Bikeway/Embarcadero that runs east to west along the northern edge of the Project area. The survey area is generally devoid of natural vegetation communities and consists mainly of landscaped vegetation surrounding buildings and roadways.

Harbor Island has been developed since at least 1953, with most of the development occurring in the 1960s. Most of the survey area occurs on portions of Harbor Island that existed naturally; however, while these areas were being developed, just south of the survey area, a peninsula was created with dredged harbor material in 1961 (Historic Aerials 2025; Google Earth 2025). The survey area is surrounded by dense urban development to the north, east, and west, including the SDIA to the north; hotels, parks, restaurants, tourist attractions, and military developments to the east and west; and San Diego Bay, other portions of Harbor Island, marinas, and Coronado Island to the south (Figure 2).

2.2 Topography and Soils

The survey area is in the County, which is within three geographic regions: Coastal Plain, Peninsular Ranges, and Salton Trough (Desert Basin) (County of San Diego 2011). The survey area is in the Coastal Plain and west of the Peninsular Ranges and Desert Basin. The elevation in the survey area ranges from sea level to approximately 14 feet above mean sea level (amsl). The topographic lines on Figure 3 represent the survey area elevation ranges. Most of the survey area is relatively flat with no topographic contours except for a gentle decreasing gradient south to San Diego Bay (Figures 2 and 3).

According to the U.S. Department of Agriculture, the Project area includes Urban Land and Made Land with no agricultural use and low to moderate erosion potential (USDA 2024; Figure 4, Soils). According to the U.S. Department of Agriculture (USDA), the

Project area includes Urban Land and Made Land with no agricultural use and low to moderate erosion potential (Ninyo and Moore 2024). Urban Land occurs throughout most of the survey area. Urban Land refers to land with soils in areas of high population density in a largely built environment. These soils can be significantly changed human-transported materials, human-altered materials, or minimally altered/intact native soils. Urban soils exhibit a range of conditions and properties that may include impervious surfaces such as pavement or buildings. The remaining survey area not defined by a soil type is water within San Diego Bay, which occurs along the southern and southeastern edges of the survey area. Made land occurs in the western portion of the survey area, resulting from dredged harbor materials used to create the Harbor Island peninsula (Figure 4) (USDA 2019). Made land refers to land that has been artificially created or reclaimed through filling or dredging and has a variable soil profile.

2.3 Hydrology

The survey area is in the Pueblo Watershed within the San Diego Bay Watershed Management Area (Figure 5, Hydrology) (USGS 2025; Project Clean Water 2025). The Pueblo Watershed encompasses approximately 38,000 acres in the County and is the smallest of the three hydrologic units that discharge to San Diego Bay. The watershed consists of mostly developed areas and is the most densely populated watershed in the San Diego Bay Watershed Management Area. The watershed falls within the jurisdictions of the District; County; and Cities of San Diego, La Mesa, Lemon Grove, and National City and can be further broken down into three sub-watersheds, or hydrologic areas, that include Point Loma (908.1), San Diego Mesa (908.2), and National City (908.3). The survey area is in the San Diego Mesa Hydrologic Area (Hydrologic Unit Code 908.2.1). The watershed consists of a group of small local creeks and pipe conveyances (concrete-lined drainages) that drain directly into San Diego Bay rather than having a central stream system like other watersheds in the County, and includes portions of the Point Loma Ecological Reserve and Chollas Lake (a human-made recreational fishing lake). Within the Pueblo Watershed, only the San Diego Bay is defined as a traditional navigable water by the U.S. Army Corps of Engineers (USACE) (USACE 2025), which is adjacent to and within the edges of the survey area. San Diego Bay is also identified as an impaired waterbody under Section 303(d) of the Clean Water Act (CWA) for toxins and metals, including polychlorinated biphenyls, polycyclic aromatic hydrocarbons, and mercury, with total maximum daily load requirements established (SWRCB 2018).

The National Wetlands Inventory (NWI) and USGS National Hydrography Dataset (NHD) results identify one aquatic feature, San Diego Bay, as estuarine and marine deepwater within the southern and southeastern edges of the survey area (Figure 5) (USFWS 2025a; USGS 2025). The NWI and NHD results documented other aquatic features within1 mile of

the survey area, including estuarine and marine wetland within San Diego Bay to the west and several riverine features in the urban canyons to the northeast and east (Figure 5).

2.4 Climate

On a regional level, the County of San Diego 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 survey area is generally in the South Coast Ranges subregion of the California Floristic Province (Jepson Flora Project 2025). Generalized climate in the region is regarded as dry, subhumid mesothermal, with warm and dry summers and cold and moist winters, which pushes the growing season to the wet months of the year (late winter to early spring). Annual vegetation often goes dormant (senescent) during the later summer months until initial rainfall starts in the fall. The rainy season typically lasts from late October through April.

The closest weather station to the survey area is the SDIA approximately 0.2 mile north of the survey area. Between 2004 and 2024, the average maximum temperature was 71 degrees Fahrenheit (°F), and the average minimum temperature was 58.5°F. The average total annual precipitation during this time period was 9.34 inches. In 2023, total rainfall was 14.43 inches, approximately 8.53 inches more than the total for 2022 (NRCS 2025). As of February 2024, when the biological reconnaissance survey was conducted, total precipitation in the area was 4.47 inches, approximately 2.45 inches less than the total for February 2023.

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Section 3 Regulatory Framework

This section summarizes federal, state, and local regulations, plans, policies, and programs that provide protection and management of sensitive biological resources applicable to the Project. As a condition of approval, the Project would be required to be in compliance with all federal, state, and local regulations.

3.1 Federal

Coastal Zone Management Act of 1972 (16 USC 1451–1464, 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 CCC. The Coastal Zone Management Act ensures that development projects in coastal areas are designed and sited in a manner that is consistent with Coastal Zone land uses, maximizes public health and safety, and ensures that biological resources (e.g., wetlands, estuaries, beaches, and fish and wildlife and their habitat) within the Coastal Zone are protected. The CCC enforces the Coastal Zone Management Act by certifying that any proposed project is consistent with the CCA of 1976 (as amended). The enforceable policies of the Coastal Zone Management Act are found in Chapter 3 of the California Coastal Act, which is discussed further in the CCA section under state regulations.

CWA of 1972, Section 401 and 404 (33 CFR 328.3[a]). The Federal Water Pollution Control Act Amendments of 1972, commonly known as the CWA (33 USC 1251–1376), as amended by the Water Quality Act of 1987, is the major federal legislation governing water quality. The purpose of the CWA is to "restore and maintain the chemical, physical, and biological integrity of the nation's waters.".

On August 29, 2023, the U.S. Environmental Protection Agency (USEPA) and the USACE issued a final rule to amend the Final Revised Definition of Waters of the U.S. The 2023 final rule became effective on September 8, 2023. Under the 2023 final rule:

(a) Waters of the U.S. are defined as:

1. Waters which are:
    i. Currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
    ii. The territorial seas; or
    iii. Interstate waters;

2. Impoundments of waters otherwise defined as waters of the United States under this definition, other than impoundments of waters identified under (a)(5) of this section;
3. Tributaries of waters identified in (a)(1) or (2) of this section that are relatively permanent, standing or continuously flowing bodies of water;
4. Wetlands adjacent to the following waters:
    i. Waters identified in (a)(1) of this section; or
    ii. Relatively permanent, standing or continuously flowing bodies of water identified in (a)(2) or (a)(3) of this section and with a continuous surface connection to those waters;
5. Intrastate lakes and ponds not identified in (a)(1) through (4) of this section that are relatively permanent, standing or continuously flowing bodies of water with a continuous surface connection to the waters identified in (a)(1) or (a)(3) of this section.

On November 17, 2025, the EPA and the USACE announced proposed revisions to the definition of "waters of the United States" under the 2023 final rule, provided above, which defines the scope of federal jurisdiction over Clean Water Act permitting. The proposed changes focused on relatively permanent, standing or continuously flowing bodies of water—such as streams, oceans, rivers, and lakes—and wetlands that are connected and indistinguishable from such waterbodies. The public comment period closed on January 5, 2026. The USEPA and USACE have not issued the final rule updating the definition of waters of the United States as of the date of this BRTR.

Section 401 requires an applicant for any federal permit that proposes an activity that may result in a discharge into WOTUS to obtain certification from the state that the discharge will comply with other provisions of the CWA. Certification is provided by the respective Regional Water Quality Control Board (RWQCB). A Section 401 certification from the San Diego RWQCB would be required for future projects if a Section 404 permit and/or Rivers and Harbor Act (Section 10) permit are required.

Section 404 provides for USACE issuance of permits for discharge of dredged or fill material into WOTUS. Permits typically include conditions to minimize impacts on water quality. Common conditions include (1) USACE review and approval of sediment quality analysis before dredging; (2) a detailed pre- and post-construction monitoring plan that includes disposal site monitoring; and (3) requiring compensation for loss of WOTUS.

Federal Endangered Species Act (FESA) of 1973, Sections 4, 7, 9 and 10 (16 USC 1531 et seq.; 50 CFR Part 402). This act prohibits the "take" (i.e., harm, harass, or kill individuals or destroy associated habitat, as defined in Section 9 of FESA) of species federally listed as threatened or endangered. Take incidental to otherwise lawful activities can be authorized by the USFWS through a permit under FESA Sections 4(d), 7, or 10(a). Take is defined in Section 3 of the act as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or

collect, or to attempt to engage in any such conduct." The U.S. Supreme Court ruled in 1995 that the term "harm" includes destruction or modification of habitat. Section 4(d) of the Act issues species-specific rules to establish appropriate protective regulations for threatened species. Sections 7 and 10 of the Act may authorize "incidental take" for an otherwise lawful activity (a development project, for example) if it is determined that the activity would not jeopardize survival or recovery of the species. Section 7 applies to projects where a federally listed species is present and there is a federal nexus, such as a federal CWA Section 404 permit (e.g., impacts on WOTUS) that is required. Section 7 requires consultation between the federal action agency and USFWS or NMFS if incidental take is anticipated. Section 10, requiring an incidental take permit and development of a Habitat Conservation Plan, applies when a federally listed species is present, but there is no federal nexus.

Magnuson-Stevens Fishery Conservation and Management Act (MSA) of 1976 (PL 94-265). This act is the primary law that governs marine fisheries management in federal waters, including protecting EFH, such as eelgrass beds, which is used by fish to spawn, breed, and grow to maturity. First passed in 1976, the act fosters the long-term biological and economic sustainability of marine fisheries. The MSA requires federal agencies to consult with the National Oceanographic and Atmospheric Administration's (NOAA) NMFS on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH. The EFH Guidelines (50 CFR 600.05–600.930) outline the process for federal agencies, NMFS, and the Fishery Management Councils to satisfy the EFH consultation requirement under Section 305(b[2]-[4]) of the MSA. As part of the EFH Consultation process, the guidelines require federal action agencies to prepare a written EFH Assessment describing the effects of that action on EFH (50 CFR 600.920[e][1]). EFH assessments must include (1) a description of the proposed action, (2) an analysis of effects, including cumulative effects, (3) the federal agency's views regarding the effects of the action on EFH, and (4) proposed mitigation, if applicable.

Marine Mammal Protection Act (MMPA) of 1972 (16 USC 1361 et. seq.). All marine mammals are afforded protection under this act. With limited exception, the act makes it illegal to "take" a marine mammal without authorization granted by the NMFS. "Take" is defined in Title 16, Section 1362(13), of the U.S. Code 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 NMFS. Under the 1994 Amendments to the MMPA, harassment is statutorily defined in Title 16, Section 1362(18)(A), of the U.S. Code as any act of pursuit, torment, or annoyance that has the potential to:

- Injure a marine mammal or marine mammal stock in the wild (Level A harassment); or
- Disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including but not limited to migration, breathing, nursing, breeding, feeding, or sheltering but that does not have the potential to injure a marine mammal or marine mammal stock in the wild (Level B harassment).

Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703–712; 50 CFR 10). This act prohibits the direct or indirect take of migratory birds and their active nests unless permitted. The MBTA was enacted in 1918 to prohibit the killing or transport of native migratory birds, or any part, nest, or egg of any such bird, unless allowed by another regulation adopted in accordance with the MBTA. A list of migratory bird species that are protected by the MBTA is maintained by USFWS, which regulates most aspects of the taking, possession, transportation, sale, purchase, barter, exportation, and importation of migratory birds. Under the MBTA, "take" means to kill, directly harm, or destroy individuals, eggs, or nests, or to otherwise cause failure of an ongoing nesting effort. USFWS does not issue permits for "incidental take" of migratory birds that results from otherwise lawful activities such as construction of development projects.

Rivers and Harbors Act of 1899, Section 408. The Section 408 program allows another party, such as a local government, company, or individual, to alter a USACE Civil Works Project. The Section 408 program verifies that changes to authorized USACE Civil Works Projects will not be injurious to the public interest and will not impair the usefulness of the Project.

Rivers and Harbors Act of 1899, Section10. Section 10 of the act requires that permits be obtained from the USACE in navigable WOTUS for all structures, such as riprap. The USACE grants or denies Section 10 permits based on the effects on navigation. Most projects covered under this act are also covered under CWA Section 404. The San Diego Bay and coastal waters within the proposed Project area are considered traditional navigable water regulated under Section 10 of the Rivers and Harbors Act; therefore, any future work activities proposed within or over any navigable waters would require Section 10 compliance and coordination with USACE.

California Eelgrass Mitigation Policy

The NMFS is an office of the NOAA and is responsible for the stewardship of the nation's ocean resources and their habitat. NMFS developed the California Eelgrass Mitigation Policy (CEMP) to establish and support a goal of protecting eelgrass and its habitat functions (NMFS 2014). The CEMP includes guidance on defining eelgrass habitat, surveying, mapping, assessing impacts, avoiding and minimizing impacts on eelgrass,

and mitigation options. Avoidance and minimization measures included within the CEMP relate to turbidity, shading, circulation, and nutrient and sediment loading impacts. Mitigation options include comprehensive management plans, in-kind mitigation, mitigation banks and in-lieu-fee programs, and out-of-kind mitigation. The NMFS has provided this policy to other state and federal agencies, including CDFW, as guidance for handling Project-related impacts on eelgrass habitat.

Pacific Coast Groundfish Fishery Management Plan

The Pacific Coast Groundfish Fishery Management Plan (FMP) was first implemented in 1982 and describes how the Pacific Fishery Management Council develops decisions for management of the groundfish fishery in federal waters off the coasts of California, Oregon, and the outer coast of Washington, but does not include inland waters (NMFS 2023). The council has amended the FMP numerous times, most recently in 2024, in response to changes in the fishery, reauthorizations of the Magnuson-Stevens Act, and litigation.

3.2 State

Birds of Prey Protection Provision (CFGC Section 3503.5). This provision prohibits the taking of birds of prey (Order Falconiformes and Strigiformes), including their nests and eggs.

California Endangered Species Act (CESA) of 1970 (CFGC Section 2050 et seq.). This act prohibits any activities that would jeopardize or take a species designated as threatened or endangered by the state. CESA establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The act mandates that state agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. For projects that affect both a state and federally listed species, compliance with the FESA will satisfy CESA if CDFW determines that the federal incidental take authorization is consistent with CESA under CFGC Section 2080.1. For projects that would result in the take of a state-only listed species, the project proponent must apply for an incidental take permit under Section 2081(b).

California Coastal Act (CCA) of 1976 and the 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. The CCA requires that the boundaries of ports located within the Coastal Zone including Hueneme, Long Beach, Los Angeles, and the District be established and that a PMP that carries out the provisions set forth in the act, including

Policies 30700–30721, are prepared and adopted by each port governing body. The Project area is entirely within the Coastal Zone and the District's jurisdiction and, therefore, is subject to the CCA.

CFGC 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.

California Fully Protected Wildlife Species Provision (CFGC Sections 3511, 4700, 5050, and 5515). CFGC Sections 3511, 4700, 5050, and 5515, prohibit take or possession of fully protected species. Incidental take permits cannot be issued for fully protected species. In very specific circumstance, incidental take of fully protected species may be authorized under an approved Natural Communities Conservation Plan (NCCP).

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

Marine Life Management Act of 1999. This act, which became law on January 1, 1999, delegated greater management authority to the California Fish and Game Commission and CDFW for the management and conservation of California's marine living resources.

Natural Community Conservation Planning Act of 1991, as amended (California Fish and Game Code, Sections 2800–2835)

The primary objective of the NCCP 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 Water Quality Control Act of 1969. The Porter-Cologne Water Quality Control Act is the California equivalent of the federal CWA. It provides for statewide coordination of water quality regulations through the establishment of the State Water Resources Control Board and nine separate RWQCBs that oversee water quality on a day-to-day basis at the regional/local level. The RWQCB regulates actions that would involve "discharging waste, or proposing to discharge waste, within any region that could affect the water of the state" (California Water Code, Section 13260[a]), pursuant to provisions of the act. Waters of the state are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]). The act is implemented by the State Water Resources Control Board and RWQCB for impacts to waters of the state. Although water quality issues related to impacts to surface waters are normally addressed during Section 401 Water

Quality Certification, should a water of the state not be a WOTUS, impacts of discharges to the waters of the state would be addressed under a CGP, state General Waste Discharge Order, or Waste Discharge Requirements, depending on the level of impact and the properties of the waterway.

Proposed projects must be analyzed to determine if they will result in discharges to waters of the state. Discharges subject to Section 404 regulation may require a Section 401 certification, and other discharges to waters of the state may require Waste Discharge Requirements.

California Green Building (CALGreen) Bird-Friendly Design Standards

Section A5.107, Bird-Friendly Building Design, applies to "a newly constructed building, or an alteration of an existing building that includes the addition or replacement of 50 percent or more of the exterior glazing." Applicable projects are required to comply with the bird-friendly building design elements and features in Sections A5.107.1 through A5.107.3 of the California Energy Code and the fire hazard severity zone regulations in Chapter 7A of the California Building Code. Bird-friendly design standards include standards regarding required elevation treatment, special conditions, and nighttime conditions. Specifically regarding nighttime conditions, Section A5.107.3 states "nighttime lighting at the top of the building, and in the interiors of all the areas visible through exterior glazing, including lobby and atrium, shall be controlled with time-switch control devices or occupancy sensors complying with the current California Energy Code with the exception of emergency lighting required for nighttime security and aeronautical beacon lighting required by the Federal Aviation Administration."

3.3 Local

The Project area is within the jurisdictional boundaries of the District; therefore, the District has jurisdiction over the Project area and is the lead agency in preparation of the California Environmental Quality Act (CEQA) analysis for the Project.

Although the Project area is also within the City and the City's Multiple Species Conservation Program Subarea Plan, projects within the District are not subject to the requirements of the City's 2024 General Plan Update (City of San Diego 2024) or the County of San Diego's Multiple Species Conservation Program (County of San Diego 1998).[1] Further, the District is not an enrolled agency in California's NCCP Program.

The regulatory framework applicable to the Project is described in the following sections.

[1] The County of San Diego Multiple Species Conservation Program is 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).

3.3.1 Port Master Plan

The PMP sets a comprehensive vision for the District. As trustee for these public lands, the Board of Port Commissioners and District staff manage a diverse array of activities within a dynamic region. District maritime and water-dependent uses stretch along the entire water's edge, highlighting San Diego's cherished waterfront character. The PMP governs the use, design, and improvement of these public trust lands. Since the PMP's original adoption in 1964, it has demonstrated continued progress toward the District's legislative responsibilities to protect and promote coastal-dependent uses, protect the environment, and provide and ensure coastal access around San Diego Bay. The PMP establishes specific goals, objectives, policies, and standards to direct future development, facilitate a diverse range of uses and activities, and provide a broad range of proposed public improvements. The PMP's goals, objectives, policies, and standards were developed in accordance with the CCA, Public Trust Doctrine, and San Diego Unified Port District Act, which are the foundation for the plan's legislative framework (District 2020, 2024).

3.3.1.1 Existing Port Master Plan

The following goal in the existing PMP is applicable to biological resources with respect to the Project (District 2020):

- **Goal VIII.** The port district will enhance and maintain the bay and tidelands as an attractive physical and biological entity.
  - Each activity, development and construction should be designed to best facilitate its particular function, which function should be integrated with and related to the site and surroundings of that activity.
  - Views should be enhanced through view corridors, the preservation of panoramas, accentuation of vistas, and shielding of the incongruous and inconsistent.
  - Establish guidelines and standards facilitating the retention and development of an aesthetically pleasing tideland environment free of noxious odors, excessive noise, and hazards to the health and welfare of the people of California.
  - Establish and foster an artworks program to promote, enhance, and enliven the waterfront experience through the public and private placement of works of art.
- **Goal XI.** The Port District will protect, preserve, and enhance natural resources, including natural plant and animal life in the bay as a desirable amenity and ecological necessity, and a valuable and usable resource.

- Promote and advance public knowledge of natural resources through environmental educational materials.
- Identify existing and potential assets.
- Keep appraised of the growing body of knowledge on ecological balance and interrelationships.
- Encourage research, pilot programs, and development in aquaculture as long as it is consistent with this goal.
- Administer the natural resources so that impacts upon natural resource values remain compatible with the preservation requirements of the public trust.

3.3.1.2 Port Master Plan Update

The following goals in the Ecology Element of the PMPU are applicable to biological resources with respect to the Project (District 2024):

- **ECO Goal 1.** Tidelands that support vibrant and healthy ecosystems.
  - **ECO Objective 1.1:** Enhance, conserve, restore, and maintain the biodiversity in Tideland areas
- **ECO Goal 2.** Clean, healthy waters and landside areas.
  - **ECO Objective: 2.1:** Clean, healthy waters and landside areas
  - **ECO Objective: 2.3:** Prevent pollution from entering the Bay

3.3.2 San Diego Bay Integrated Natural Resources Management Plan

The INRMP sets forth a long-term vision and strategy sponsored by two of the major managers of the San Diego Bay: the U.S. Navy and the District (District 2013a). Its intent is to provide direction for the good stewardship that natural resources require while supporting the ability of the U.S. Navy and District to achieve their missions and continue functioning within San Diego Bay. Other wildlife and resource agencies, including the USFWS, NMFS, and CDFW, are also signatories to the INRMP. The ecosystem approach reflected in the INRMP looks at the interconnections among the natural resources and human uses of the bay and across ownership and jurisdictional boundaries. San Diego Bay is viewed as an ecosystem rather than a collection of individual species, sites, or projects. This is a collaborative strategy for managing San Diego Bay's natural resources and a primary means by which the U.S. Navy and the District jointly plan natural resources management activities in San Diego Bay with their government and non-government partners. The INRMP identifies the following guiding principles for ecosystem management for San Diego Bay (District 2013a):

- Maintain and improve the sustainability and native biodiversity of ecosystems
- Administer with consideration of ecological units and time frames

- Support sustainable human activities
- Develop priorities and reconcile conflicts
- Develop coordinated approaches to ecosystem health through partnerships
- Rely on the best science and data available
- Use benchmarks to monitor and evaluate outcomes
- Apply adaptive management

San Diego Unified Port District Jurisdictional Runoff Management Program

Under the Municipal Stormwater Permit, each jurisdiction is required to have a Jurisdictional Runoff Management Program (JRMP), which includes a component that addresses issues related to construction activities and a component that addresses issues related to existing development, and which requires co-permittees to establish adequate enforcement authority, develop education/outreach, and conduct monitoring. In addition, each co-permittee prepares and submits an annual report that describes program implementation and strategies to reduce the discharge of pollutants of concern to the municipal separate storm sewer system and receiving waters to the maximum extent practicable.

The District's JRMP has been developed to meet the conditions of the Municipal Stormwater Permit and to assist the District in achieving the goals identified in the Water Quality Improvement Plan. District-specific Water Quality Improvement Plan-based strategies have been incorporated into the JRMP. The JRMP's focus is on controlling stormwater discharges to the municipal separate storm sewer system, with the overall goal of achieving improvements in receiving water quality. The District has developed a list of BMPs that are applicable to all people, activities, and operations occurring on District tidelands, and the JRMP uses District-specific jurisdictional activities and watershed-based strategies. Enforcement of the JRMP helps to prevent stormwater pollutants from entering local storm drains and, ultimately, the San Diego Bay.

Moreover, the Municipal Stormwater Permit (Provision E.4) requires the District to implement a construction management program in accordance with the strategies in the San Diego Bay Watershed Water Quality Improvement Plan in addition to core permit requirements. The core permit requirements include a project approval process that ensures appropriate BMPs are attached to conditions of approval for construction projects as well as ongoing construction site inventory updates and tracking and inspection. In addition, the District is required to establish minimum BMPs from the following categories: Project Planning, Non-Stormwater Management, Good Housekeeping/Waste Management, Erosion Control, Sediment Control, and Run-On and Run-Off Control.

City of San Diego Regulations

City of San Diego Municipal Code

The City's Grading Ordinance (SDMC Section 142.0101 et seq.) incorporates a number of requirements related to hydrology and water quality, including BMPs necessary to control stormwater pollution from sources such as erosion/sedimentation and construction materials during project construction and operation. Specifically, these include elements related to slope design, erosion/sediment control, revegetation requirements, and material handling/control.

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Section 4 Methods

Prior to conducting the biological reconnaissance and avian use surveys, sensitive biological resources with potential to occur in the survey area were identified through a review of existing maps, literature, and other biological studies conducted in the area, and sensitive species occurrence databases.

4.1 Literature and Database Review

The following documents and databases were reviewed before the biological resources survey was performed:

- Calflora Database (Calflora 2025)
- CDFW Biogeographic Information and Observation System (CDFW 2025a)
- CDFW California Natural Diversity Database (CDFW 2025b)
- CNPS Rare Plant Program Inventory of Rare Plants (CNPS 2025)
- Draft Biological Report for the Designation of Marine Critical Habitat for Six Distinct Population Segments of Green Turtle, *Chelonia mydas* (NOAA 2023)
- INRMP (District 2013a)
- Progress Report: Evaluation of Fine Scale Movements of East Pacific Green Sea Turtles in San Diego Bay (Naval Facilities Engineering Command Southwest 2016)
- San Diego Bay Avian Species Surveys 2016–2017 (District 2018)
- San Diego Bay 2023 Eelgrass Inventory (U.S. Navy Region Southwest Naval Facilities Engineering Systems Command 2024)
- The Status of the California Least Tern at San Diego Unified Port District Properties in 2019 (District 2019b)
- San Diego County Bird Atlas (Unitt 2004)
- SanGIS SanBIOS database (SanGIS 2025)
- U.S. Department of Agriculture Soil Survey (USDA 2019)
- USFWS NWI Wetlands Mapper (USFWS 2025a)
- USFWS Information for Planning and Consultation (USFWS 2025b)
- USGS NHD (USGS 2025)

4.2 General Biological Surveys

Harris biologists conducted a general biological reconnaissance survey on February 13, 2024. A 100-foot buffer around the Project area boundary was used for the 2024 biological reconnaissance survey. The survey was conducted by walking meandering transects throughout the survey area and mapping vegetation communities, marine habitat and

land cover types; documenting plant and wildlife species; noting suitable habitat; and evaluating the potential for occurrence of sensitive, rare, threatened, and endangered plant and wildlife species, as well as suitable roosting habitat for bats (Appendix B, Plant and Wildlife Species Observed). Vegetation mapping was recorded in the field using the ArcGIS Collector application with an aerial image of the survey area. Biologists used binoculars to visually identify wildlife species and also listened for vocalizations. Avian use surveys for the Project were conducted in 2024; refer to Section 4.3, Avian Use Surveys, for additional details. No focused protocol surveys or rare plant surveys were conducted during this survey effort.

A discussion of the 2024 surveys conducted in the survey area is provided in the following sections.

4.2.1 Vegetation and Land Cover Type Mapping

Harris biologists mapped vegetation communities and land cover types observed in the survey area using geographic information system (GIS) aerial maps connected to an iSXBlue II Global Positioning System (GPS) receiver for maximum accuracy. The vegetation communities and land cover types were documented by walking along meandering transects through the survey area (where accessible). 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 the 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).

No formal aquatic resources delineation or in-water marine surveys were conducted as part of the 2024 biological reconnaissance survey effort. Instead, where the survey area included portions of San Diego Bay, these habitats were mapped in accordance with the INRMP Map 2-13, Salt Marsh and Other Habitats Adjacent to San Diego Bay (District 2013a), and the San Diego Bay 2023 Eelgrass Inventory (U.S. Navy Region Southwest Naval Facilities Engineering Systems Command 2024).

4.2.2 Plant and Wildlife Species Observations

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 wildlife follow Society for the Study of Amphibians and Reptiles for reptiles and amphibians (SSAR 2025), American Ornithological Society for birds (Chesser et al.

2023), and San Diego Natural History Museum Mammal Atlas for mammals (San Diego Natural History Museum 2017).

Plant and wildlife species observed during the survey were recorded in field notebooks, and sensitive species locations were recorded in a GIS-enabled ArcGIS Collector application. Complete lists of observed plant and wildlife species are provided in Appendix B.

In addition to species detected during the survey, the survey area was assessed for the potential of sensitive plant and wildlife species to occur on site, the results of which are 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 that could not 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 Baldwin et al. (2012). Non-native invasive plant species were identified using California Invasive Plant Council's California Invasive Plant Inventory rating criteria (Cal-IPC 2025).

4.3 Avian Use Surveys

Three sets of avian use surveys were conducted over the course of 2024, beginning in January and ending in October. The three survey sets were conducted during the winter season (surveyed in January and February 2024), summer breeding season (surveyed in June and July 2024), and fall migration (surveyed in October 2024). Each survey set consisted of three surveys: two surveys during ebbing tide and one survey during cresting tide. Ebbing tide surveys were conducted within 4 hours preceding low tide, while cresting tide surveys were conducted near the crest of the tide. The surveys occurred within the Project area, plus a 100-foot buffer where feasible ("survey area"). Surveys consisted of a pair of qualified biologists, with one surveyor acting as the primary surveyor who continuously scanned the survey area, identifying species and numbers of individuals, while the secondary observer focused on data collection. Surveyors recorded each species observed and the number of individuals passing over or through the survey area, while also noting incidental birds and other species within the survey area.

In addition to the tide surveys, a point count occurred at a fixed location in the center of the survey area during each survey round. The results of the avian use surveys are presented in Section 5, Results.

4.4 Survey Limitations

No focused sensitive plant surveys, protocol sensitive wildlife surveys, or aquatic resources delineations were conducted in the survey area during the 2024 biological reconnaissance survey. 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 (survey area) seasonally or during migration only and, therefore, may not have been observed.

Some areas were inaccessible on foot (i.e., open water, fenced private property) and were not directly surveyed during the biological reconnaissance effort. These areas, particularly the surface of the open water, were only visually scanned with binoculars rather than walked or directly investigated. No in-water marine surveys were performed during the 2024 biological reconnaissance survey, and the avian use surveys are terrestrial only. Therefore, marine species, both wildlife and plants, may occur in these areas but were not able to be observed.

Section 5 Results

The results presented below include data from the 2024 biological reconnaissance and avian use surveys conducted in the survey area.

5.1 Marine Habitats and Land Cover Types

The survey area is in the South Coast Ranges subregion of the California Floristic Province (Jepson Flora Project 2025).

Three marine habitats, shallow subtidal, moderately deep subtidal, and eelgrass beds, occur in the southernmost portion of the survey area in San Diego Bay (Figure 6, Marine Habitats and Land Cover Types; District 2013a; U.S. Navy Region Southwest Naval Facilities Engineering Systems Command 2024). Two land cover types, disturbed habitat and urban/developed land, were documented in the survey area (Oberbauer et al. 2008). Nearly all plant species identified in the survey area are ornamental plants for aesthetic (landscaping) purposes or non-native invasive weed species that typically occupy severely disturbed areas. No native terrestrial vegetation communities or habitat types are in the survey area (Figure 6). Table 1, Marine Habitats and Land Cover Types in the Survey Area, shows the marine habitat and land cover types in the survey area.

Table 1. Marine Habitats and Land Cover Types in the Survey Area

Marine Habitat and Land Cover Type	Project Area (acres)[1]	Survey Buffer (acres)[1]	Survey Area (acres)[1]
Marine			
Eelgrass Beds[2]	0.02	2.00	2.02
Shallow Subtidal and Moderately Deep Subtidal[2]	0.37	5.55	5.92
Subtotal	*0.39*	*7.55*	*7.94*
Disturbed/Developed			
Disturbed Habitat (11300)	0	0.27	0.27
Urban/Developed Land (12000)	37.46	13.35	50.81
Subtotal	*37.46*	*13.62*	*51.08*
Total	**37.85**	**21.17**	**59.02**

Sources: Holland 1986; Oberbauer et al. 2008; District 2013a; U.S. Navy Region Southwest Naval Facilities Engineering Systems Command 2024.

Notes:

[1] Acreages rounded up to one-hundredth.

[2] Considered a sensitive vegetation community by the CCC and NMFS.

5.1.1 Marine Habitat

5.1.1.1 Eelgrass Beds

Eelgrass (*Zostera marina*) is a marine plant that can form beds in shallow soft-bottom substrates. Eelgrass beds are not categorized by Oberbauer et al. (2008); however, they

are a habitat type categorized by the INRMP (District 2013a) as open water that includes areas exposed by low tide and dominated by eelgrass. Eelgrass beds contribute to ecosystem functions at multiple levels as a primary and secondary producer, a habitat structuring element, a substrate for epiphytes and epifauna, and a sediment stabilizer and nutrient cycling facilitator. Eelgrass provides important foraging areas and shelter to juvenile fish and invertebrates species, food for migratory waterfowl and sea turtles, and spawning surfaces for invertebrates and fish, such as the Pacific herring (*Clupea pallasii*) (NOAA 2014). As discussed in Section 3.1, Federal, eelgrass beds are designated as EFH under the MSA. In addition, the Pacific Coast Groundfish FMP designates eelgrass beds within EFH as a Habitat Area of Particular Concern (HAPC) for managed groundfish species within those areas (NMFS 2023).

A total of approximately 2.02 acres of eelgrass beds is documented by the INRMP and the San Diego Bay 2023 Eelgrass Inventory in the survey area, with approximately 0.02 acre in the south-central edge of the Project area and the remaining 2 acres in the southern portion of the survey buffer (Figure 6) (U.S. Navy Region Southwest Naval Facilities Engineering Systems Command 2024). The eelgrass beds in the survey area occur in the shallow northern edge of San Diego Bay.

5.1.1.2 Shallow Subtidal and Moderately Deep Subtidal

Shallow subtidal habitat is continually submerged and extends from the low-tide zone between -2 and -12 feet mean lower low water. Shallow, soft bottom areas with their associated plants and wildlife were the primary subtidal habitat in San Diego Bay prior to its development. Currently, about 3,734 acres (28 percent) of San Diego Bay are shallow subtidal habitat, located predominately in South Bay, portions of south-central bay, and narrow strips along the shoreline of north and north-central bay. About 29 percent of the existing shallow waters are vegetated with eelgrass (District 2013a). Shallow waters support many thousands of resident and migratory birds every year for foraging and resting. While waterbirds are more abundant in shallow waters close to the shoreline, the groups that appear to use these areas preferentially are bottom feeding divers (District 2013a). Shallow subtidal habitat also supports assemblages of benthic invertebrates and demersal fishes (District 2013). As discussed in Section 3.1, shallow subtidal and moderately deep subtidal marine habitats that occur within San Diego Bay are designated as EFH under the MSA.

Moderately deep subtidal habitat extends from the approximate lower depth of most eelgrass beds to the approximate edge of the shipping channel between −12 and −20 feet mean lower low water. Approximately 2,219 acres (17 percent) of San Diego Bay surface area falls into the moderately deep subtidal category, primarily in south-central bay off the coast of the U.S. Naval Air Base and in inlets of north bay. The habitat

represents areas that generally have been dredged in the past but are not maintained as navigational channels. Moderately deep water is favored over other bay locations by several kinds of birds, including bottom-feeding diving birds (District 2013a). Other than the fact that these areas have been left undisturbed by dredging for longer periods than deeper water, any ecological differences between deep and moderately deep habitats have not been quantified (District 2013a).

A total of approximately 5.92 acres of shallow subtidal and moderately deep subtidal habitat is documented by the INRMP and the San Diego Bay 2023 Eelgrass Inventory in the survey area, with approximately 0.37 acre in the south-central portion of the Project area and the remaining 5.55 acres in the southern and southeastern portions of the survey buffer (Figure 6) (District 2013a; U.S. Navy Region Southwest Naval Facilities Engineering Systems Command 2024). The areas of shallow subtidal and moderately deep subtidal in the survey area occur in the northern portion of San Diego Bay.

5.1.2 Other Land Cover Types

5.1.2.1 Disturbed Habitat (11300)

Disturbed habitat consists of areas that have been physically disturbed and are no longer recognizable as a native or naturalized vegetation association but continues to retain a soil substrate (Oberbauer et al. 2008). Typically, vegetation, if present, is nearly exclusively composed of non-native plant species, such as ornamentals or ruderal exotic species, that take advantage of disturbance or show signs of past or present wildlife use that removes any capability of providing viable natural habitat for uses other than dispersal. Disturbed habitat typically supports scattered non-native species such as mustard (*Brassica* sp.), wild radish (*Raphanus sativus*), sweet fennel (*Foeniculum vulgare*), Russian thistle (*Salsola tragus*), and starthistle (*Centaurea* sp.).

Approximately 0.27 acre of disturbed habitat occurs in the southern portion of the survey buffer, outside the Project area (Figure 6). Disturbed habitat in the survey buffer includes bare ground with scattered non-native and invasive herb species including starthistle, telegraph weed (*Heterotheca grandiflora*), prickly lettuce (*Lactuca serriola*), bromes (*Bromus* sp.), and African fountain grass (*Pennisetum setaceum*). Piles of trash and debris were observed along the northern edge of the disturbed habitat.

5.1.2.2 Urban/Developed Land (12000)

Urban/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 volume 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).

Approximately 50.81 acres of urban/developed land occurs in the survey area, with approximately 37.46 acres comprising most of the Project area and 13.35 acres occurring in the survey buffer. In the survey area, urban/developed land includes military and commercial buildings, paved roads, and associated hardscaping and landscaping. Most of the landscaping plants include non-native trees, shrubs, grasses, and weeds, many of which are artificially irrigated. Urban/developed land is also mapped along the edges of San Diego Bay in the southern portion of the survey buffer where concrete and riprap have been installed to armor the shoreline.

5.2 Jurisdictional Aquatic Resources

As previously discussed in Section 4.2, General Biological Surveys, no formal aquatic resources delineation or in-water marine surveys were conducted as part of the 2024 biological reconnaissance survey effort. Instead, portions of the survey area that include marine habitats, including shallow subtidal, moderately deep subtidal, and eelgrass beds, in San Diego Bay are presented according to the INRMP (District 2013a) and the San Diego Bay 2023 Eelgrass Inventory mapping results (U.S. Navy Region Southwest Naval Facilities Engineering Systems Command 2024). Potentially jurisdictional aquatic resources mapped in the survey area are shown on Figure 7, Potentially Jurisdictional Aquatic Resources, and in Table 2, Potentially Jurisdictional Aquatic Resources in the Survey Area. A total of approximately 7.94 acres of potentially jurisdictional aquatic resources occur in the survey area, with approximately 0.39 acre in the south-central portion of the Project area, and the remaining 7.55 acres in the survey buffer.

The aquatic resources in the survey area would be considered jurisdictional by the USACE and RWQCB, pursuant to Sections 404 and 401 of the CWA. In addition, the aquatic resources in the survey area are within the Coastal Zone and are under the jurisdiction of the CCC pursuant to CCA Section 30121. However, only these agencies can make a final determination of jurisdictional boundaries.

Table 2. Potentially Jurisdictional Aquatic Resources in the Survey Area

Feature	Project Area (acres)	Survey Buffer (acres)	Survey Area (acres)	Potential Jurisdiction
Wetland Waters				
Eelgrass Beds	0.02	2.00	2.02	USACE/RWQCB/CCC
Non-Wetland Waters				
Shallow Subtidal and Moderately Deep Subtidal	0.37	5.55	5.92	USACE/RWQCB/CCC
Total	**0.39**	**7.55**	**7.94**	—

Notes: CCC = California Coastal Commission; RWQCB = Regional Water Quality Control Board; USACE = U.S. Army Corps of Engineers

5.3 Observed Species

5.3.1 Plant Species

Appendix B lists the vascular plant species observed in the survey area during the 2024 biological reconnaissance survey. A total of 51 plant taxa were observed in the survey area—15 (29 percent) of which were native species, and 36 (71 percent) of which were non-native species. None of the 51 plant species observed in the survey area are designated as sensitive.

5.3.2 Wildlife Species

Appendix B lists 36 wildlife species observed in the survey area during the 2024 biological reconnaissance and avian use surveys. Of the 36 wildlife species observed in the survey area, three species, California horned lark (*Eremophila alpestris actia*), Cooper's hawk (*Accipiter cooperii*), and double-crested cormorant (*Phalacrocorax auritus*), are designated as sensitive. Sensitive wildlife species observed in the survey area are described in Section 5.4. A summary of the avian use survey results is provided in the following section.

5.3.2.1 Avian Use Survey Results

During the surveys, 36 different species of birds were detected. Frequently observed species included American crow, (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), California brown pelican (*Pelecanus occidentalis californicus*), Caspian tern (*Hydroprogne caspia*), double-crested cormorant, great blue heron (*Ardea herodias*), house finch (*Haemorhous mexicanus*), rock pigeon (*Columbia livia*), and western gull (*Larus occidentalis*).

Three sensitive birds were recorded during the surveys, including California fully protected species and three CDFW watch list species, Cooper's hawk, California horned lark, and double-crested cormorant.

The highest abundance of birds occurred in the winter (420 individuals), followed by the breeding season (338 individuals), and the lowest abundance occurred in fall (293 individuals). Overall species richness was highest during the breeding season (29 species), followed closely by fall (28 species), and the lowest abundance occurred in winter (21 species).

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. Sensitive plants include those listed as threatened or endangered, proposed for listing, or candidates for listing by the USFWS and CDFW; those considered sensitive by CDFW; and/or those species included in the California Rare Plant Rank (CRPR) inventory, maintained by the CNPS. Sensitive wildlife species include those listed as threatened or endangered, proposed for listing, candidates for listing by the USFWS, CDFW, or NOAA Fisheries; those considered sensitive by CDFW; or those on the California Watch List (WL) that are not yet formally listed as threatened or endangered but are facing threats that could lead to listing.

As discussed in Section 4, Methods, avian use surveys were conducted in 2024, but no focused rare plant or protocol sensitive wildlife surveys were conducted during the 2024 biological reconnaissance survey. As previously stated, no sensitive plant species were observed in the survey area during the 2024 biological reconnaissance survey. However, four sensitive wildlife species were observed during the 2024 biological reconnaissance and avian use surveys, which are included in the list of species observed and are discussed in this section.

As described in Section 4.1, Literature and Database Review, distributions of historical sensitive species observations within 1 mile of the survey area were reviewed in preparation of this report. For the purposes of this biological resources assessment, those species that are known to occur or have some potential to occur within 1 mile of the survey area are addressed in this section. Sensitive plant species returned during CNPS querying with elevation ranges exceeding that of the survey area were excluded. The list of observed and potentially occurring sensitive plant and wildlife species is provided below in Table 3, Sensitive Plant and Wildlife Species Potential to Occur in the Survey Area, and shown on Figure 8, Sensitive Species with Potential to Occur, along with an assessment of their potential for occurrence in the survey area. Some of the sensitive species occurrences from databases that do not include spatial location data are not shown on Figure 8.

Table 3. Sensitive Plant and Wildlife Species Potential to Occur in the Survey Area

Scientific Name	Common Name	Status Federal/State/ CRPR	Habitat	Potential to Occur
Plants				
Acmispon prostratus	Nuttall's acmispon	None/None/1B.1	Blooms Mar–Jun. Occurs in coastal dunes and sandy coastal scrub at elevations up to 35 feet amsl.	*Not Expected.* No suitable habitat present. Two historical locations documented approximately 1 mile to the south of the survey area across San Diego Bay on Coronado Island (Figure 8; CDFW 2025a, 2025b; CNPS 2025; SanGIS 2025; USFWS 2025b).
Atriplex pacifica	South coast saltscale	None/None/1B.2	Blooms Mar–Oct. Occurs in coastal bluff scrub, coastal dunes and scrub, and playa habitats at elevations up to 460 feet amsl.	*Not Expected.* No suitable habitat present. One historical location from 1938 occurs approximately 1 mile east of the survey area but not within (Figure 8; CDFW 2025a, 2025b; CNPS 2025; SanGIS 2025; USFWS 2025b).
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None/None/1B.1	Blooms Jan–Aug. Occurs in (sandy) coastal bluff scrub and coastal dunes at elevations up to 330 feet amsl.	*Not Expected.* No suitable habitat present. One historical location from 1919 occurs approximately 1 mile to the south of the survey area across San Diego Bay on Coronado Island (Figure 8; CDFW 2025a, 2025b; CNPS 2025; SanGIS 2025; USFWS 2025b).
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	None/None/1B.1	Blooms Jun–Sep. Occurs in coastal bluff, chaparral, and coastal scrub habitat at elevations between 10 and 375 feet amsl.	*Not Expected.* No suitable habitat present. One historical location from 1924 occurs approximately 1 mile to the south of the survey area across San Diego Bay on Coronado Island (Figure 8; CDFW 2025a, 2025b; CNPS 2025; SanGIS 2025; USFWS 2025b).
Ferocactus viridescens	San Diego barrel cactus	None/None/2B.1	Blooms May–Jun. Occurs in rocky and sandy chaparral, coastal scrub, valley and foothill grassland habitats at elevations between 10 and 1475 feet amsl.	*Not Expected.* No suitable habitat present. One historical location from 1903 occurs approximately 1 mile northeast of the survey area but not within (Figure 8; CDFW 2025a, 2025b; CNPS 2025; SanGIS 2025; USFWS 2025b).
Frankenia palmeri	Palmer's frankenia	None/None/2B.1	Blooms May–Jul. Occurs in alkali flats, coastal dunes, coastal salt marshes, and swamps and playas at elevations up to 35 feet amsl.	*Not Expected.* No suitable habitat present. Historical location from 1974 within the region but not in the survey area (CNPS 2025).
Heterotheca sessiliflora ssp. sessiliflora	Beach goldenaster	None/None/1B.1	Blooms Mar–Dec. Occurs in coastal chaparral, dunes, and scrub at elevations up to 4,020 feet amsl.	*Not Expected.* No suitable habitat present. One historical location from 1924 occurs approximately 1 mile to the south of the survey area across San Diego Bay on Coronado Island (Figure 8; CDFW 2025a, 2025b; CNPS 2025; SanGIS 2025; USFWS 2025b).

Table 3. Sensitive Plant and Wildlife Species Potential to Occur in the Survey Area

Scientific Name	Common Name	Status Federal/State/ CRPR	Habitat	Potential to Occur
Iva hayesiana	San Diego marsh-elder	None/None/2B.2	Blooms Apr–Oct. Occurs in marshes, swamps, and playas at elevations up to 1,640 feet amsl.	*Not Expected.* No suitable habitat present. Historical location from 1980 within the region but not in the survey area (CNPS 2025).
Juncus acutus spp. *leopoldii*	Southwestern spiny rush	None/None/4.2	Blooms (Mar) May–Jun. Occurs in mesic coastal dunes, alkaline seeps, meadows, and coastal salt marshes and swamps at elevations between 10 and 2,955 feet amsl.	*Not Expected.* No suitable habitat present. Historical location from 1988 within the region but not in the survey area (CNPS 2025).
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None/1B.1	Blooms Feb–Jun. Occurs in coastal salt marshes and swamps, and saline playas and vernal pools at elevations between 5 and 4,005 feet amsl.	*Not Expected.* No suitable habitat present. Historical location from 1994 within the region but not in the survey area (CNPS 2025).
Nemacaulis denudata var. gracilis	Slender cottonheads	None/None/2B.2	Blooms Mar–May. Occurs in coastal and desert dunes and Sonoran Desert scrub at elevations up to 1,310 feet amsl.	*Not Expected.* No suitable habitat present. One historical location from 1926 occurs approximately 1 mile to the south of the survey area across San Diego Bay on Coronado Island (Figure 8; CDFW 2025a, 2025b; CNPS 2025; SanGIS 2025; USFWS 2025b).
Suaeda esteroa	Estuary seablite	None/None/1B.2	Blooms (Jan–May) Jul–Oct. Occurs in coastal salt marshes and swamps at elevations up to 15 feet amsl.	*Not Expected.* No suitable habitat present. Historical location from 1984 within the region but not in the survey area (CNPS 2025).
Wildlife				
Amphibians				
Spea hammondii	Western spadefoot	FC/SSC/–	Occurs primarily in grasslands or coastal sage scrub with vernal pools or similar shallow, temporary pools for breeding.	*Not Expected.* No suitable habitat present. Two historical locations, from 1927 and 1946, occur approximately 1 mile to the northwest and 0.5 mile to the east of the survey area but not within (Figure 8; CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).
Reptiles				
Anniella stebbinsi	Southern California legless lizard	None/SSC/–	Occurs in open grassland and scrub habitats.	*Not Expected.* No suitable habitat present. One historical location from 1976 occurs approximately 0.5 mile east of the survey area but not within (Figure 8; CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).

Table 3. Sensitive Plant and Wildlife Species Potential to Occur in the Survey Area

Scientific Name	Common Name	Status Federal/State/ CRPR	Habitat	Potential to Occur
Aspidoscelis hyperythra beldingi	Belding's orange-throated whiptail	None/WL/–	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 (*Reticulitermes* sp.).	*Not Expected.* No suitable habitat present. One historical location from 1940 occurs approximately 0.75 mile southeast of the survey area but not within (Figure 8; CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).
Chelonia mydas	Green sea turtle (East Pacific Distinct Population Segment)	FT/None/None/ None	Occurs throughout tropical and subtropical waters of the Pacific. Main nesting sites for this species are on Revillagigedo Islands off Michoacán, Mexico. Found off the coast of Baja California, Mexico, and north to San Diego Bay and La Jolla Shores, California.	*Moderate Foraging. Not Expected Nesting.* Suitable foraging habitat is present within the eelgrass beds in the southern portion of the survey area. No suitable nesting habitat is present. Resident population in south San Diego Bay, known to move through San Diego Bay (Naval Facilities Engineering Command Southwest 2016). Documented site fidelity to south San Diego Bay; activity in north San Diego Bay limited to movement out of the bay during migration (NOAA 2023).
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC/–	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.	*Not Expected.* No suitable habitat present. One historical location from 1940 occurs approximately 0.75 mile southeast of the survey area but not within (Figure 8; CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).

Table 3. Sensitive Plant and Wildlife Species Potential to Occur in the Survey Area

Scientific Name	Common Name	Status Federal/State/ CRPR	Habitat	Potential to Occur
			Birds	
Accipiter cooperii	**Cooper's hawk**	**None/WL/–**	**Occurs where stands of trees are present, including oak groves, mature riparian woodlands, and eucalyptus stands or other mature forests.**	***Present. Moderate Foraging. Moderate Nesting.* At least one adult incidentally observed flying over the survey area during three of the 2024 winter avian use surveys (Figure 9, Sensitive Species Observed). Suitable foraging habitat and large trees suitable for nesting occur throughout the survey area, but surrounding development and activity levels may reduce likelihood for both. No historical locations occur within 1 mile of the survey area (CDFW 2025a; CDFW 2025b; SanGIS 2025; USFWS 2025b).**
Athene cunicularia	Western burrowing owl	None/SSC/–	Occurs in open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. Often associated with high densities of burrowing small mammals.	*Not Expected Wintering*. *Not Expected Nesting.* No suitable foraging or nesting habitat present. Two historical locations occur approximately 0.75 mile southeast and 1 mile southwest of the survey area but not within (Figure 8; CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).
Charadrius Alexandrinus ssp. *nivosus* (nesting)	Western snowy plover	FT/SSC/–	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.	*Low Foraging. Not Expected Nesting.* Limited suitable foraging habitat along the shoreline of San Diego Bay at the edges of the survey area. No suitable nesting habitat present. Known breeding populations occur to the south on Coronado Island but not in or within 1 mile of the survey area. One historical location from 1979 occurs approximately 0.25 mile north of the survey area at the SDIA (Figure 8; CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).

Table 3. Sensitive Plant and Wildlife Species Potential to Occur in the Survey Area

Scientific Name	Common Name	Status Federal/State/ CRPR	Habitat	Potential to Occur
Eremophila alpestris actia	California horned lark	None/WL/—	Occurs in prairies, fields, airports, shores, and open ground.	***Present. Low Foraging. Low Nesting.*** One adult observed flying over the survey area during one of the 2024 winter avian use surveys (Figure 9). Suitable foraging and nesting habitat limited to disturbed habitat, but it is surrounded by development. No historical locations occur within 1 mile of the survey area (CDFW 2025a; CDFW 2025b; SanGIS 2025; USFWS 2025b).
Pelecanus occidentalis spp. ***californicus***	California brown pelican	None/-/–	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.	***Present. High Foraging. Not Expected Nesting.*** Observed during 2024 biological reconnaissance survey and a total of 13 adults observed during the 2024 avian use surveys flying along the coast and in the water in the southern survey area (Figure 9). High potential exists for it to forage in the waters of San Diego Bay within the survey area. No nesting within San Diego Bay. Nearest known nesting colony on Los Coronados Islands approximately 22 miles southwest (Unitt 2004). No historical locations occur within 1 mile of the survey area (CDFW 2025a; CDFW 2025b; SanGIS 2025; USFWS 2025b).
Phalacrocorax auritus (nesting colony)	Double-crested cormorant	None/WL/–	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 coastlines and lakes elsewhere in the U.S.	***Present. High Foraging. Not Expected Nesting.*** Observed during 2024 biological reconnaissance survey and a total of 16 adults observed during the 2024 avian use surveys foraging in the water and sunning on the shore in the southern survey area (Figure 9). High potential exists for it to forage in the waters of San Diego Bay within the survey area. Not expected to be nesting in the survey area. Nearest known nesting colony in south San Diego Bay approximately 10 miles south (Unitt 2004). No historical locations occur within 1 mile of the survey area (CDFW 2025a; CDFW 2025b; SanGIS 2025; USFWS 2025b).

Table 3. Sensitive Plant and Wildlife Species Potential to Occur in the Survey Area

Scientific Name	Common Name	Status Federal/State/ CRPR	Habitat	Potential to Occur
Sternula Antillarum ssp. *browni* (nesting colony)	California least tern	FE, FP/SE/–	Nests on open sandy dunes and flats lacking vegetation in colonies along California coastlines and in lagoons, bays, and estuaries.	*High Foraging. Not Expected Nesting.* Suitable foraging habitat in the water of San Diego Bay at the southern and eastern edges of the survey area. No suitable nesting habitat present. Established colonies at SDIA approximately 0.5 mile northeast and in southern San Diego Bay to the south of the survey area (District 2019b; Unitt 2004). Documented in San Diego Bay during 2016 and 2017 joint District and Navy avian surveys (District 2018). Three historical locations from 1988 approximately 0.5 mile north and northwest of the survey area but not within (Figure 8; CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).
Vireo bellii ssp. *pusillus*	Least Bell's vireo	FE/SE/–	Occurs in riparian woodland habitats with a dense, shrubby understory for concealment of nests. Winters outside California in Mexico.	*Not Expected Foraging. Not Expected Nesting.* No suitable habitat present. One historical location from 1923 occurs approximately 0.75 mile southeast of the survey area but not within (Figure 8; CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).
			Mammals	
Choeronycteris mexicana	Mexican long-tongued bat	None/SSC/–	Roosts in caves, mines, and rock crevices; under exposed tree roots; and in buildings in San Diego County during migration (some may overwinter). Forages on nectar.	*Low Roosting; Low Foraging.* Roosts are available in the buildings and structures but ornamental plants for nectar foraging are limited to the edges of the survey area. Not likely to forage or roost in survey area due to high noise and human activity levels. One historical location from 1984 occurs approximately 1 mile north of the survey area but not within (Figure 8; CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).
Lasiurus xanthinus	Western yellow bat	None/SSC/–	Occurs in urban or suburban areas with non-native trees and artificial water sources. Roosts in dead fronds ("skirts") of native and non-native fan palms and in cottonwood trees and yuccas.	*Low Roosting; Low Foraging.* Ornamental trees for roosting are limited to the edges of the survey area and artificial sources of freshwater are present. One historical location from 1985 occurs approximately 1 mile east of the survey area but not within (Figure 8; CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).

Table 3. Sensitive Plant and Wildlife Species Potential to Occur in the Survey Area

Scientific Name	Common Name	Status Federal/State/ CRPR	Habitat	Potential to Occur
Nyctinomops femorosaccus	Pocketed free-tailed bat	None/SSC/–	Occurs in desert scrub, riparian areas with high vertical cliff faces or rocky outcrops and abandoned quarries for cavity roosting. Known to roost under Spanish tile roofs but not known to roost in buildings locally.	*Not Expected Roosting. Not Expected Foraging*. No suitable roosting habitat present or nearby for foraging. One historical location from 1991 occurs approximately 0.75 mile southeast of the survey area but not within (Figure 8; CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).
Nyctinomops macrotis	Big free-tailed bat	None/SSC/–	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, but observations are likely temporary during migration.	*Not Expected Roosting. Not Expected Foraging*. No suitable habitat present. No colonies occur within San Diego County. Migrants may be found on tall buildings north of the survey area during migration. One historical location from 1987 occurs approximately 1 mile east of the survey area but not within (Figure 8; CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).

Notes: amsl = above mean sea level; BCC = bird of conservation concern; FC = federal candidate; FE = federally endangered; FP = state fully protected; FT = federally threatened; FDL = federally delisted; BGEPA = Bald and Golden Eagle Protection Act; SE = state endangered; NE = narrow endemic; None = No status indicated for species; SE = state endangered; SDL = state delisted; SSC = state species of special concern; WL = state watch list species

CNPS Rare Plant Ranking

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

Threat Ranks:.1 = seriously threatened;.2 = moderately threatened;.3 = not very threatened

Bold = observed in the survey area

5.4.1 Critical Habitat

The potential presence of critical habitat in the survey area and within a 1-mile radius was analyzed. No critical habitat for sensitive plant or wildlife species occurs in or within 1 mile of the survey area (CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b). All of San Diego Bay, including the northern portion where the survey area is located, is proposed as critical habitat for green sea turtle (*Chelonia mydas;* Eastern Pacific Distinct Population Segment) migration, foraging, and resting (NOAA 2023). Green sea turtle was determined to have a moderate potential to forage in the eelgrass beds in the southern portion of the survey area while moving through San Diego Bay but is not expected to nest in the survey area, as described above in Table 3.

5.4.2 Sensitive Plant Species Observed

No sensitive plant species were observed in the survey area during the 2024 biological reconnaissance survey.

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

Based on the literature and database reviews, no sensitive plant species were determined to have a high potential to occur in the survey area (Table 3).

5.4.4 Sensitive Wildlife Species Observed

Three sensitive wildlife species, Cooper's hawk, California horned lark, and double-crested cormorant, were observed in the survey area during the 2024 biological reconnaissance and avian use surveys. The sensitive wildlife species observed during the surveys are shown on Figure 9 and are described in the following sections. Not all observation locations for these species are shown on Figure 9, but points representative of the primary areas where they were observed during the surveys are included.

5.4.4.1 Cooper's Hawk (*Accipiter cooperii*), WL

Cooper's hawk is a CDFW WL 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 20th 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 2004). Cooper's hawk pursues prey from perches, especially birds, but will also feed on small mammals, reptiles, or amphibians. This species is threatened by habitat fragmentation and loss, hunting, and pest control.

At least one adult Cooper's hawk was incidentally observed flying over the northern portion of the survey area during three of the 2024 winter avian use surveys (Figure 9). Suitable foraging habitat for Cooper's hawk occurs throughout the survey area and large trees suitable for nesting occur in the northern edge of the survey area. However, the surrounding development and high levels of activity likely reduce the potential for this species to occupy the survey area outside passing through while foraging.

No historical locations for this species have been documented within 1 mile of the survey area (CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).

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

California horned lark, a CDFW WL 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 the Sierra Nevada (Unitt 2004). California horned lark primarily forage for seeds on the ground but occasionally perch on plants to harvest seeds from seed heads. Threats to this species include a small population size, disturbance during nesting season, and habitat loss.

One California horned lark adult was observed flying over the eastern portion of the survey area during one of the 2024 winter avian use surveys (Figure 9). Suitable foraging and nesting habitat for California horned lark is limited to the disturbed habitat in the eastern end of the survey area. However, the surrounding development and high levels of activity likely reduce the potential for this species to occupy the survey area. No historical locations for this species have been documented within 1 mile of the survey area (CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).

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

Double-crested cormorant, a CDFW WL 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 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. Threats to this species include loss of nesting habitat and pollution, particularly discarded fishing gear and oil spills.

Double-crested cormorants were observed swimming in the open water and perching along the shoreline in the survey area during the 2024 biological reconnaissance survey (Figure 9). A total of 16 adults were observed flying through the survey area during the 2024 avian use surveys (Figure 9). The nearest known nesting colony is in southern San Diego Bay approximately 10 miles south of the survey area (Unitt 2004). Although no

suitable nesting habitat is present, the eelgrass beds and shallow and moderately deep subtidal communities of San Diego Bay along the southern and southwestern edges of the survey area provides suitable foraging habitat for this species. Double-crested cormorant is not expected to nest in the survey area; however, there is high potential for this species to forage in the aquatic habitats in the south-central edge of the survey area, in addition to being observed flying over the survey area or perching on structures. No historical locations for this species have been documented within 1 mile of the survey area (CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025b).

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

Based on the literature and database review, one sensitive wildlife species, California least tern, that was not observed during the 2024 biological reconnaissance survey and avian use surveys was determined to have a high potential to occur in the bay (Table 3). The sensitive wildlife species determined to have a high potential to occur in the survey is described in the following section.

5.4.5.1 California Least Tern (*Sternula antillarum browni*), FE/SE, FP

California least tern is federally and state listed as endangered, and is a CDFW fully protected species. California least tern is the smallest tern in North America 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 sandy beaches, arriving in April in Southern California and May in Northern California (Unitt et al. 2004). California least tern is a resident in lacustrine waters near the coast of Southern California (Unitt et al. 2004). This species nests on barren to sparsely vegetated habitat with sandy or gravelly substrate near water that lacks disturbance from humans and other large terrestrial animals (Unitt et al. 2004). California least tern feeds on small fish they catch by diving into the water. Threats to this species include loss of nesting habitat and the introduction of mesopredators (dogs, cats, crows, skunks, foxes, and raccoons) from nearby development.

No suitable nesting habitat for this species is present in the survey area and the surrounding urban development and human activity in proximity further reduces the suitability of the survey area for nesting by this species. Therefore, nesting California least terns are not expected within the survey area. Established California least tern nesting colonies occur at SDIA approximately 0.5 mile northeast; at D Street Fill, North and South Delta Beaches, Chula Vista Wildlife Reserve, and South Bay saltworks in southern San Diego Bay to the south of the survey area; and elsewhere within the County (i.e., Mission Bay, San Dieguito Lagoon, and Coronado Island) (District 2019b; Unitt 2004). However,

suitable foraging habitat occurs within the open water in the southern portion of the survey area, providing high potential for California least tern to be foraging within the survey area.

5.4.6 Nesting Birds

The survey area contains suitable nesting habitat for several bird and raptor species protected under the CFGC and MBTA. Mature landscaping trees, including fig, pine, eucalyptus, and palm species, are present along the edges of the urban/developed land in the survey area that are suitable for many species including hummingbirds and raptors. A colony of great blue herons (*Ardea herodias*) was observed nesting in the tops of tall pines approximately 320 feet southwest of the survey area. Although nesting was not observed within the survey area, the tall pine trees that occur along the edges of the survey area have the potential to support colonies of great blue herons and other tree-nesting species. Further, American crows (*Corvus brachyrhynchos*) have been known to nest in the tall pine trees along the northern edge of the survey area, which may reduce the likelihood for raptors to nest there due to harassment and nest predation by the crows.

Structures in the survey area may provide nesting opportunities for other nesting birds, including black phoebe (*Sayornis nigricans*) and cliff swallow (*Petrochelidon pyrrhonota*), which attach or build their nests to undersides of eaves and structures with mud. Other species, such as sparrows, use cracks and crevices in structures, and gulls often use building roofs for nesting. While the buildings in the survey area likely support nesting by these other structure-dwelling species, no skyscrapers or tall buildings suitable for nesting by peregrine falcons (*Falco peregrinus*) are present.

The San Diego Bay shoreline, which is primarily concrete and riprap lined, in the southern portion of the survey area does not provide suitable nesting habitat for shorebirds due to the lack of undisturbed, long, sandy stretches of beach without vegetation. No suitable nesting habitat is present in the survey area for one of the sensitive bird species observed, double-crested cormorant, and the only sensitive species with a high potential to occur, California least tern; therefore, these species are not expected to nest in the survey area. The survey area provides suitable nesting habitat for the other two sensitive bird species observed in the survey area, California horned lark and Cooper's hawk. However, the suitable nesting habitat for these species is limited to the edges of the survey area, specifically the small area of disturbed habitat at the eastern end of the survey area for California horned lark and the mature trees around the northern and western edges of the survey area for Cooper's hawk. The potential for these species to nest in the survey area is further reduced by the development and high levels of activity surrounding the survey area, particularly the San Diego International Airport that borders the survey area to the north, which has the potential to deter nesting by these sensitive species.

While no common or sensitive birds or raptors were observed nesting in the survey area during the 2024 biological reconnaissance survey, the availability of suitable nesting habitat and nearby foraging habitat indicates birds and raptors protected under the CFGC and MBTA likely use the survey area for nesting.

5.4.7 Sensitive Roosting Bats

No bats were observed during the 2024 biological reconnaissance survey. The survey area does not contain abundant suitable foraging habitat for common or sensitive bat species. In addition, suitable roosting habitat is limited. The buildings in the urban/developed land of the survey area provide suitable roosting habitat for structure-dwelling bats, including sensitive Mexican long-tongued bat (*Choeronycteris mexicana*) and other common bats such as the big brown bat (*Eptesicus fuscus*). Although sparse, the few ornamental agave (century) plants observed primarily surrounding the commercial and industrial developments could provide suitable foraging opportunities for Mexican long-tongued bat. However, this species is not known to occur in the survey area but is known to frequent areas farther out north (i.e., Pacific Beach). Approximately 600 meters west of the survey area is Spanish Landing Park, where there is some potential for tree-roosting bats, such as the hoary bat (*Lasiurus cinereus*), western red bat (*Lasiurus blossevillii*), and western yellow bat (*Lasiurus xanthinus*), which forage in open areas. However, due to the surrounding urban development, high levels of activity and noise at the nearby San Diego International Airport, and overall low-quality and limited roosting habitat, there is low potential for these species to be found in the survey area. While no bats were observed using the survey area for roosting or foraging during the 2024 biological reconnaissance survey, no nighttime mist-netting or acoustic surveys were conducted, and there is potential for sensitive bat roosting and foraging in the survey area.

5.4.8 Marine Mammals

Marine habitats, including shallow subtidal, moderately deep subtidal, and eelgrass beds, in the southern portion of the survey area provide suitable foraging habitat for marine mammals that are protected under the MMPA, including Pacific harbor seal (*Phoca vitulina richardsi*), California sea lion (*Zalophus californianus californianus*), and coastal bottlenose dolphin (*Tursiops truncatus*). Based on the literature and database review and reconnaissance survey results, there are no documented established haul-out, foraging, or breeding areas used by these or other marine mammals are within the survey area, these species may move through the marine habitats in the southern portion of the survey area (District 2019a; Unitt 2004; CDFW 2025a, 2025b; SanGIS 2025; USFWS 2025). However, the shoreline along the edge of the marine habitats of the survey area is primarily concrete and riprap lined, which reduces the potential for the survey area to provide haul-out and resting habitat for marine mammals. While no marine mammals

were observed in the survey area during the 2024 biological reconnaissance survey, no in-water marine surveys were conducted, and there is potential for marine mammals to forage in and move through the southern portion of the survey area.

5.4.9 Essential Fish Habitat

EFH is defined as waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (16 USC 1802[10]). Under the MSA, EFH is established regionally by Fisheries Management Councils through the preparation of FMPs. The survey area is within the Pacific region, and the Pacific Coast Fisheries Management Council has designated EFH for the following species: salmon, groundfish (elasmobranchs, roundfish, rockfish, and flatfish), coastal pelagic species (sardines, anchovies, and mackerel), and highly migratory species (tunas, sharks, and swordfish). The Pacific Coast FMPs manage and require consultation with NOAA's NMFS for actions that may adversely affect EFH.

The marine habitats in the survey area (eelgrass beds, shallow subtidal, and moderately deep subtidal) provide potential EFH for some of the species managed by the Pacific FMPs, including groundfish (elasmobranchs, roundfish, rockfish, and flatfish) and coastal pelagic species (sardines, anchovies, and mackerel). Further, within EFH, eelgrass beds are designated as an HAPC for managed groundfish species within the Pacific Coast Groundfish FMP (NMFS 2023). While no groundfish or coastal pelagic species were observed in the marine habitats of the survey area during the 2024 biological reconnaissance survey, no in-water marine surveys were conducted, and although the literature and database results do not document sensitive marine fish species in the survey area, there is potential for these fish species to forage in and move through the southern portion of the survey area.

5.4.10 Wildlife Corridors and Habitat Linkages

Wildlife corridors provide routes for local wildlife movement and regional habitat linkages, often following linear topographic, vegetative, or hydrologic features. These corridors can be continuous habitat features, or "stepping stone" areas, providing critical rest and foraging areas for, for example, birds traveling along migratory routes. Local routes of movement provide constant connections to resources including water sources, 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. Habitat characteristics considered include topography, habitat quality, and adjacent land uses.

The terrestrial portion of the survey area is developed, is generally surrounded by developed areas, and does not provide large tracts of undisturbed native vegetation or undeveloped open spaces through which wildlife seeking opportunities for movement would be attracted to or use. Most of the survey area has limited use as a wildlife movement corridor because available nesting, roosting, and foraging habitat is restricted to sparse ornamental vegetation and existing structures. The survey area may provide some local movement opportunities for mesocarnivores, such as raccoons (*Procyon lotor*), and smaller mammals, such as rabbits (*Sylvilagus* sp.), but it is more likely that common, non-sensitive mesocarnivore (Virginia opossum [*Didelphis virginiana*]) and rodent species use the survey area the most. The surrounding dense urban development greatly eliminates the use of the survey area for large mammals like mule deer (*Odocoileus hemionus*) and mountain lions (*Puma concolor*).

The marine habitats in the survey area, primarily within the survey buffer but also on the south-central edge of the Project area, have the potential to provide a wildlife movement corridor for marine mammals, sensitive green sea turtles, and anadromous fish species both locally and regionally. As previously discussed in Table 3, a resident population of green sea turtles (Eastern Pacific DPS), a federally threatened species, is documented in south San Diego Bay, and these individuals are known to move through north San Diego Bay during migration (Naval Facilities Engineering Command Southwest 2016; NOAA 2023). While documented occurrences of marine mammals, including harbor seals and California sea lions, within the aquatic habitats of the survey area are less common, these species may move through north San Diego Bay while foraging. Although the marine habitats in the survey area are limited to the southern portion, much of the marine habitat in the survey area is composed of eelgrass beds, which represent moderately suitable foraging habitat for green sea turtles and may attract prey species, including fish, and invertebrates for marine mammals, both of which have the potential to move through north San Diego Bay.

The survey area holds some value for MBTA-protected migrating birds flying through to wintering or breeding grounds. The survey area is within the Pacific Flyway, along which millions of birds, especially waterfowl, migrate annually between Alaska and Canada, through California, to Mexico and South America. Coastal San Diego provides an important stopover area for a large variety of birds during their annual migration. The ornamental vegetation around the northern and western edges of the survey area and structures throughout the survey area can temporarily support migrants, particularly due to the proximity of the survey area to San Diego Bay and connection to the Pacific Coast and open waters to the west; however, the dense commercial and industrial development likely deters migrants from using the survey area for any longer length of time. The survey area provides nesting opportunities for common species that are less likely to be

disturbed by greater human presence, including Anna's hummingbirds (*Calypte anna*), American crows, and western gulls, all of which (*Larus occidentalis*) are likely to use the survey area for nesting and foraging.

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Section 6 Impacts and Mitigation

Based on CEQA Guidelines, Appendix G, 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 that, when considered together, are considerable or that compound or increase other environmental impacts.

The following thresholds are from CEQA Guidelines, Appendix G, and are used in this BRTR to evaluate Project impacts. The Project would have a significant impact on biological resources if it would:

1. **Threshold 1:** Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
2. **Threshold 2:** Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.
3. **Threshold 3:** Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.
4. **Threshold 4:** Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.
5. **Threshold 5:** Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.
6. **Threshold 6:** Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

6.1 Impacts

Impacts on biological resources from implementation of the Project are categorized quantitatively as direct and indirect impacts.

Direct impacts to biological resources occur when significant alterations or destruction occurs during the course of, or because of, Project implementation. Examples of such impacts include removing, disturbing, or grading vegetation; and erecting any structures.

Other direct impacts may include loss of foraging or nesting habitat and loss of individual species as a result of habitat clearing.

Indirect impacts may include elevated levels of noise or lighting, change in surface water hydrology, and increased erosion or sedimentation. These types of indirect impacts can affect vegetation communities or their potential use by sensitive species. They can also cause the disruption of normal wildlife functions or activities, impacting individual species.

Within the direct and indirect quantitative impacts categories, impacts are also qualified temporally as permanent and temporary impacts.

Permanent impacts may result in irreversible damage to biological resources, including habitat or removal of species from a particular area.

Temporary impacts are interim changes in the local environment due to construction and would not extend beyond Project-associated construction.

6.1.1 Threshold 1: Sensitive Plant and Wildlife Species

6.1.1.1 Guidelines for Determination of Significance

Significant impacts to sensitive plant and wildlife species could result from implementation of the Project if the Project has a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status in local or regional plans, policies, or regulations or by the CDFW and USFWS.

6.1.1.2 Impact Analysis

Sensitive Plant Species

Direct and Indirect Impacts

As discussed in Section 5.4, no sensitive plant species were observed in the survey area during the 2024 biological reconnaissance survey, and no additional sensitive plant species were determined to have a high potential to occur in the survey area based on the literature and database results review. While no focused rare plant surveys were conducted in the survey area, most of the Project area and potential impact area are urban/developed land composed of hardscape and buildings and limited vegetation dominated by non-native landscaping plants. The disturbed habitat in the survey buffer outside the Project area has a low potential to support sensitive plant species, as evaluated in Table 3, and impacts to this area are not anticipated to occur (Figure 10, Biological Resource Impacts).

While no in-water marine surveys were conducted during the 2024 biological reconnaissance survey, no sensitive plant species were determined to have a potential to occur in the marine habitats in the Project area. Eelgrass, while not listed as a sensitive plant species, is documented within the eelgrass beds in the southeastern portion of the Project area (Figure 6). As discussed in Section 5.1.1.1 and Section 5.4.9, Essential Fish Habitat, eelgrass beds are designated as EFH and HAPC under the MSA and, therefore, is categorized as a sensitive marine habitat. Potential impacts related to eelgrass beds as a sensitive marine habitat are evaluated under Threshold 2 in Section 6.1.2. Therefore, direct and indirect impacts to sensitive plant species would be less than significant, and no mitigation is required.

Sensitive Wildlife Species

Direct Impacts

The three sensitive wildlife species observed in the survey area during the 2024 biological reconnaissance and avian use surveys include Cooper's hawk, California horned lark, and double-crested cormorant (Figure 9). As discussed in Section 5.4, one sensitive wildlife species, California least tern, which was not observed during the 2024 surveys, was determined to have a high potential to occur, specifically for foraging, in the waters of the San Diego Bay within the survey area. Potential impacts to suitable nesting habitat for Cooper's hawk, California horned lark, double-crested cormorant, and California least tern in the Project area is discussed in the Nesting Birds subsection below.

The survey area provides suitable foraging habitat for Cooper's hawk. The only marginally suitable foraging and nesting habitat for California horned lark is limited to the disturbed habitat in the eastern end of survey area, outside the Project area. The potential suitability for foraging by these species is reduced by the urban development and high levels of activity surrounding the Project area. Although these species' limited foraging habitats within the Project area could be temporarily disrupted during construction, the existing urban conditions would not change from Project implementation, and no permanent loss of foraging habitat would occur (Figure 10). Further, the addition of the waterfront park and promenade landscaping proposed by the Project would expand potential foraging habitat for these species. Therefore, impacts to foraging Cooper's hawk and California horned lark would be less than significant.

As previously discussed, most of the Project area is developed and does not provide suitable foraging habitat for double-crested cormorant or California least tern. However, the south-central portion of the Project area where an approximately 550 foot-long section of the shoreline would be repaired and replaced with nature-based solutions or riprap has the potential to extend below the high tide line into aquatic habitats, specifically shallow and

moderately deep subtidal, which provide suitable foraging habitat for these species (Figure 10). Double-crested cormorant were observed foraging in and flying over these communities of San Diego Bay on the southeastern portion of the Project area and survey buffer during the 2024 surveys. Although California least tern were not observed foraging in the survey area, the species has several known nesting colonies in San Diego County, the closest of which is at the San Diego International Airport approximately 0.5 mile northeast of the survey area. Therefore, these species have the potential to forage in the water of San Diego Bay in the southeastern edge of the Project area while moving between their established nesting grounds and greater suitable foraging habitat along the Pacific Coast.

While most of the Project activities are limited to the urban/developed land of the Project area, the repair and replacement of approximately 550 feet of shoreline with nature-based solutions or riprap could result in direct temporary impacts to the foraging habitat for double-crested cormorant and California least tern provided by the eelgrass beds and shallow and moderately deep subtidal communities in the southeastern portion of the Project area (Figure 10). In the event shoreline replacement activities cannot avoid in-water work conducted solely from the land side of the Project area during low-tide conditions, these potential impacts could result from a barge temporarily operating within the eelgrass beds and shallow and moderately deep subtidal portions of the survey area. The barge could be used to remove and replace shoreline materials during shoreline replacement activities. The barge would be required to reposition based on the tide to avoid touching or disturbing the sea floor and sensitive eelgrass beds. Further, no spudding or other barge positioning methods that would disturb the sea floor or eelgrass beds would be allowed during shoreline replacement activities. Once the existing shoreline revetment or surrounding riprap are repaired and replaced, the exposed shoreline would be reinforced with riprap or nature-based solutions, consistent with the existing surrounding shoreline of San Diego Bay, and would not result in the permanent loss of the foraging habitat that the eelgrass beds and shallow and moderately deep subtidal provide for these species. Therefore, implementation of the Project could directly impact double-crested cormorant and California least tern through temporary displacement of individuals and rendering habitat inaccessible during construction of the Project (Figure 10). Direct impacts to these three sensitive wildlife species would be potentially significant.

Nesting Birds

As previously discussed in Section 5.4.6, Nesting Birds, the survey area provides suitable nesting habitat for birds and raptors protected under the CFGC and MBTA, including Cooper's hawk and California horned lark that were observed in the survey area. Although no active nests or nesting behavior were observed during the 2024 biological reconnaissance

and avian use surveys, the availability of suitable tree- and structure-nesting habitat and nearby foraging habitat indicates birds are likely to use the Project area for nesting.

If construction begins during the nesting season (January 15 through September 15) (California Fish and Game Code, Sections 3503 and 3503.5), temporary direct construction-related impacts could have a significant impact on the nesting birds and raptors protected under the CFGC and MBTA. Impacts would occur through disturbance to nesting birds from substantial sources of noise generated at the start of construction. Therefore, impacts to nesting birds protected under the MBTA and CFGC from construction activities that begin during the raptor nesting season and general nesting bird season would be potentially significant.

Sensitive Roosting Bats

As discussed in Section 5.4.7, Sensitive Roosting Bats, low potential for sensitive bat species, including hoary bat, western red bat, and western yellow bat, occurs and is limited to the ornamental trees and palms along the edges of the survey area, outside the Project area. Although roosting bats were not observed during the 2024 biological reconnaissance survey, no focused nighttime mist-netting or acoustic surveys were conducted. The availability of suitable structure and tree-roosting habitat with nearby foraging habitat suggests that sensitive bats are likely roosting in the Project area. Direct impacts to the developed land in the Project area, particularly removal of buildings and trees during construction, could result in direct impacts to sensitive bats in the form of permanent and temporary roosting habitat loss. Therefore, impacts to sensitive roosting bat species during construction and tree removal would be potentially significant.

Marine Mammals

As discussed in Section 5.4.8, Marine Mammals, suitable foraging habitat for marine mammals that are protected under the MMPA, including Pacific harbor seal, California sea lion, and coastal bottlenose dolphin, is present in the shallow and moderately deep subtidal and eelgrass beds in the southeastern portion of the survey area. Only a small portion of the Project area, specifically the seaplane ramp, occurs in the shallow and moderately deep subtidal and eelgrass bed habitats, and no Project construction is proposed in that area. However, the potential temporary use of a barge during the shoreline repair and replacement activities could result in temporary direct impacts to marine mammals from temporary disruption of foraging habitat in the shallow and moderately deep subtidal and eelgrass beds adjacent to the 550-foot-long shoreline repair and replacement area (Figure 10). Marine mammals would likely avoid foraging in the area surrounding the barge during its use; however, the barge would be stationary and close to shore during operation, allowing marine mammals to easily avoid it and move

through the open waters of the bay to the south unrestricted. Moreover, use of the barge would be for a short time, after which point any impacts would cease.

As discussed in the analysis of sensitive wildlife species direct impacts, no permanent impacts from removal of the shallow and moderately deep subtidal and eelgrass beds in the survey area would occur, and the current shoreline would be repaired and replaced with nature-based solutions or riprap, consistent with the surrounding shoreline of San Diego Bay. Therefore, the Project would not result in the permanent loss of the foraging habitat that shallow and moderately deep subtidal and eelgrass beds provide for marine mammals. However, as discussed previously, implementation of the Project could impact these species through temporary displacement of individuals and temporary elimination of their foraging habitat during construction of the Project (Figure 10). Therefore, impacts to marine mammals would be potentially significant.

Indirect Impacts

Temporary construction-related and long-term operational indirect impacts to sensitive wildlife generally include behavioral changes and mortality from new structures and sources of lighting, increased human activity, water 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 bird predators (such as American crows, common ravens [*Corvus corax*], domestic dogs [*Canis familiaris*], raccoons, and striped skunks [*Mephitis mephitis*]). These impacts are considered indirect impacts as they are reasonably foreseeable and caused by the Project, but occur at a different time or place than the actual Project. Implementation of the Project includes demolition of existing structures and construction of new permanent buildings and structures (including the Topgolf netting system), as well as the proposed waterfront park along the southern portion of the Project area. Both construction and operation of the Project could introduce the previously listed factors, potentially resulting in indirect impacts to the sensitive wildlife species observed or with a high potential to occur in the Project area—Cooper's hawk, California horned lark, double-crested cormorant and California least tern. These potential indirect impact factors are discussed in detail in the sections below.

Structures

The Project proposes one three-level building with a maximum height of 46 feet and a barrier netting system that ranges between 90 and 170 feet. The barrier netting system is much higher than the low-rise building height (40-foot above grade) cited by the USFWS and California Green Building Standards Code as being most susceptible to bird strikes and accounting for 56 percent of collision mortalities (CALGreen 2022b; USFWS

2021). However, these new structures could potentially result in an increase in bird strikes due to the new building, and an increase in both entanglements and bird strikes due to the barrier netting system. According to the USFWS (USFWS 2024a; 2024b), glass is an invisible barrier to birds. During the day, birds mistakenly fly toward reflections in glass that may deceive them to be natural habitat, such as the sky or trees. According to California Green Building Standards Code's Bird-Friendly Design Workshop, bird strikes predominantly occur within the first 40 vertical feet of a building (CALGreen 2022). Additionally, according to the USFWS, most bird strike fatalities occur at residences and buildings shorter than four stories tall (USFWS 2024a). Additional impacts to birds from these new structures may include disorientation, attraction to the structures, and avoidance or evasive behavior around them. Avoidance of the structures may lead to increased energy expenditure for birds that forage within the surrounding habitat.

While the new barrier netting system introduces a risk of bird entanglement to the Project area, the results of monitoring conducted at the Topgolf Burlingame, which is in a similar coastal location to the Project, determined that no bird incidents with the netting system that would trigger an actionable report have been reported to date (H.T. Harvey & Associates 2019; Wetterling, pers. comm. 2025). The use of black netting and net marking devices have been shown to be visible for birds flying toward the netting system, as evidenced in monitoring survey results for Topgolf Burlingame, which documented birds that were flying toward the netting system appearing to identify the netting and changing course to fly around or over it (H.T. Harvey & Associates 2019 Although these results are limited to one Topgolf location and do not negate the entanglements that have occurred at other Topgolf locations and the potential risk for future entanglements, they suggest that adaptive management solutions can reduce potential direct impacts to birds.

However, the potential indirect impacts from increased bird strikes and entanglement in the new structures proposed by the Project could result in behavioral changes and potential mortality for the sensitive bird species observed or those with a high potential to occur in the Project area—Cooper's hawk, California horned lark, double-crested cormorant, and California least tern.

In addition, the poles that support the barrier netting system could provide new structures for raptors and other avian predators to use as perches while hunting. The introduction of new perches for raptors could increase the potential for mortality by predation of sensitive California horned lark that was observed foraging and has the potential to nest in the Project area. Potential indirect impacts to sensitive California least tern, while not known to nest in the Project area, could also result from the introduction of new raptor hunting perches. As previously discussed in Section 5.4.5.1, an established California least tern colony occurs approximately 0.5 mile northeast of the Project area at the San Diego

International Airport. Some raptor species, such as the peregrine falcon (*Falco peregrinus*), can identify and track prey that is up to 1 mile away (Vance et al. 2000). Due to the proximity of the Project area to the California least tern colony, raptors utilizing the barrier netting system poles as perches could negatively impact the colony by predating chicks, fledglings, and adults. The potential for predators to use the poles as perches can be reduced through the incorporation of perch deterrent devices into the Project design. Perch deterrent devices such as triangle- and cone-shaped pole caps or spike-type features installed on the tops of poles and other similar structures have been shown to decrease the use and duration of perching by predators (SDG&E 2014; Dwyer & Doloughan 2014). Without the use of perch deterrent devices in the Project design, the potential indirect impacts from the new barrier netting system poles could result in mortality by predation of the sensitive bird species observed or those with a high potential to occur in the Project area—California horned lark and California least tern.

Therefore, structure-related indirect impacts to sensitive wildlife species during construction activities and operation of the Project would be potentially significant.

Lighting

The Project would result in new and increased nighttime lighting during construction activities and operation, which could disrupt behaviors and cause mortality (i.e., bird strikes) to the sensitive wildlife species that occur or have a high potential to occur in the survey area. High-frequency blue-light light-emitting diodes (LEDs) have been shown to disrupt natural circadian rhythms in humans and wildlife, leading to disruptions in sleep. Artificial lighting can also extend daily activity and lead to prolonged foraging periods in diurnal species, such as the five sensitive wildlife species included in this discussion. Other disruptions in wildlife behaviors, such as disorientation, attraction to, and congregation around lights are associated with nocturnal migrating birds (Aulsebrook et al. 2021). Due to the high aiming angle required to illuminate the golf balls in flight from the Topgolf building, the light spill is expected to exceed the threshold for nighttime impacts from sports lighting as discussed in Section 3.1, Aesthetics of the EIR. At night, birds are attracted to artificial lights on landscapes and in residences, drawing them closer to windows and other lit structures (including the proposed netting system), increasing the potential for bird strikes and netting entanglement. According to the California Green Building Standards Code, bird strikes occur predominantly within the first 40 vertical feet of a building (CALGreen 2022).

The increased nighttime light spillage into the marine habitats of the survey area could also result in changes to the behavior of protected marine mammals moving through this portion of San Diego Bay. However, as demonstrated in the Lighting Analysis prepared for the Project (HLB 2025), with mitigation in the form of a berm or fence screening as included in

mitigation measure AES-1 in Section 3.1. Aesthetics of the EIR, the Project would not result in light spillage specifically into marine habitats in San Diego Bay. For evaluation purposes, the threshold for light spill into the water is equal to levels previously accepted by the District and CCC at the nearby Rady Shell at Embarcadero Marina Park South of 0.08 foot-candles (0.86 lux). DarkSky International's updated Municipal Ordinance Template suggests using light trespass thresholds of 1 lux (0.09 foot-candles) for light trespass into WOTUS. The threshold of 0.08 foot-candles is more conservative and "ensures that the lighting measures are practical, enforceable, and follows the DarkSky's Five Principles of Responsible Outdoor Lighting" (DarkSky International 2024). In addition, the Lighting Analysis demonstrated that the proposed display screens in the Topgolf outfield would not result in any nighttime light spill into marine habitats (HLB 2025).

Further, the Project would be required to comply with the PMP and PMPU, which include specific goals, objectives, policies, standards, project design guidelines, and ordinances to minimize indirect impacts to adjacent sensitive resources. For example, the PMPU Ecology Element ECO Policy 1.1.10 requires development proposed above water or adjacent to sensitive habitat areas to "use ecologically sensitive lighting that is shielded and directed away from the water or sensitive habitat areas, sensor activated, and of the lowest possible color temperature that also meets public safety requirements." Compliance with this policy would minimize the Project's light spillage into marine habitats through reducing the length of time certain lighting features are on and utilizing lower intensity lighting. Consistency with the PMP and PMPU would further minimize lighting-related indirect impacts to sensitive wildlife species from implementation of the Project. However, due to the overall increase in lighting, the Project would not be consistent with the INRMP and its principles for ecosystem management and stewardship of resources in San Diego Bay, primarily the principle of maintaining and improving the sustainability and native biodiversity of ecosystems. Through implementation of Mitigation Measure BIO-1, the Project would comply with the INRMP's requirement to apply adaptive management methods to reduce impacts from Project light sources.

However, the potential indirect impacts from increased lighting proposed by the Project could result in behavioral changes and mortality for the sensitive bird species observed or those with a high potential to occur in the Project area—Cooper's hawk, California horned lark, double-crested cormorant, and California least tern. Therefore, lighting-related indirect impacts to sensitive wildlife species during construction activities and operation of the Project would be potentially significant.

Increased Human Activity

The Project includes changes to land uses and increased public access to the waterfront within the Project area. Despite the change in land use, the Project area is currently fully

developed and surrounded by commercial and public land uses, including the San Diego International Airport. Due to the already disturbed baseline conditions of the Project area, the incremental increase in human activity resulting from the Project during construction and operation is unlikely to result in indirect impacts to the sensitive wildlife species observed and with a high potential to occur, including foraging double-crested cormorant and California least tern and nesting Cooper's hawk and California horned lark.

Further, the Project would be required to comply with the PMP and PMPU, which include specific goals, objectives, policies, standards, Project design guidelines, and ordinances to minimize indirect impacts to adjacent sensitive resources. For example, the PMPU Ecology Element ECO Policy 1.1.7 requires "development adjacent to habitat areas occupied by threatened or endangered species shall be in compliance with the federal and California Endangered Species Acts and shall be implemented to protect the health and survival of the species." Compliance with this policy would prohibit construction personnel or the public from harming or harassing federally and state-protected species within the Project area. Further, the Project would be required to be consistent with the INRMP and its principles for ecosystem management and stewardship of resources in the San Diego Bay, primarily the principle of maintaining and improving the sustainability and native biodiversity of ecosystems by implementing sustainable shoreline design features while providing coastal access to the public. Consistency with the PMP, PMPU, and INRMP would minimize human activity-related indirect impacts to sensitive wildlife species from implementation of the Project. Therefore, indirect impacts to sensitive wildlife species from human activity during construction and operation of the Project would be less than significant.

Water Quality and Hydrologic Changes

Construction and operation of the Project could temporarily degrade water quality in and surrounding the Project area through turbidity, excessive sedimentation, and flow interruptions resulting in indirect impacts to sensitive wildlife species. Water quality degradation in the Project area could result in indirect impacts to the sensitive wildlife species observed and with a high potential to occur, including through abandonment of foraging habitat for double-crested cormorant and California least tern. Specifically, short-term water quality impacts from turbidity during the use of the barge for shoreline repair and replacement activities has the potential to disrupt foraging in the eelgrass beds and shallow and moderately deep subtidal portions of the survey area, resulting in indirect impacts to these species.

The Project would be required to comply with the PMP and PMPU, which include specific goals, objectives, policies, standards, Project design guidelines, and ordinances to minimize indirect impacts to adjacent sensitive resources. For example, the PMPU

Ecology Element ECO Policy 1.1.11 “encourages the use of biologically engineered stormwater solutions to prevent degradation of coastal wetlands and marine ecosystems, and to reduce stormwater pollution to [San Diego] Bay.” The Project complies with PMPU Ecology Element ECO Policy 1.1.11, the construction of new storm drain infrastructure, including implementation of BMPs and realignment of the two existing stormwater outfalls to prevent degradation of marine ecosystems and to reduce stormwater pollution to San Diego Bay. Refer to Section 3.8, Hydrology and Water Quality, for a discussion on the Project’s proposed stormwater features. A Stormwater Quality Management Plan was prepared for the Project in compliance with the Municipal Permit and with design criteria outlined in the District’s BMP Design Manual. In addition, PMPU Ecology Element ECO Policy 2.3.4 requires “permittees implement measures to prevent pollution impacts and adverse impacts from runoff flows from all development and maintenance activities.” The Project complies with PMPU Ecology Element ECO Policy 2.3.4 by implementing BMPs, including measures to help prevent degradation of water quality, avoid releases of construction debris and hazardous materials, limit construction equipment idling and fugitive dust emissions, protect biological resources, and control erosion and sedimentation during construction, as well as BMPs including stormwater runoff collection through a series of water quality basins or similar approved device for required water filtration during operation. Post-construction site drainage would remain similar to the pre-project condition and the implementation of the waterfront park west of Liberator Way would not alter existing drainage patterns. Further, the Project would be required to be consistent with the INRMP, and its guiding principles for ecosystem management and stewardship of resources in San Diego Bay by implementing project BMPs as discussed above. Consistency with the PMP, PMPU, INRMP, and implementation of requirements under the state’s CGP and NPDES would minimize water quality-related indirect impacts to sensitive wildlife species from implementation of the Project.

Projects proposed in the District tidelands that are greater than 1 acre, including the Project, are required to comply with the CGP and the NPDES regulations concerning water quality. The CGP requires Stormwater Pollution Prevention Plan (SWPPP) development and implementation, including BMPs for sediment control and erosion control, and regular inspections and reporting. Standard construction BMPs and construction-related minimization measures, such as limited exposure time of disturbed soil areas, wind-erosion control, silt fencing, and vehicle and equipment cleaning to control dust, erosion, and runoff, would be incorporated into the Project’s SWPPP to reduce potential indirect water quality-related impacts associated with development of the Project. The District’s BMPs and Environmental Standards for water quality would be implemented during the proposed shoreline removal and replacement, upgrades to stormwater outfalls, and any existing in- and overwater structures maintenance or repairs

that occur during operation of the Project (District 2019a). These BMPs and Environmental Standards include performance standards and disturbance thresholds, water quality monitoring and reporting, preventative measures like silt curtain installation, and required response actions for exceedances of standards and thresholds. Integration of the District's construction and operational BMPs and Environmental Standards would protect water quality in the Project area and surrounding San Diego Bay.

However, in the absence of measures that would avoid water quality degradation during in-water shoreline repair and replacement activities using the barge, water-quality related indirect impacts to sensitive wildlife species would be potentially significant.

Noise and Vibration

Construction-related noise and vibration in the Project area could result in indirect impacts to sensitive wildlife species both observed and with a high potential to occur, including through abandonment of foraging habitat for double-crested cormorant and California least tern and nesting habitat for Cooper's hawk and California horned lark. These sensitive wildlife species may temporarily or permanently leave their foraging or nesting habitats to avoid noise generated from construction activities, which may lead to reduced reproductive success and increased mortality.

Construction of the Project would potentially result in temporary noise level increases due to the operation of heavy equipment. The greatest anticipated construction noise levels generated from the use of the four noisiest pieces of equipment that could be required during Project construction, including a grader, excavator, dozer, and pile driver, would be approximately 94 A-weighted decibels (dBA) at a 50-foot distance. The existing sound environment in the Project area has an average noise level of approximately 64 dBA with a maximum level of approximately 81 dBA. While the USFWS and CDFW do not have universal dBA limits for the sensitive foraging and nesting birds observed or with a high potential to occur in the Project area, the 30 dBA increase (at 50 feet) from ambient noise levels that would occur during Project construction is likely to deter birds from foraging and nesting within and immediately surrounding the Project area. Despite the increase in noise levels during construction, this condition would be temporary, with the maximum noise levels occurring only during pile driving for the barrier system netting poles. As previously discussed under Direct Impacts, the Project area and surrounding 50 feet provide only limited foraging and nesting opportunities for the sensitive bird species observed and with a high potential to occur in the Project area. Further, more suitable foraging habitats are available along the coast and in open spaces outside the Project area, and sensitive bird foraging activity is likely to resume in the Project area once construction is complete. However, a 30 dBA increase, while temporary, would be considered a significant increase and has the potential to result in indirect noise impacts

to sensitive birds foraging in and surrounding the Project area (Caltrans 2016). Therefore, indirect impacts to sensitive foraging birds from temporary construction noise levels would be potentially significant. As previously discussed under Direct Impacts, Nesting Birds, impacts to nesting Cooper's hawk and California horned lark, which are protected under the MBTA and CFGC, could occur from construction activities that begin during the nesting season (January 15 through September 15) (California Fish and Game Code, Sections 3503 and 3503.5). Therefore, if construction begins during the nesting season for these species, the increased noise levels during construction could result in indirect impacts to nesting Cooper's hawk and California horned lark, and impacts would be potentially significant.

The shoreline repair and replacement using on-shore and barge methods would increase the ambient noise levels in and surrounding the Project area. However, no pile driving or vibratory construction methods are proposed for shoreline repairs, and the levels of noise generated would be temporary and are not anticipated to reach thresholds to disturb sensitive species like marine mammals (NMFS 2025). The shoreline repair and replacement activities are expected to occur during daytime hours over a short period of time, along only a 550-foot portion of the bay, and are unlikely to result in significant indirect impacts to sensitive marine mammals.

The District's BMPs and Environmental Standards discussed under Water Quality also include guidelines and thresholds for ensuring noise and vibration from in-water maintenance or repairs that occur during the proposed shoreline removal and replacement and operation of the Project would not result in significant impacts to sensitive wildlife species (District 2019a). These noise- and vibration-related BMPs and Environmental Standards include performance standards and disturbance thresholds, noise and biological monitoring and reporting, and required response actions for exceedances of standards and thresholds. Integration of the District's construction BMPs and Environmental Standards would reduce the noise and vibration emitted during construction of the Project.

However, in the absence of measures that would reduce the levels of noise and vibration during construction, indirect impacts to sensitive foraging and nesting birds and foraging marine mammals would be potentially significant.

Trash and Garbage

The Project includes construction and increases public access to the waterfront within the Project area, resulting in an increase in trash and garbage which can attract both introduced terrestrial and native terrestrial and bird predators. The increased presence of trash and garbage in the Project area during construction and operation could result in

indirect impacts to the sensitive wildlife species observed and with a high potential to occur, including increased mortality through predation for Cooper's hawk, California horned lark, double-crested cormorant, and California least tern.

As previously discussed, the Project would be required to comply with the PMP and PMPU, which include specific goals, objectives, policies, standards, Project design guidelines, and ordinances to minimize indirect impacts to adjacent sensitive resources. For example, the PMPU Ecology Element ECO Policy 2.1.3 requires implementation of "waste management strategies. . . including as part of development, with a focus on reducing trash entering waterways." Compliance with this policy would prohibit the accumulation of trash and garbage in the Project area, reducing the attraction of predators that could result in sensitive wildlife species mortality. The Project complies with PMPU Ecology Element ECO Policy 2.1.3 by placing covered, secured trash receptacles that are inaccessible to wildlife within the waterfront park and promenade areas. Moreover, as discussed under Water Quality, the Project would be required to comply with the state's CGP and NPDES regulations concerning controlling the release of hazardous materials, including trash and garbage. Standard construction BMPs and construction-related minimization measures, such as requiring trash and garbage control and removal, would be incorporated into the Project's SWPPP to reduce potential indirect impacts from the release of trash and garbage associated with development of the Project. Thus, the Project would comply with Policy 2.1.3. Further, complying with these policies also ensures the Project would be consistent with the INRMP and its principles for ecosystem management and stewardship of resources in San Diego Bay, primarily the principle of maintaining and improving the sustainability and native biodiversity of ecosystems as required by implementing sustainable waste collection while providing coastal access to the public. Consistency with the PMP, PMPU, INRMP, and implementation of construction BMPs would minimize trash and garbage-related indirect impacts to sensitive wildlife species from implementation of the Project.

Therefore, indirect impacts to sensitive wildlife species from increased trash and garbage generation during construction and operation of the Project would be less than significant.

6.1.1.3 Mitigation Measures

Sensitive Plant Species

Direct Impacts

No mitigation is required.

Indirect Impacts

No mitigation is required.

Sensitive Wildlife Species

Direct Impacts

Significant direct impacts to sensitive wildlife species, including foraging seabirds, shorebirds nesting birds and raptors, sensitive roosting bats, and marine mammals could occur during Project implementation as a result of temporary displacement of individuals and removal of these species' suitable habitat.

Implementation of Mitigation Measures BIO-1 through BIO-3 would mitigate potential direct impacts to sensitive foraging seabirds and shorebirds, nesting birds and raptors, sensitive roosting bats, and marine mammals to below a level of significance. Mitigation Measure BIO-1 would require monitoring by a qualified biologist responsible for conducting pre-construction nesting bird surveys; overseeing mitigation for noise and light impacts during construction; implementing protection and avoidance measures for foraging seabirds, shorebirds, and marine mammals in the shoreline repair and replacement area; clearing roosting bats from trees and structures prior to construction activities; providing a worker education program; and completing monitoring and reporting requirements. Mitigation Measure BIO-2 requires in-water construction measures, including vessel operator training to avoid impacts on eelgrass and wildlife species from water quality and turbidity; avoidance of eelgrass; and the deployment of a turbidity curtain prior to the start of the in-water activities to reduce water quality impacts and to create a physical barrier between construction activities and foraging wildlife species. Mitigation Measure BIO-3 would require compliance with the CEMP, including pre- and post-construction eelgrass surveys for potential in-water construction activities associated with the shoreline repair and replacement.

BIO-1: Monitoring and Protection/Avoidance Measures. Prior to the start of construction activities for each Project component, the District shall approve and the Project applicant or District shall retain a qualified biologist to implement required monitoring. The approval is to include the resumes of the qualified biologist who will conduct the biological monitoring.

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

1. **Migratory Bird Treaty Act Compliance.** To avoid any direct impacts to birds and raptors protected under the Migratory Bird Treaty Act, removal of habitat that supports active nests in the Project area shall occur outside the general breeding season for these species (January 15 to September 15). If removal of habitat in the Project area must occur during the breeding season, the qualified biologist shall conduct a pre-construction survey to determine the presence or

absence of protected nesting birds and raptors in the Project area. The pre-construction nesting survey must be conducted within 10 calendar days prior to the start of construction. If nesting birds or raptors are detected, a construction buffer shall be established and nest monitoring shall occur at the appropriate interval as determined by the qualified biologist to prevent any impacts to nesting species. These buffers are to remain in place until the qualified biologist determines the nest is no longer active. If, based on the judgment of the qualified biologist, species behavior indicates disturbance or modification due to project activities, the qualified biologist shall have the authority to halt or modify construction activities, as appropriate.

2. **Construction Noise and Lighting Impact Mitigation**. To the maximum extent feasible, the following noise and lighting conditions shall be followed by the construction contractor as overseen by the qualified biologist:
    a. Construction activities expected to result in the highest decibel outputs shall occur outside the general breeding season for birds and raptors, from January 15 to September 15, especially during the specific nesting season for California least tern (April 15 to September 15). Noise monitoring during these high-decibel construction activities shall be conducted at the discretion of the qualified biologist to avoid potential noise-related behavioral changes for foraging and nesting birds.
    b. Construction activities shall be limited to between dawn and dusk to avoid the use of nighttime construction lighting and the resulting illumination of adjacent habitat areas.
3. **Seabird, Shorebird, and Marine Mammal Protection.** If shoreline repair and replacement construction will require in-water activities (including the use of a barge) and has been determined by a qualified biologist to have the potential to create turbidity, a qualified biologist shall conduct a survey of the shoreline repair and replacement area plus a 100-foot buffer, including the surface of the water, to determine the presence of foraging seabirds, shorebirds, and marine mammals. The qualified biologist shall be present for the duration of the in-water shoreline repair and replacement activities to observe any seabirds, shorebirds, or marine mammals foraging in that area. If the qualified biologist determines these species are present within the 100-foot buffer, the qualified biologist shall direct the work to stop until the species leaves the area.
4. **Tree and Structure Clearance.** The removal or demolition of structures or trees in the Project area (particularly any ornamental trees) is necessary during the nesting season, a qualified biologist shall conduct clearance surveys prior to removal. If wildlife species are encountered in any of the

structures or trees during other biological surveys, the qualified biologist shall allow the species to disperse. If tree- and/or structure-roosting bats are suspected, structure clearance surveys followed by slow removal by gently pushing the structure or tree over with heavy equipment, to provide bats with further opportunity to disperse, shall be required.

5. **Pre-Construction Meeting/Education.** Prior to the start of construction activities, including potential in-water shoreline repair and replacement, a qualified biologist shall meet with the construction contractor and crew and conduct an on-site educational session regarding the need to avoid impacts and to protect sensitive plants and wildlife that may occur in or near the Project area. This may include but not be limited to explanations of the bird nesting buffers, protection of sensitive wildlife, avoidance of eelgrass beds, and construction best management practices.
6. **Biological Monitoring and Reporting.** A qualified biologist shall inspect the Project construction area. This may include but not be limited to pre- and post-construction inspections, weekly visits, or full-time monitoring, as determined by the qualified biologist in consultation with the District.

The qualified biologist shall document inspection event in reports. These reports shall be sent to the San Diego Unified Port District project manager each month. A Final Monitoring Report shall be prepared and sent to the District project manager within 3 months of mitigation monitoring completion. The report shall detail monitoring that occurred and any remedial measures that were required.

BIO-2: In-Water Construction Measures. Prior to and during all shoreline repair and replacement activities requiring use of a barge or other in-water methods, the District shall implement the following construction measures in accordance with applicable federal, state, and local regulations, including but not limited to the U.S. Army Corps of Engineer's enforcement of Clean Water Act (CWA) Section 404, Rivers and Harbors Act Section 10, and Regional Permit No. 72; Regional Water Quality Control Board's enforcement of CWA Section 401 and the applicable NPDES permit conditions; California Fish and Game Code, Division 3, Chapter 3.3, Section 2300, and the District's enforcement of the Stormwater Management and Discharge Control Ordinance:

1. **Pre-Construction *Caulerpa* Survey**. Prior to the start of in-water construction activities, the District shall retain a certified *Caulerpa* surveyor to implement a pre-construction *Caulerpa* survey of the in-water work area in accordance with the procedures and requirements in the *Caulerpa* Control Protocol (NOAA 2021) developed by the Southern California *Caulerpa*

Action Team to detect existing infestations and avoid the spread of these invasive species to other systems.

2. **Vessel Operator Training**. The District shall ensure vessel operators receive training for the following aquatic disturbance avoidance measures, which apply to all project-related vessels:
    i. Avoid all contact with the sea floor to prevent impacts on eelgrass and the suspension of sediments, which can result in water quality and turbidity impacts that limit the ability for fish-foraging avian and marine wildlife species to locate prey and disrupt eelgrass productivity.
    ii. Minimize activities that direct propeller wash toward shallow areas with substrates that can be suspended and result in increased turbidity.
    iii. Operate at "Idle Speed/No Wake" in the immediate area of construction to avoid vessel interactions with marine wildlife species.
3. **Eelgrass Avoidance.** Barges or other in-water vessels shall only shade eelgrass when construction necessitates and for no longer than one tidal cycle (24 hours). Barges shall not be stored over eelgrass habitat. The vessel operator shall use a high and low tide schedule to determine barge movements and operate over eelgrass only during periods of high tide. Current eelgrass maps completed per the California Eelgrass Mitigation Policy shall be conducted within 60 days prior to construction (Mitigation Measure BIO-3), shall be provided to vessel operators to prevent contact with eelgrass or the sea floor, and shall limit the amount of shading of eelgrass in the in-water construction work area to a maximum of 30 days. No spudding shall be allowed.
4. **Turbidity Curtain.** he District shall deploy a temporary turbidity curtain around the shoreline repair and replacement area or other sediment-disturbing activity areas to restrict the visible surface turbidity plume to the area of construction. The turbidity curtain shall include a hanging ballast-weighted curtain with a surface float line and shall extend from the surface into the water column without disturbing the bottom based on the lowest tidal elevation and swing of the curtain within the water column. The turbidity curtain shall meet the specifications for design, installation, use, performance, and modification outlined in the District's Best Management Practices and Environmental Standards for Overwater Structural Repair and Maintenance Activities for Existing Port Facilities Conducted by the San Diego Unified Port District. The goal of the temporary turbidity curtain is to minimize the area in which visibility of prey by sensitive bird and marine wildlife species is obstructed and maintain a temporary barrier between construction activity and sensitive species foraging habitat.

In the event permanent loss of eelgrass due to water quality cannot be mitigated through avoidance and deployment of the turbidity curtain, the District shall implement mitigation measures for losses to eelgrass in accordance with the California Eelgrass Mitigation Policy and Mitigation Measure BIO-3.

BIO-3: Eelgrass Mitigation and Monitoring in Compliance with the California Eelgrass Mitigation Policy. The District shall comply with all requirements of the California Eelgrass Mitigation Policy (CEMP). In the event permanent eelgrass impacts occur based on a comparison of pre- and post-construction eelgrass surveys as specified in this mitigation measure, the District shall retain a qualified marine biologist, to develop an eelgrass mitigation and monitoring plan, in compliance with the CEMP to compensate for any loss of eelgrass. Included in this measure are the following requirements:

1. Prior to any in-water construction activities, a qualified marine biologist retained by the District shall conduct a pre-construction eelgrass survey within the planned activity area, including in- and overwater staging areas. Surveys for eelgrass shall be conducted during eelgrass growing season (March 1 to October 31) and results shall be valid for 60 days, unless completed in September or October, in which case,; the results will be valid until the next growing season. The District shall submit the results of the pre-construction eelgrass survey to the National Marine Fisheries Service (NMFS) and other regulatory agency points of contact as required, such as the California Coastal Commission, U.S. Army Corps of Engineers, and the San Diego Regional Water Quality Control Board.
2. Within 30 days of in-water construction completion, a qualified marine biologist retained and approved by the District shall conduct a post-construction eelgrass survey in the construction area during the eelgrass growing season (March 1 to October 31). In the event construction ends during the non-growing season (November 1 to February 28), the survey shall be delayed until the growing season resumes. The purpose of the post-construction survey is to evaluate the potential impacts to eelgrass associated with construction. Within 30 days of completion of the post-construction survey, the qualified marine biologist shall submit the survey report to the District and applicable regulatory agencies.
3. In the event impacts on eelgrass are determined, the District shall implement the following measures:
    a. A qualified marine biologist retained and approved by the District shall develop an eelgrass mitigation plan for in-kind mitigation. The plan shall be submitted to the District and NMFS for review and approval within 60 days following the post-construction survey. The plan shall include the following details:

i. As required by the CEMP, mitigation for eelgrass impacts shall be at a ratio of no less than 1.2:1.
ii. Mitigation shall commence within 135 days of documented impacts on eelgrass to ensure that mitigation occurs within the same growing season as the impacts.
iii. Mitigation performance monitoring shall be conducted by the qualified marine biologist at the following milestones: zero, 12, and 24 months.
iv. All mitigation monitoring shall be conducted by the qualified marine biologist during the active eelgrass growing season, avoiding the low growth season (November through February). All performance standards shall be in accordance with those prescribed in the CEMP.

b. The qualified marine biologist shall submit the monitoring reports (including spatial data and other CEMP-identified requirements) to the District and NMFS within 30 days of each monitoring period.
c. A minimum of 2 years of annual post-construction eelgrass surveys shall be conducted during the active eelgrass growing season. Additional annual surveys may be required at the discretion of the qualified marine biologist, the District, and NMFS.
d. In the event impacts on eelgrass are detected during the 2-year post-construction period, the District shall provide additional mitigation for eelgrass impacts by transplanting eelgrass at a restoration site within San Diego Bay or another mitigation suite determined to be suitable by NMFS and the District at a ratio of 1.2:1.

Indirect Impacts

Significant indirect impacts to sensitive wildlife species could occur during Project implementation as a result of decreased water quality, including turbidity, increased noise, new sources of lighting, and bird strikes and entanglement associated with the new buildings and barrier netting system.

Implementation of Mitigation Measures BIO-1 and BIO-2 (described under Direct Impacts) would also reduce indirect impacts to sensitive wildlife species and their foraging habitat, particularly from water quality and noise indirect impacts, to below a level of significance. Mitigation Measure BIO-1 requires monitoring by a qualified biologist, including conducting pre-construction nesting bird surveys, restricting high decibel output activities during the breeding season for birds, overseeing mitigation for noise and light impacts during construction, monitoring during in-water construction, and implementing overall compliance monitoring. Mitigation Measure BIO-2 requires in-water construction measures to reduce and avoid indirect impacts to both wildlife species and their foraging habitats (eelgrass and

shallow subtidal and moderately deep subtidal) through vessel operator training, operational methods, and deployment of a turbidity curtain. Implementation of Mitigation Measure BIO-4 would reduce potential indirect impacts to sensitive wildlife species through incorporating wildlife-safe building practices, installing net marking devices to increase the visibility of the barrier netting system, incorporating lighting features with the lowest possible color temperature and directed downward and shielded away from the waterfront into the Project design and developing and implementing a performance monitoring and adaptive management plan, including a bird entanglement response procedure.

BIO-4: Wildlife-Safe Building, Barrier Netting System, and Lighting Design Guidelines and Monitoring Performance Plan. The Topgolf Project component shall incorporate building, barrier netting system, and lighting design features to protect the safety of sensitive wildlife species. During working drawing approval, the Topgolf Project applicant shall submit the details of the Project design to the District for review and approval. In addition, the Topgolf Project applicant shall develop a monitoring performance plan, the elements of which are detailed below. The Topgolf Project applicant shall work with a qualified biologist to review the building and netting designs and assist with design guidelines.

1. The potential design guidelines shall include but not be limited to the following:
    a. Building Features:
        i. Trees and landscaping shall be placed away from buildings to minimize birds interacting with building facades.
        ii. The building facades shall be balanced with architectural features that shall include non-reflective or opaque glass surfaces, such as etched/fritted/patterned glass and ultraviolet patterned glass.
        iii. Additional features that shall be incorporated as feasible include awnings, shades, or shutters, which would reduce glass reflection, glare, and overheating.
        iv. Enclosed trash cans around the facility to prevent nuisance animals from accessing the cans.
        v. No invasive plants shall be included in Project landscaping.
    b. Barrier Netting System:
        i. The barrier netting system shall use black netting material to be visible for birds.
        ii. The barrier net shall have 1-inch-diameter mesh netting made of ultraviolet-treated polyester. Polyester material is of flexible construction and may help prevent injuries to birds. The 1-inch mesh is ideal for reducing entanglement concerns for smaller birds and is

compliant with the California Green Building (CALGreen) Bird-Friendly Design Standards.

iii. The barrier netting system shall have sealed edges (i.e., using clips, ties, tension wires, or similar components) to ensure there are no gaps between the net and the poles the netting is secured to. Preventing gaps between the netting and the poles shall ensure the barrier netting system does not provide openings for birds to perch or become entangled in.

iv. Net marking devices, such as FireFly HW or BirdMark BM-AG, shall be placed in the center of all sections of netting between support poles to form horizontal rows of bird flight diverters per manufacturer recommendations. A maximum distance of 15 vertical feet and 15 horizontal feet for FireFLy HW and 30 vertical feet by 30 horizontal feet for BirdMark BM-AG between the marking devices (per manufacturer's recommendations) shall be maintained for the entire netting structure.

v. Perch deterrent devices such as triangle- and cone-shaped pole caps or spike-type features shall be installed on the tops of all barrier netting system poles.

vi. Topgolf shall educate employees, through Topgolf's internal formal standard operating procedures and the bird entanglement response procedure (detailed in measure 2.b), on the necessary steps to take in the event that any wildlife is in distress (on site, within the outfield, along nets, or the buildings).

vii. Topgolf shall perform routine inspections of outfield nets to identify tears, rips, holes, and other damage which can lead to increased risk of entanglement both from within the outfield and along the outside perimeter. The full-time on-site facilities maintenance team, along with the in-house national barrier netting specialist, shall be trained to find potential issues before they occur and make any necessary repairs.

c. Lighting Features:

i. Proposed outdoor lighting shall implement the lowest possible color temperature that also meets public safety requirements not to exceed a correlated color temperature of 2,700 Kelvins to emit less high-frequency blue light.

ii. New outdoor lighting (with the exception of outfield lighting) shall be as low to the ground as possible to only illuminate necessary structures, directed downward and shielded away from the

waterfront to eliminate or reduce light trespass (to 0.08 foot-candles [fc] or [0.86 lux]), sky glow, and glare.

iii. Lighting fixtures not necessary for safety, entrances, business facility operations, and circulation shall use automatic controls such as timers, dimmers, or motion sensors where possible, and otherwise shall be automatically shut off by 1:00 a.m., Monday through Friday, and 2:00 a.m., Saturday and Sunday.

2. Performance Monitoring and Adaptive Management Plan:

   a. The Topgolf Project applicant shall retain a qualified biologist, approved by the District, familiar with local and migratory species to develop and implement a 3-year post-construction monitoring and adaptive management plan to evaluate the effectiveness of the building, barrier netting system, and lighting designs in preventing bird collisions. The qualified biologist shall also evaluate the effectiveness of the perch deterrent devices on the barrier netting system poles, and make recommendations to the District as needed to maintain a satisfactory level of efficacy, to be incorporated into the 3-year post-construction monitoring and adaptive management plan within 30 days of approval by the District.

   b. The monitoring plan shall include frequency of monitoring surveys, monitoring survey methods, bird-net interaction monitoring methods, methods to identify and document locations where bird strikes occur, the number of collisions, the date, the approximate time, and features that may be contributing to collisions. The monitoring plan shall also include an evaluation of the perch deterrent devices on the barrier netting system poles, including monitoring survey frequency and methods, avian predator perching occurrences and locations, the date and approximate time of the perching events, and features of the design that could be allowing avian predators to perch on the poles.

   c. The qualified biologist shall develop a bird entanglement response procedure that shall be implemented if a bird entanglement occurs to prevent bird mortality to the greatest extent possible. The response procedure shall also include contact information for a local wildlife rescue service to assist during and after an entanglement event. If any bird becomes entangled in the netting, the qualified biologist shall notify the California Department of Fish and Wildlife (CDFW) San Diego office and the U.S. Fish and Wildlife Service (USFWS) Carlsbad office within 24 hours.

d. The qualified biologist shall list potential design solutions and coordinate with Topgolf to implement adaptive management procedures in consultation with the District and resource agencies.
e. Annually over the 3-year monitoring plan, the results of the monitoring and proposed adaptive management methods shall be documented in a report and submitted to the District for review. If needed, the Topgolf Project applicant, in consultation with a qualified biologist and District, shall implement adaptive management measures to further prevent bird strikes and avian predator perching, ultimately to reduce indirect impacts from the netting and poles.

6.1.1.4 Significance after Mitigation

Sensitive Plant Species

Direct Impacts

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

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 Mitigation Measures BIO-1 through BIO-3 would mitigate potential direct impacts to sensitive foraging seabirds, shorebirds, nesting birds and raptors, sensitive roosting bats, and marine mammals to below a level of significance.

Indirect Impacts

Implementation of Mitigation Measures BIO-1, BIO-2, and BIO-4 would reduce indirect impacts to sensitive wildlife species, particularly from water quality and noise indirect impacts, to below a level of significance.

6.1.2 Threshold 2: Riparian Habitat or Other Sensitive Natural Community

6.1.2.1 Guidelines for Determination of Significance

A significant impact would result if the Project would have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by the CDFW or USFWS.

6.1.2.2 Impact Analysis

Direct Impacts

As discussed in Section 5.1, Marine Habitats and Land Cover Types, most of the Project area is composed of urban/developed land. The urban/developed land that makes up most of the Project area is not considered a sensitive natural community; thus, direct impacts to sensitive natural communities would not occur for this land cover type. The Project area and survey area do not contain riparian habitat and no direct impacts would occur from Project implementation.

Three sensitive natural communities, including eelgrass beds, shallow subtidal, and moderately deep subtidal, occur primarily within the survey buffer outside the Project area; however, a small portion of the southeastern portion of the Project area, specifically the seaplane ramp, includes these three sensitive natural communities (Figure 6). No Project construction is planned to occur at the seaplane ramp location, where the eelgrass beds, shallow subtidal, and moderately deep subtidal habitats are within the Project area. The remainder of the eelgrass beds, shallow subtidal, and moderately deep subtidal habitats occur within the survey buffer, outside the Project area. Further, eelgrass beds, shallow subtidal, and moderately deep subtidal are designated as potential EFH, as well as potential HAPC specific to eelgrass beds, under the MSA, and activities within these areas are regulated via required consultation by NOAA's NMFS (NMFS 2023). Potential direct impacts to EFH in the Project area are discussed in the following subsection.

Essential Fish Habitat

The shallow and moderately deep subtidal vegetation community present in the southern portion of the Project area is potentially designated as EFH for groundfish and coastal pelagic species by the Pacific Coast Fisheries Management Council (Appendix E). The eelgrass beds vegetation community is also EFH, as well as HAPC for groundfish and coastal pelagic species by the Pacific Coast Fisheries Management Council (Appendix E). As previously discussed, no construction is proposed in the small portion of the Project area, specifically the seaplane ramp, that occurs in shallow and moderately deep subtidal and eelgrass beds. However, shoreline repair and replacement along the southeastern edge of the Project area could result in temporary direct impacts to potential EFH and HAPC for these fish species from the temporary use of a barge (Figure 3.3-5). Therefore, impacts to EFH would be potentially significant.

As previously discussed in Section 6.1.1, an approximately 550-foot-long portion of shoreline currently lined with riprap and concrete revetment would be repaired and replaced with shoreline protective devices such as riprap and, where feasible nature-based solutions, potentially with the temporary use of a barge (Figure 10). Repair and

replacement of the shoreline is not anticipated to result in direct permanent impacts to the sensitive natural communities and designated EFH and HAPC for groundfish and coastal pelagic species, shallow subtidal and moderately deep subtidal in San Diego Bay. Similarly, no direct permanent impacts to sensitive eelgrass beds are anticipated from Project implementation. Therefore, the Project would not result in the permanent loss of shallow and moderately deep subtidal and eelgrass beds, which provide potential EFH and HAPC for groundfish and coastal pelagic species in the Pacific Coast region.

In the event that the shoreline repair and replacement requires in-water work and use of a barge, direct temporary impacts to the sensitive natural communities of eelgrass beds and shallow subtidal and moderately deep subtidal adjacent to the shoreline work area could result (Figure 10).

Temporary impacts to the sensitive natural communities of shallow subtidal and moderately deep subtidal could occur from operation of the barge; however, the barge would be removed once shoreline repair and replacement activities are completed and no permanent impacts are anticipated. Therefore, direct impacts to the shallow subtidal and moderately deep subtidal sensitive natural communities and EFH would be less than significant.

Operation of the barge during shoreline repair and replacement could result in temporary direct impacts to the sensitive natural community, eelgrass beds through direct disturbance, sedimentation, or shading that occurs for long periods of time. Therefore, direct impacts to the sensitive natural community and designated EFH and HAPC for groundfish and coastal pelagic species, eelgrass beds, would be potentially significant.

Indirect Impacts

Indirect impacts to the three sensitive natural communities that occur primarily outside the Project area, eelgrass beds, shallow subtidal, and moderately deep subtidal, could result during construction and operation of the Project and may include increased human activity, exposure to urban pollutants (fertilizers, pesticides, herbicides, and other hazardous materials), soil erosion, water quality and hydrologic changes, and trash and garbage. These potential indirect impact factors are discussed in detail in the subsections below.

Increased Human Activity

The Project includes changes to the land uses and increased public access to the waterfront within the Project area. The increased human activity in the Project area during construction and operation could result in indirect impacts to the sensitive natural communities present in the Project area in the form of invasion by invasive plant and wildlife species by accidental introduction.

The Project would be required to comply with the PMP and PMPU, which include specific goals, objectives, policies, standards, Project design guidelines, and ordinances to minimize indirect impacts to adjacent sensitive resources, including sensitive natural communities. For example, the PMPU Ecology Element ECO Policy 1.1.9 states that "planting of invasive plan species shall be prohibited in landscaped areas" (District 2024). Compliance with this policy would prohibit the inclusion of invasive plant species in the landscaping plans developed for the Project area. The Project landscaping plans would include native plants and/or low water usage California-friendly plant material, thereby complying with Policy 1.1.8. Further, the Project would be required to be consistent with the INRMP, and its principles for ecosystem management and stewardship of resources in San Diego Bay, primarily the principle of maintaining and improving the sustainability and native biodiversity of ecosystems by implementing Project design features such as nature-based solutions to shoreline protection, where feasible to reduce impacts to the sensitive natural communities in the Project area. Consistency with the PMP, PMPU, INRMP, and implementation of construction BMPs would minimize human activity-related indirect impacts to sensitive natural communities from implementation of the Project. Therefore, indirect impacts to sensitive natural communities from human activity during construction and operation of the Project would be less than significant.

Urban Pollutants

Operation of the Project would involve a limited quantity of use of potentially hazardous materials typical of commercial, retail, and restaurant uses, including cleaning fluids, detergents, solvents, adhesives, sealers, paints, fuels/lubricants, and fertilizers and/or pesticides for landscaping. The potential exposure to urban pollutants in the Project area during construction and operation could result in indirect impacts to sensitive natural communities and EFH in the form of degradation of natural habitat and impacted ecosystem health. Compliance with federal, state, and local controls is mandatory as standard permitting conditions and would minimize indirect impacts to sensitive natural communities resulting from the accidental release or upset of hazardous materials. Therefore, indirect impacts to sensitive natural communities and EFH from urban pollutants during construction and operation of the Project would be less than significant.

Soil Erosion

The potential for substantial soil erosion and loss of topsoil at the Project area due to the proposed development is low due to the site being previously developed (Ninyo and Moore 2024). However, construction of the Project may result in erosion during construction activities, as bare soils would be exposed and could be eroded by wind or water. The increase in potential for soil erosion during construction of the Project could result in indirect impacts in the form of sensitive natural community alteration.

Short-term erosion and sedimentation impacts would be addressed through conformance with applicable elements of the District stormwater program and related NPDES requirements. Specifically, this would entail conformance with the District JRMP (District 2025), as well as the NPDES Construction General Permit and the City's Grading Ordinance (SDMC Section 142.0101 et seq.). Pursuant to the discussion of construction-related water quality concerns in Section 3.8 of the EIR, this would entail implementing an approved storm water pollution prevention plan and related plans and BMPs, including appropriate measures to address erosion and sedimentation. More specifically, the Project would be subject to the State Water Resources Control Board Construction General Permit (Order 2009-0009-DWQ, as amended by Order 2010-0014-DWQ and Order 2012-006-DWQ). Specifically, this would entail conformance with the District Jurisdictional Runoff Management Program, the NPDES CGP, and the City's Grading Ordinance. Therefore, indirect impacts to sensitive natural communities from soil erosion during construction and operation of the Project would be less than significant.

Water Quality and Hydrologic Changes

Construction and operation of the Project could degrade the water quality in and surrounding the Project area through turbidity, excessive sedimentation, and flow interruptions, resulting in indirect impacts to surface and groundwater levels and quality for sensitive natural communities and EFH. Water quality degradation in the Project area could result in indirect impacts to the sensitive natural communities and EFH of eelgrass beds and shallow subtidal and moderately deep subtidal.

The Project would be required to comply with the PMP and PMPU, which include specific goals, objectives, policies, standards, Project design guidelines, and ordinances to minimize indirect impacts to adjacent sensitive habitats. For example, the PMPU Ecology Element ECO Policy 1.1.11 "encourages the use of biologically engineered stormwater solutions to prevent degradation of coastal wetlands and marine ecosystems, and to reduce stormwater pollution to [San Diego] Bay" (District 2024). The Project complies with PMPU Ecology Element ECO Policy 1.1.11 because the Project includes new storm drain infrastructure including implementation of BMPs and realignment of the two existing stormwater outfalls to prevent degradation of marine ecosystems and to reduce stormwater pollution to the Bay. See Section 3.8 of the EIR for a discussion on the Project's proposed stormwater features. In addition, PMPU Ecology Element ECO Policy 2.3.4 requires "permittees implement measures to prevent pollution impacts and adverse impacts from runoff flows from all development and maintenance activities" (District 2024). The Project complies with PMPU Ecology Element ECO Policy 2.3.4 by implementing BMPs including measures to help prevent degradation of water quality, avoid releases of construction debris and hazardous materials, limit construction

equipment idling and fugitive dust emissions, protect biological resources, and control erosion and sedimentation during construction and BMPs including stormwater runoff collection through a series of water quality basins or similar approved device for required water filtration during operation . Further, the Project would be required to be consistent with the INRMP and its guiding principles for ecosystem management and stewardship of resources in San Diego Bay, primarily the principle of maintaining and improving the sustainability and native biodiversity of ecosystems by implementing the previously discussed BMPs. Consistency with the PMP, PMPU, INRMP, and implementation of the requirements under the CGP and NPDES would minimize water quality-related indirect impacts to sensitive natural communities and EFH from implementation of the Project.

Projects proposed in the District tidelands that are greater than one acre, including the Project, are required to comply with the state's CGP and the NPDES regulations concerning water quality. The CGP requires SWPPP development and implementation, including BMPs for sediment control and erosion control, and regular inspections and reporting. Standard construction BMPs and construction-related minimization measures, such as limited exposure time of disturbed soil areas, wind-erosion control, silt fencing, and vehicle and equipment cleaning to control dust, erosion, and runoff, would be incorporated into the Project's SWPPP to reduce potential indirect water quality-related impacts associated with development of the Project. The District's BMPs and Environmental Standards for water quality would be implemented during the proposed shoreline removal and replacement, upgrades to stormwater outfalls, as well as for any existing in- and overwater structures maintenance or repairs that occur during operation of the Project (District 2019a). These BMPs and Environmental Standards include performance standards and disturbance thresholds, water quality monitoring and reporting, preventative measures like silt curtain installation, and required response actions for exceedances of standards and thresholds. Integration of the District's construction and operational BMPs and Environmental Standards would protect water quality in the Project area and surrounding San Diego Bay.

However, in the absence of measures that would avoid water quality degradation during in-water shoreline repair and replacement activities using the barge, indirect impacts to sensitive natural communities and EFH would be potentially significant.

6.1.2.3 Mitigation Measures

Direct Impacts

Significant direct temporary impacts to the sensitive natural community and EFH, eelgrass beds, could occur during shoreline repair and replacement in the event a barge is used. Implementation of Mitigation Measures BIO-2 and BIO-3 (described in Section 6.1.1) would

mitigate potential direct impacts to sensitive eelgrass beds to below a level of significance. Mitigation Measure BIO-2 requires in-water construction measures, including vessel operator training to avoid impacts on eelgrass beds from water quality and turbidity; avoidance of eelgrass beds; and the deployment of a turbidity curtain prior to the start of the in-water activities to reduce water quality impacts and to create a physical barrier around construction activities. Mitigation Measure BIO-3 would require compliance with the CEMP, including pre- and post-construction eelgrass surveys for potential in-water construction activities associated with the shoreline repair and replacement.

Indirect Impacts

Significant indirect impacts to sensitive natural communities and EFH, eelgrass beds and shallow subtidal and moderately deep subtidal, could occur during shoreline repair and replacement in the event a barge is used as a result of decreased water quality, including turbidity. Consistency with the PMP, PMPU, INRMP, and District's BMPs and Environmental Standards for water quality, as well as implementation of requirements under the state's CGP and NPDES, would minimize water quality-related indirect impacts to sensitive natural communities from implementation of the Project. Further, implementation of Mitigation Measure BIO-2 (described in Section 6.1.1) would mitigate potential indirect water quality impacts to sensitive eelgrass beds to below a level of significance through in-water eelgrass avoidance and protection measures required during construction.

6.1.2.4 Significance after Mitigation

Direct Impacts

Implementation of Mitigation Measures BIO-2 and BIO-3 would mitigate direct impacts to sensitive vegetation communities and EFH to below a level of significance.

Indirect Impacts

Implementation of Mitigation Measures BIO-2 would mitigate indirect impacts to sensitive vegetation communities and EFH to below a level of significance.

6.1.3 Threshold 3: Jurisdictional Aquatic Resources

6.1.3.1 Guidelines for Determination of Significance

A significant impact would result if the Project would have a substantial adverse effect on state or federally protected wetlands (including but not limited to marsh, vernal pool, and coastal) through direct removal, filling, hydrological interruption, or other means of disturbance.

6.1.3.2 Impact Analysis

Direct Impacts

As discussed in Section 5.2, Jurisdictional Aquatic Resources, approximately 0.39 acre of potentially jurisdictional waters occur in the southeastern portion of the Project area, specifically the seaplane ramp, with the remaining 7.55 acres outside the Project area in the survey buffer.

As discussed in Section 6.1.2, while most of the Project area is composed of urban/developed land, three jurisdictional aquatic resources, eelgrass beds, shallow subtidal, and moderately deep subtidal, occur in the southeastern portion of the Project area identified as the seaplane ramp. However, no Project construction is planned to occur in this portion of the Project area. As previously discussed, an approximately 550-foot-long portion of shoreline currently lined with riprap and concrete revetment would be repaired and replaced with shoreline protective devices such as riprap and, where feasible, nature-based adaptation strategies and nature-based solutions (Figure 10). Repair and replacement of the is not anticipated to result in direct permanent impacts to the jurisdictional aquatic resources adjacent to the Project area, including the eelgrass beds and shallow subtidal and moderately deep subtidal communities of San Diego Bay.

Potential direct temporary impacts to eelgrass beds and shallow subtidal and moderately deep subtidal areas under the jurisdiction of the USACE, RWQCB, and CCC could occur during shoreline repair and replacement activities if the use of a barge is required. Temporary impacts to the shallow subtidal and moderately deep subtidal could occur during operation of the barge; however, the barge would be removed once shoreline repair and replacement activities were completed and no permanent impacts are anticipated. Therefore, direct impacts to shallow subtidal and moderately deep subtidal jurisdictional areas would be less than significant. As discussed in Section 6.1.2, operation of the barge during shoreline repair and replacement could result in temporary direct impacts to eelgrass beds through direct disturbance, sedimentation, or shading. Therefore, direct impacts to the jurisdictional aquatic resource, eelgrass beds, would be potentially significant.

While temporary, these activities and potential impacts to jurisdictional aquatic resources, eelgrass beds, and shallow subtidal and moderately deep subtidal, resulting from Project implementation would require compliance with applicable federal and state regulations that ensure no net loss of aquatic resources, including CWA Section 401 Water Quality Certification, CWA Section 404, Section 10 of the Rivers and Harbors Act, and the CCA. The Project would be required to obtain regulatory permits under the Rivers and Harbors Act (Section 10), CWA (Sections 401 and 404), and CCA and provide resource-specific avoidance and minimization measures for temporary impacts, which would ensure that

no net loss of jurisdictional waters would result from implementation of the Project. Until the Project obtains regulatory agency permit authorizations to prove compliance with federal, state and local regulatory requirements, direct impacts to potentially jurisdictional aquatic resources from implementation of the Project would be potentially significant.

Indirect Impacts

The indirect impacts to sensitive vegetation communities described in Section 6.1.2 including increased human activity, exposure to urban pollutants (fertilizers, pesticides, herbicides, and other hazardous materials), soil erosion, water quality and hydrologic changes, and trash and garbage, also result in potentially significant indirect impacts to jurisdictional aquatic resources. Refer to the detailed discussion of indirect impacts analysis in Section 6.1.2.

6.1.3.3 Mitigation Measures

Direct Impacts

Significant direct temporary impacts to jurisdictional aquatic resources could occur during shoreline repair and replacement in the event a barge is used. Implementation of Mitigation Measures BIO-2, BIO-3, (described in Section 6.1.1) and BIO-5 would mitigate potential direct impacts to jurisdictional aquatic resources to below a level of significance. Mitigation Measure BIO-2 requires in-water construction measures, including vessel operator training to avoid impacts on eelgrass beds from water quality and turbidity; avoidance of eelgrass beds; and the deployment of a turbidity curtain prior to the start of the in-water activities to reduce water quality impacts and to create a physical barrier around construction activities. Mitigation Measure BIO-3 would require compliance with the CEMP, including pre- and post-construction eelgrass surveys for potential in-water construction activities associated with the shoreline repair and replacement. Mitigation Measure BIO-5 would reduce direct temporary impacts to jurisdictional aquatic resources through obtaining regulatory agency permits.

BIO-5: Jurisdictional Aquatic Resources Permitting. Prior to any in-water Project construction activities, the District shall consult with the appropriate regulatory agencies, including but not limited to, the U.S. Army Corps of Engineers (under Clean Water Act Section 404 and Section 10 of the River and Harbors Act), the Regional Water Quality Control Board (under Clean Water Act Section 401), and California Coastal Commission, to authorize potential impacts. The District shall secure and send proof of all required regulatory permits prior to the commencement of in-water construction.

Indirect Impacts

Significant indirect impacts to jurisdictional aquatic resources could occur during shoreline repair and replacement in the event a barge is used as a result of decreased water quality, including turbidity. Implementation of Mitigation Measure BIO-2 (described in Section 6.1.1) would mitigate potential indirect impacts to jurisdictional aquatic resources to below a level of significance through in-water eelgrass avoidance and protection measures required during construction.

6.1.3.4 Significance after Mitigation

Direct Impacts

Implementation of Mitigation Measures BIO-2, BIO-3, and BIO-5 would mitigate potential direct impacts to jurisdictional aquatic resources to below a level of significance.

Indirect Impacts

Implementation of Mitigation Measure BIO-2 would mitigate potential impacts to jurisdictional aquatic resources to below a level of significance.

6.1.4 Threshold 4: Wildlife Corridors and Habitat Linkages

6.1.4.1 Guidelines for Determination of Significance

A significant impact would occur 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, or impede the use of native wildlife nursery sites.

6.1.4.2 Impact Analysis

Direct Impacts

As discussed in Section 5.4.10, the Project area is unlikely to be used as a terrestrial wildlife movement corridor because the available nesting, roosting, and foraging habitat is limited to ornamental vegetation and structures. However, the Project area may support local movement for small and medium terrestrial species and function as a stopover for migrating birds. The Project area's proximity to San Diego Bay and connection to the Pacific Coast and open waters to the west provide value for migrating birds, especially waterfowl, moving through the Pacific Flyway. Further, the marine habitats in the south-central edge of the Project area have the potential to provide a movement corridor for marine wildlife species, including marine mammals, sensitive green sea turtles, and anadromous fish species, both locally and regionally.

Most of the Project impacts are proposed within existing urban/developed land that provides limited movement opportunities for wildlife (Section 6.1.6; Figure 10). The existing wildlife corridors occur within the marine habitats primarily in the survey buffer, outside the Project area, and would remain in place during and after implementation of the Project. Further, the temporary impacts to the marine habitats from changes to hydrology and water quality in the south-central portion of the Project area are small relative to the size of the movement corridor provided by San Diego Bay. The large size of the San Diego Bay and its connectivity to the available marine habitats of the Pacific Ocean compared to what is provided by the Project area reduces the likelihood that Project activities would restrict movement of marine species, even temporarily.

As previously discussed under Threshold 1, the Project includes the construction of new buildings and a barrier netting system that would exceed the height of the existing buildings in the Project area, potentially reducing the movement of birds through the Project area and resulting in an increase in bird strikes and entanglements. New sources of nighttime lighting would also be introduced from implementation of the Project. Based on data provided by the USFWS (USFWS 2025c; 2025d), during the daytime, birds mistakenly fly toward reflections in glass and at night are attracted to artificial lights drawing them closer to windows and other lit structures. Additionally, disruptions in wildlife behaviors from lights, such as disorientation, and attraction to or evasion of lights could lead to bird strikes.

The new structures and lighting, and the potential for bird strikes and entanglements, could interfere with the ability for this area to continue to function as a wildlife movement corridor and habitat linkage because it could cause a significant impact to the sensitive wildlife species (Cooper's hawk, California horned lark, double-crested cormorant, and California least tern) that could potentially use the Project site as mitigation and movement corridors. The new structure and lighting could also interfere with the movement of other bird species through this area, both migratory and resident, including species protected by the MBTA. Direct impacts to migratory and non-migratory birds in the form of injury or mortality from collisions with the new buildings and structures (including the proposed netting system), including behavior disruption from new sources of lighting, would result from implementation of the Project. Therefore, direct impacts to wildlife corridors, habitat linkages, and movement of migratory and resident bird species would be potentially significant.

Indirect Impacts

Wildlife movement corridors and habitat linkages would be impacted by some of the indirect effects discussed in Section 6.1.1, such as increased human activity, water quality, increased noise levels, as well as generation of trash and garbage. As discussed

under Threshold 1, the Project would be required to be consistent with the PMP and PMPU, such as the PMPU Ecology Element ECO Policy 1.1.7, which requires "development adjacent to habitat areas occupied by threatened or endangered species shall be in compliance with the federal and California Endangered Species Acts and shall be implemented to protect the health and survival of the species." Compliance with this policy would prohibit construction personnel or the public from harming or harassing federally and state-protected species that may be utilizing the Project area as a migratory or movement corridor. The Project would comply with the federal and California Endangered Species Acts, thereby complying with ECO Policy 1.1.7 and reducing potential indirect impacts to wildlife movement corridors from increased human activity in the Project area. Additional project features, such as the potential use of nature-based solutions for shoreline repair and replacement, would comply with PMPU Ecology Element ECO Policy 1.1.17, which prioritizes "the use of nature-based solutions composed of natural or sustainable materials that increase shoreline biodiversity and coastal resiliency[. . .]." Compliance with ECO Policy 1.1.17 supports the functionality of the marine habitats in the Project area as movement corridors for marine species.

Further, the Project would be required to be consistent with the INRMP, as discussed in Section 6.1.3, and its principles for ecosystem management and stewardship of resources in San Diego Bay.

As previously discussed under Threshold 1, projects proposed in the District that are greater than one acre are required to comply with the state's CGP and the NPDES regulations. The CGP requires SWPPP development and implementation, including BMPs for sediment control and erosion control, and regular inspections and reporting. Standard construction BMPs and construction-related minimization measures, such as limited exposure time of disturbed soil areas, wind-erosion control, silt fencing, and vehicle and equipment cleaning to control dust, erosion, and runoff, would be incorporated into the SWPPP to reduce potential water quality-related indirect impacts associated with development of the Project. Integration of the District's construction BMPs and Environmental Standards would reduce the noise and vibration emitted during construction of the Project. Standard construction BMPs and construction-related minimization measures, such as requiring trash and garbage control and removal, would be incorporated into the Project. Consistency with the PMP, PMPU, INRMP, and requirements under the CGP and NPDES would minimize indirect impacts to wildlife corridors and habitat linkages from implementation of the Project. Therefore, indirect impacts to wildlife corridors and habitat linkages during construction activities and operation of the Project would be less than significant.

6.1.4.3 Mitigation Measures

Direct Impacts

Significant indirect impacts to wildlife movement corridors and habitat linkages, specifically migratory birds, could result during Project implementation from increased lighting and bird strikes on the new buildings and the barrier netting system. Implementation of Mitigation Measure BIO-4, described in Section 6.1.1, would reduce potential direct impacts to migratory birds through incorporating wildlife-safe building features, installing net marking devices to increase the visibility of the barrier netting system, and incorporating lighting features with the lowest possible color temperature and directed downward and shielded away from the waterfront into the Project design and developing and implementing a performance monitoring and adaptive management plan, including a bird entanglement response procedure. Implementation of Mitigation Measure BIO-4 would mitigate potential direct impacts to wildlife movement corridors and habitat linkages, specifically migratory birds, to below a level of significance.

Indirect Impacts

No mitigation is required.

6.1.4.4 Significance after Mitigation

Direct Impacts

Implementation of Mitigation Measure BIO-4 would mitigate potential direct impacts to wildlife movement corridors and habitat linkages, specifically migratory birds, to below a level of significance. Mitigation Measure BIO-4 would require the Project to incorporate wildlife-safe building, barrier netting system, and lighting features into its design to reduce mortality of migratory species from increased lighting and bird strikes on the new buildings and barrier netting system and implement a performance monitoring plan.

Indirect Impacts

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

6.1.5 Threshold 5: Local Policies or Ordinances

6.1.5.1 Guidelines for Determination of Significance

A significant impact would result if the Project would conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

6.1.5.2 Impact Analysis

The Project would not conflict with local policies and ordinances protecting biological resources in the PMP, PMPU, and INRMP. Section 3.3 outlines the PMP, PMPU, and INRMP goals and policies related to biological resources and implementation of the Project, such as PMP Goals VIII and XI and PMPU ECO Goals 1 and 2.

As discussed in Section 6.1.1, the Project would not result in significant direct or indirect impacts to sensitive plant species. The Project's potential direct and indirect impacts to sensitive wildlife species, specifically seabirds, shorebirds foraging and nesting birds and raptors, roosting bats, and marine mammals, are potentially significant before implementation of mitigation measures. Therefore, with implementation of Mitigation Measures BIO-1 through BIO-4, direct and indirect impacts to sensitive seabirds, shorebirds, foraging and nesting birds and raptors, roosting bats, and marine mammals would be fully mitigated to a less than significant level. With implementation of Mitigation Measures BIO-1 through BIO-4, the Project would not conflict with PMP Goal XI, PMPU Ecology Element Goals 1 and 2, or INRMP guiding principles regarding the protection of sensitive wildlife species and sensitive vegetation communities in the District.

As discussed in Section 6.1.2, the Project's potential direct permanent and temporary impacts to sensitive vegetation communities, specifically shallow subtidal, and moderately deep subtidal would be less than significant, and no mitigation measures would be required. No permanent impacts to sensitive vegetation communities would result from Project implementation. Therefore, the Project would not conflict with PMP Goal XI, PMPU Ecology Element Goals 1 and 2, and INRMP guiding principles regarding protection of jurisdictional aquatic resources in the District.

As discussed in Section 6.1.3, the Project's potential direct and indirect impacts to jurisdictional aquatic resources, specifically eelgrass beds and shallow subtidal and moderately deep subtidal, would require compliance with applicable federal and state regulations that ensure no net loss of aquatic resources, including CWA Section 401 Water Quality Certification, CWA Section 404, Section 10 of the Rivers and Harbors Act, and the CCA. The Project would be required to obtain regulatory permits under the Rivers and Harbors Act (Section 10), CWA (Sections 401 and 404), and CCA and provide resource-specific avoidance and minimization measures for temporary impacts, which would ensure that no net loss of jurisdictional waters would result from implementation of the Project. Until the Project obtains regulatory agency permit authorizations to prove compliance with federal, state, and local regulatory requirements, direct impacts to potentially jurisdictional aquatic resources from implementation of the Project would be potentially significant.

However, with implementation of Mitigation Measures BIO-1, BIO-2, BIO-3, and BIO-5, direct impacts to potentially jurisdictional aquatic resources would be fully mitigated to a less than significant level. Mitigation Measure BIO-1 requires monitoring by a qualified biologist responsible for conducting pre-construction nesting bird surveys; overseeing mitigation for noise and light impacts during construction; implementing protection and avoidance measures for foraging seabirds, shorebirds, and marine mammals in the shoreline repair and replacement area; clearing roosting bats from trees and structures prior to construction activities; providing a worker education program; and completing monitoring and reporting requirements. Mitigation Measure BIO-2 requires in-water construction measures, including vessel operator training to avoid impacts on eelgrass beds from water quality and turbidity; avoidance of eelgrass beds; and the deployment of a turbidity curtain prior to the start of the in-water activities to reduce water quality impacts and to create a physical barrier around construction activities. Mitigation Measure BIO-3 would require compliance with the CEMP, including pre- and post-construction eelgrass surveys for potential in-water construction activities associated with the shoreline repair and replacement. Mitigation Measure BIO-5 would reduce direct temporary impacts to jurisdictional aquatic resources through obtaining regulatory agency permits. With implementation of Mitigation Measures BIO-1 through BIO-5, the Project would not conflict with PMP Goal XI, PMPU Ecology Element Goals 1 and 2, and INRMP guiding principles regarding protection of jurisdictional aquatic resources in the District.

As discussed in Section 6.1.4, the Project's potential direct impacts to wildlife corridors for migratory birds are potentially significant before implementation of mitigation measures. However, with implementation of Mitigation Measure BIO-4, direct permanent and temporary impacts to wildlife corridors and habitat linkages would be mitigated to a less than significant level. Mitigation Measure BIO-4, would ensure that the Project is consistent with PMP Goal XI, PMPU Ecology Element Goals 1 and 2, and INRMP guiding principles regarding protection of wildlife corridors and habitat linkages in the District by incorporating wildlife-safe building practices, bird-safe features to the barrier netting system, lighting features into the Project design, and developing and implementing a performance monitoring plan, including a bird entanglement response procedure.

Before mitigation, the Project could result in conflicts with local policies or ordinances protecting biological resources, resulting in a potentially significant impact.

6.1.5.3 Mitigation Measures

Implementation of Mitigation Measures BIO-1 through BIO-5 would mitigate direct and indirect impacts to biological resources, specifically seabirds, shorebirds, foraging and nesting birds and raptors, roosting bats, marine mammals, sea turtles, and jurisdictional

aquatic resources, to below a level of significance, thereby resulting in the Project's consistency with local policies or ordinances.

6.1.5.4 Significance after Mitigation

Implementation of Mitigation Measures BIO-1 through BIO-5 would mitigate direct and indirect impacts to biological resources, specifically foraging birds, raptors, seabirds, shorebirds, nesting birds and raptors, roosting bats, marine mammals, and jurisdictional aquatic resources, to below a level of significance, thereby resulting in the Project's compliance with local policies or ordinances.

6.1.6 Threshold 6: Regional Conservation Planning

6.1.6.1 Guidelines for Determination of Significance

A significant impact would result if the Project would conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan.

6.1.6.2 Impact Analysis

As discussed in Section 3.3, the Project area is within the District and not subject to the City Multiple Species Conservation Program Subarea Plan, and the District is not an enrolled agency in the NCCP Program. Therefore, implementation of the Project would not result in conflicts with any applicable conservation plans. There would be no impact.

6.1.6.3 Mitigation Measures

No mitigation is required.

6.1.6.4 Significance after Mitigation

No impacts from conflicts with any applicable Regional Conservation Plans were determined to occur, and no mitigation is required.

6.1.7 Cumulative Impacts

6.1.7.1 Cumulative Threshold 1: Candidate, Sensitive, or Special-Status Species

The geographic context for this analysis of cumulative impacts to sensitive plant and wildlife species includes nearby surrounding areas with similar biological resources. A cumulatively significant impact would result if the Project, in combination with cumulative projects under the PMP, PMPU, and San Diego Association of Governments (SANDAG) 2021 Regional Pla, and cumulative projects listed in Table 3-1, Cumulative Projects, in

Chapter 3, Environmental Analysis, of the EIR, would result in direct or indirect substantial adverse impacts to sensitive plant and wildlife species, including loss of habitat.

Cumulative projects proposed in the District would have the potential to impact both areas of developed land and aquatic habitats, similar to the Project. As a result of these cumulative projects' presumed compliance with CEQA's requirement to identify and mitigate potential impacts to sensitive plant and wildlife species, and requirements to comply with the PMP, PMPU, INRMP, and the state's CGP and the NPDES regulations, these projects would not contribute to a significant cumulative condition.

The Project would have a significant impact to sensitive species prior to mitigation, as discussed above in Section 6.1.1. Implementation of Mitigation Measures BIO-1 through BIO-4 would reduce the Project's direct and indirect impacts to sensitive wildlife species, specifically seabirds, shorebirds, foraging and nesting birds and raptors, roosting bats s, and marine mammals to a less than significant level. The Project will also comply with the regulatory requirements listed above. For these reasons, the Project's incremental impact, considered in combination with other cumulative projects in the District, would not be cumulatively considerable.

6.1.7.2 Cumulative Threshold 2: Riparian Habitat or Other Sensitive Natural Community

The geographic context for this analysis of cumulative impacts to riparian habitat or other sensitive natural communities includes nearby surrounding areas with similar biological resources. A cumulatively significant impact would result if the Project, in combination with cumulative projects under the PMP, PMPU, and San Diego Association of Governments (SANDAG) 2025 Regional Plan, and cumulative projects listed in Table 3-1 in Chapter 3 of the EIR, would result in direct or indirect substantial adverse impacts to riparian habitats. The cumulative projects under the PMP, PMPU, and SANDAG 2025 Regional Plan and projects listed in Table 3-1 of the EIR would be sited near such habitat and sensitive natural communities, and as a result, would likely result in a cumulatively significant impact. However, as a result of these cumulative projects' presumed compliance with CEQA's requirement to identify and mitigate potential impacts to riparian habitat or other sensitive natural communities, and requirements to comply with the PMP, PMPU, INRMP, and the state's CGP and the NPDES regulations, these projects would not contribute to a significant cumulative condition.

As discussed in Section 6.1.2, the Project would have a potentially significant impact on sensitive marine habitats, including those designated as EFH and HAPC for groundfish and coastal pelagic species, prior to mitigation. Direct and indirect impacts to sensitive marine habitats and EFH would be reduced to a less than significant level through

implementation of Mitigation Measures BIO-2 and BIO-3. Thus, the Project's incremental impact to sensitive marine habitats and EFH, considered in combination with other cumulative projects in the District, would not be cumulatively considerable.

6.1.7.3 Cumulative Threshold 3: Jurisdictional Aquatic Resources

The geographic context for this analysis of cumulative impacts to state or federally protected wetlands includes nearby surrounding areas with similar biological resources. A cumulatively significant impact would result if the Project, in combination with cumulative projects under the PMP, PMPU, and SANDAG 2025 Regional Plan, and cumulative projects listed in Table 3-1 Cin Chapter 3 of the EIR, would result in direct or indirect substantial adverse impacts to jurisdictional aquatic resources. The cumulative projects under the PMP, PMPU, and SANDAG 2025 Regional Plan and projects listed in Table 3-1 of the EIR would be sited near wetlands, and as a result, would likely result in a cumulatively significant impact. However, as a result of these cumulative projects' presumed compliance with CEQA's requirement to identify and mitigate potential impacts to state or federally protected wetlands, and requirements to comply with the PMP, PMPU, INRMP, the state's CGP and the NPDES regulations, and applicable federal and/or state regulations under the CWA Section 401 Water Quality Certification, CWA Section 404, Section 10 of the Rivers and Harbors Act, and the CCA that ensure no net loss of resources, these projects would not contribute to a significant cumulative condition.

As discussed in Section 6.1.3, the Project would have a potentially significant impact on jurisdictional aquatic resources prior to mitigation. Direct and indirect impacts to jurisdictional aquatic resources would be reduced to a less than significant level through implementation of Mitigation Measures BIO-2, BIO-3, and BIO-5. Thus, the Project's incremental impact to jurisdictional aquatic resources, considered in combination with other cumulative projects in the District, would not be cumulatively considerable.

6.1.7.4 Cumulative Threshold 4: Wildlife Corridors and Habitat Linkages

The geographic context for this analysis of cumulative impacts to the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors includes nearby surrounding areas with similar biological resources. A cumulatively significant impact would result if the Project, in combination with cumulative projects under the PMP, PMPU, and SANDAG 2025 Regional Plan, and cumulative projects listed in Table 3-1 in Chapter 3 of the EIR, would result in direct or indirect substantial adverse impacts to wildlife corridors and habitat linkages. The cumulative projects under the PMP, PMPU, and SANDAG 2025 Regional Plan and projects listed in Table 3-1 of the EIR would be sited near such corridors, and as a result, would likely result in a cumulatively significant impact. However, as a result of these cumulative

projects' presumed compliance with CEQA's requirement to identify and mitigate potential impacts to the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, and requirements to comply with the PMP, PMPU, INRMP, and the state's CGP and the NPDES regulations, these projects would not contribute to a significant cumulative condition.

As discussed in Section 6.1.4, the Project is not expected to result in significant long-term direct impacts on wildlife corridors and habitat linkages because the overall habitat quality of the existing corridors would be maintained following Project implementation. However, direct impacts to migratory birds in the form of mortality from collisions with the new buildings and netting structures, including new sources of lighting, would result from implementation of the Project, leading to a potentially significant impact. Through implementation of Mitigation Measure BIO-4, the Project would reduce direct impacts to wildlife corridors for migratory birds to a less than significant level. Thus, the Project's incremental impact to the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors would not be cumulatively considerable.

6.1.1 Cumulative Threshold 5: Local Policies and Ordinances

The geographic context for this analysis of cumulative impacts related to potential conflicts with any local policies or ordinances protecting biological resources includes nearby surrounding areas with similar biological resources. A cumulatively significant impact would result if the Project, in combination with development projections under the PMP, PMPU, and SANDAG 2025 Regional Plan, and cumulative projects listed in Table 3-1 in Chapter 3 of the EIR, would result in conflicts to local policies and ordinances. The cumulative projects under the PMP, PMPU, and SANDAG 2025 Regional Plan and projects listed in Table 3-1 of the EIR would be sited near sensitive resources, and as a result, would likely result in a cumulatively significant impact. However, these cumulative projects are presumed to comply with CEQA's requirement to identify and mitigate potential impacts related to potential conflicts with any local policies or ordinances protecting biological resources, and requirements to comply with the PMP, PMPU, INRMP, and the state's CGP and the NPDES regulations. Further, adjacent and nearby jurisdictions, including the City and County, would be required to comply with applicable local policies or ordinances. As a result, these projects would not contribute to a significant cumulative condition.

As discussed in Section 6.1.5, the Project would comply with local policies and ordinances protecting biological resources in the PMP, PMPU, and INRMP, as well as the state's CGP and the NPDES regulations. A significant impact associated with a conflict with a local policy or ordinance would not occur. Therefore, the Project's incremental

contribution, considered in combination with other cumulative projects, would not be cumulatively considerable.

6.1.1.1 Cumulative Threshold 6: Regional Conservation Planning

The geographic context for this analysis of cumulative impacts related to potential conflicts with local, regional, or state conservation would be areas covered by local, regional, or state Habitat Conservation Plan. As discussed in Section 6.1.6, the Project is not subject to Regional Conservation Plans, and the District is not an enrolled agency in the NCCP Program. Therefore, Project implementation would not result in conflicts with Regional Conservation Plans and would not contribute to a significant impact related to such conflicts.

Cumulative projects under the PMP, PMPU, and SANDAG 2025 Regional Plan and projects listed in Table 3-1 in Chapter 3 of the EIR not on District lands may have conflicts with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state Habitat Conservation Plan. Cumulative projects would be required to comply with the applicable biological resources conservation goals of applicable local, regional, or state Habitat Conservation Plans. As a result, these projects would not contribute to a significant cumulative condition.

Therefore, the Project's incremental contribution, considered in combination with other cumulative projects, would not result in a cumulatively considerable impact regarding regional conservation planning.

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Appendix A. Figures

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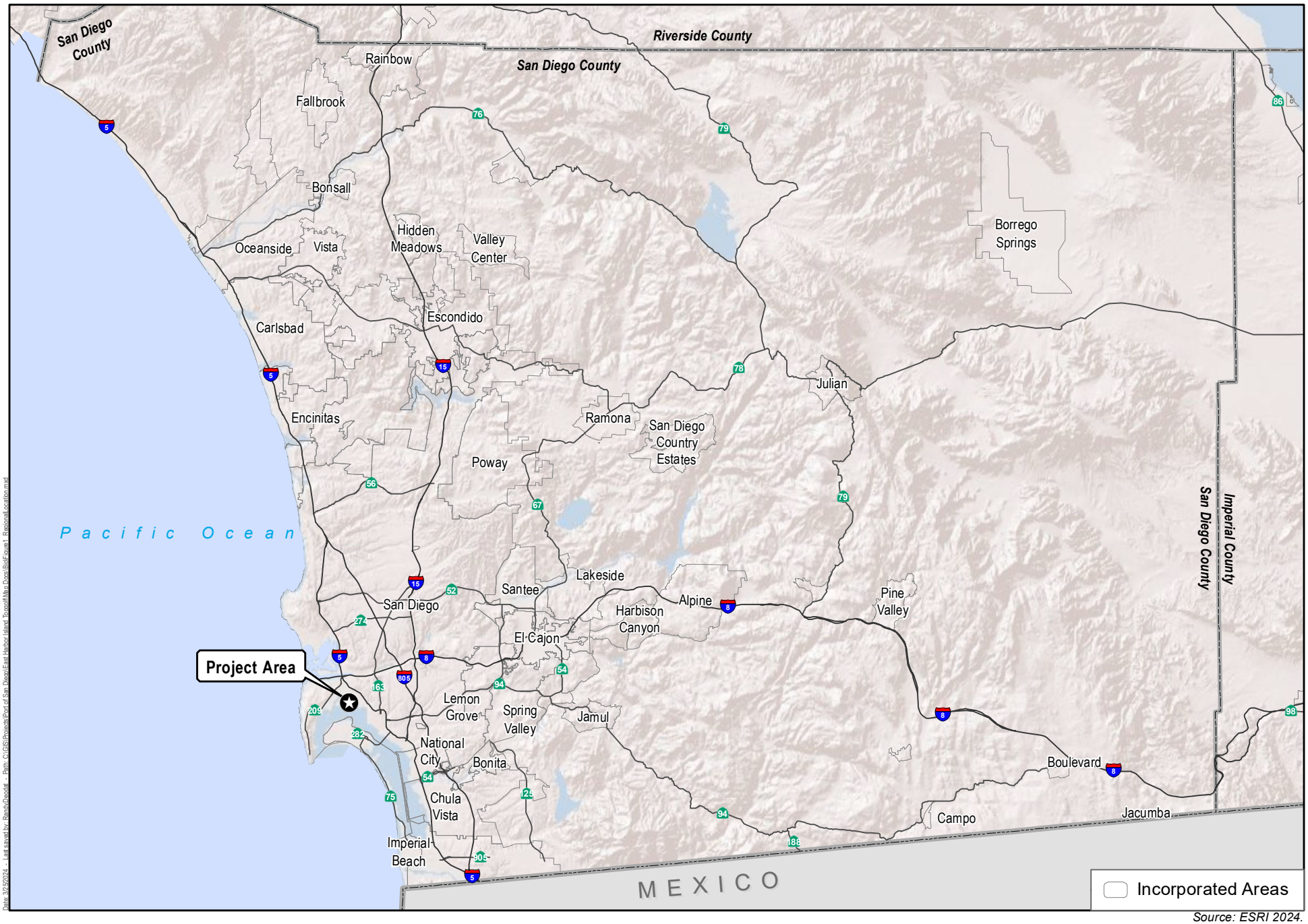

Source: ESRI 2024.

Harris & Associates

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Miles

Figure 1

Regional Location

East Harbor Island Redevelopment/Topgolf and Waterfront Park Project



Source: Maxar Imagery 2022.

Harris & Associates

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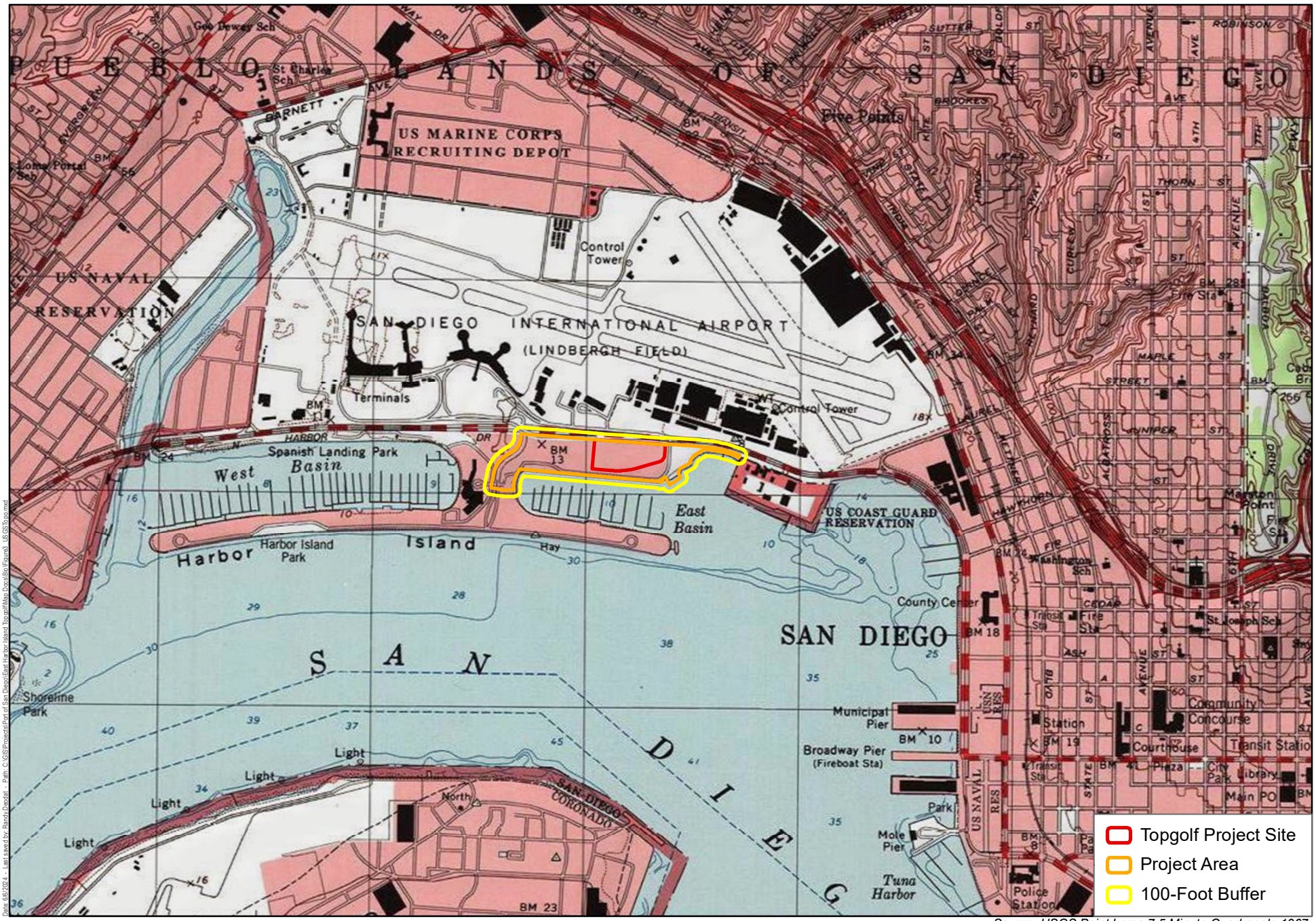
Figure 2

Survey Area

East Harbor Island Redevelopment/Topgolf and Waterfront Park Project



Source: USGS Point Loma 7.5 Minute Quadrangle 1967.

Harris & Associates

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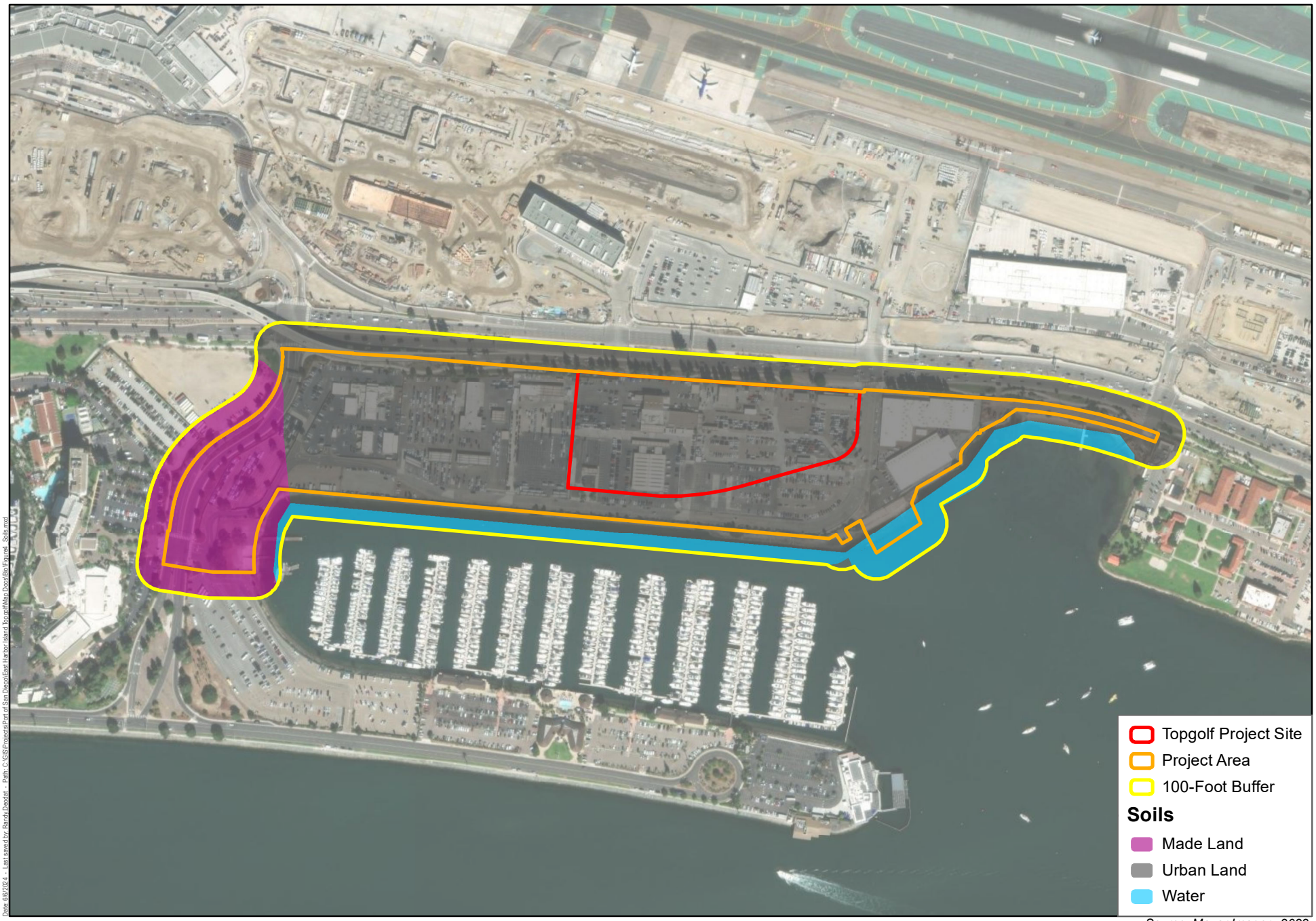
Figure 3

USGS Topographic Map

East Harbor Island Redevelopment/Topgolf and Waterfront Park Project



Source: Maxar Imagery 2022.

Harris & Associates

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Figure 4

Soils

East Harbor Island Redevelopment/Topgolf and Waterfront Park Project



Source: USFWS 2023; USGS 2023; Maxar Imagery 2022.

Harris & Associates

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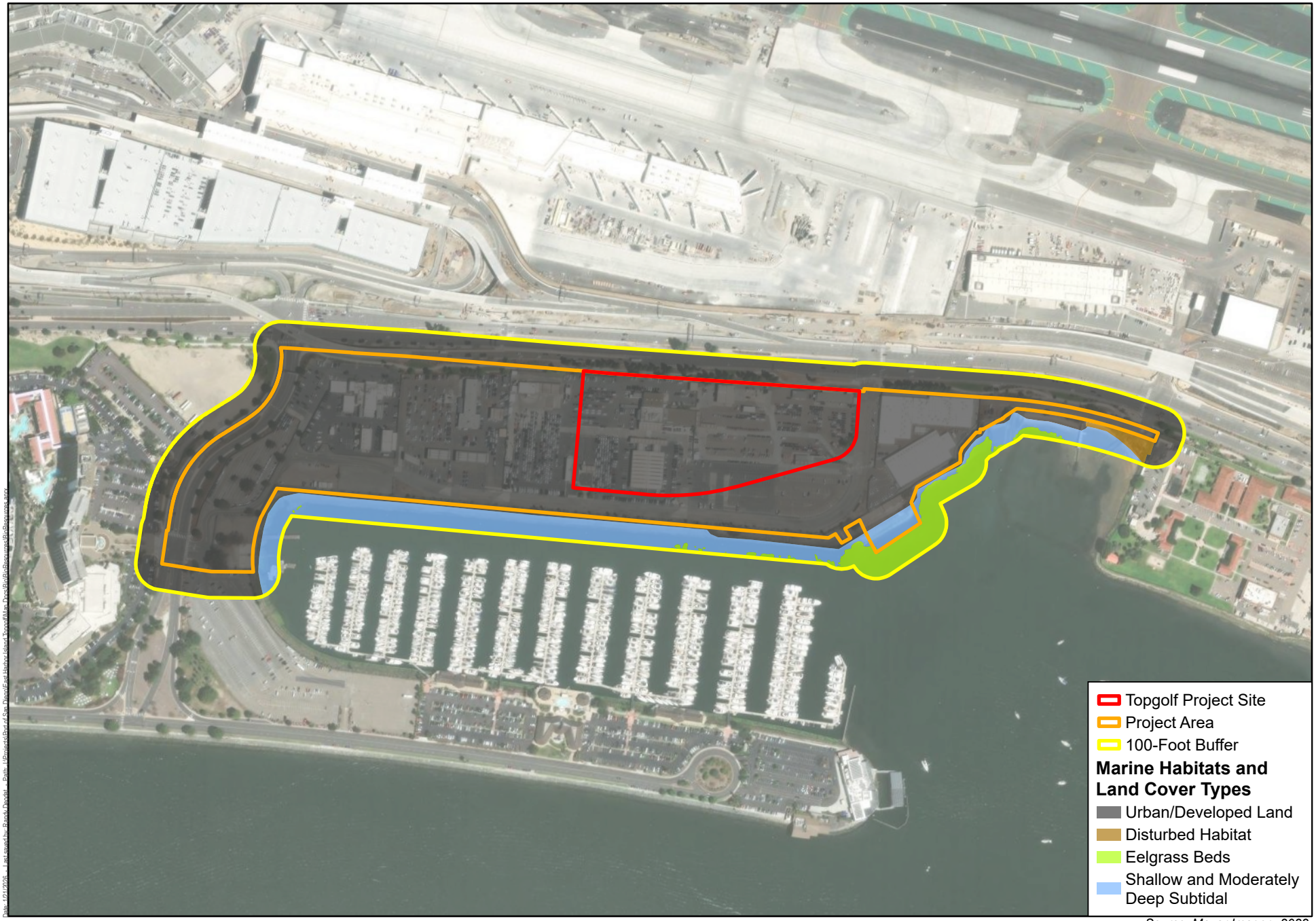
Figure 5

Hydrology

East Harbor Island Redevelopment/Topgolf and Waterfront Park Project



Source: Maxar Imagery 2022.

Harris & Associates

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Figure 6

Marine Habitats and Land Cover Types

East Harbor Island Redevelopment/Topgolf and Waterfront Park Project



Date: 10/23/2025 - Last saved by: Matthew Dornbach - Path: J:\Projects\Port of San Diego\East Harbor Island Topgolf\Mxds\Docs\BioResources\Impacts BioResourceImpacts.aprx

Source: ESRI, 2023.

Harris & Associates

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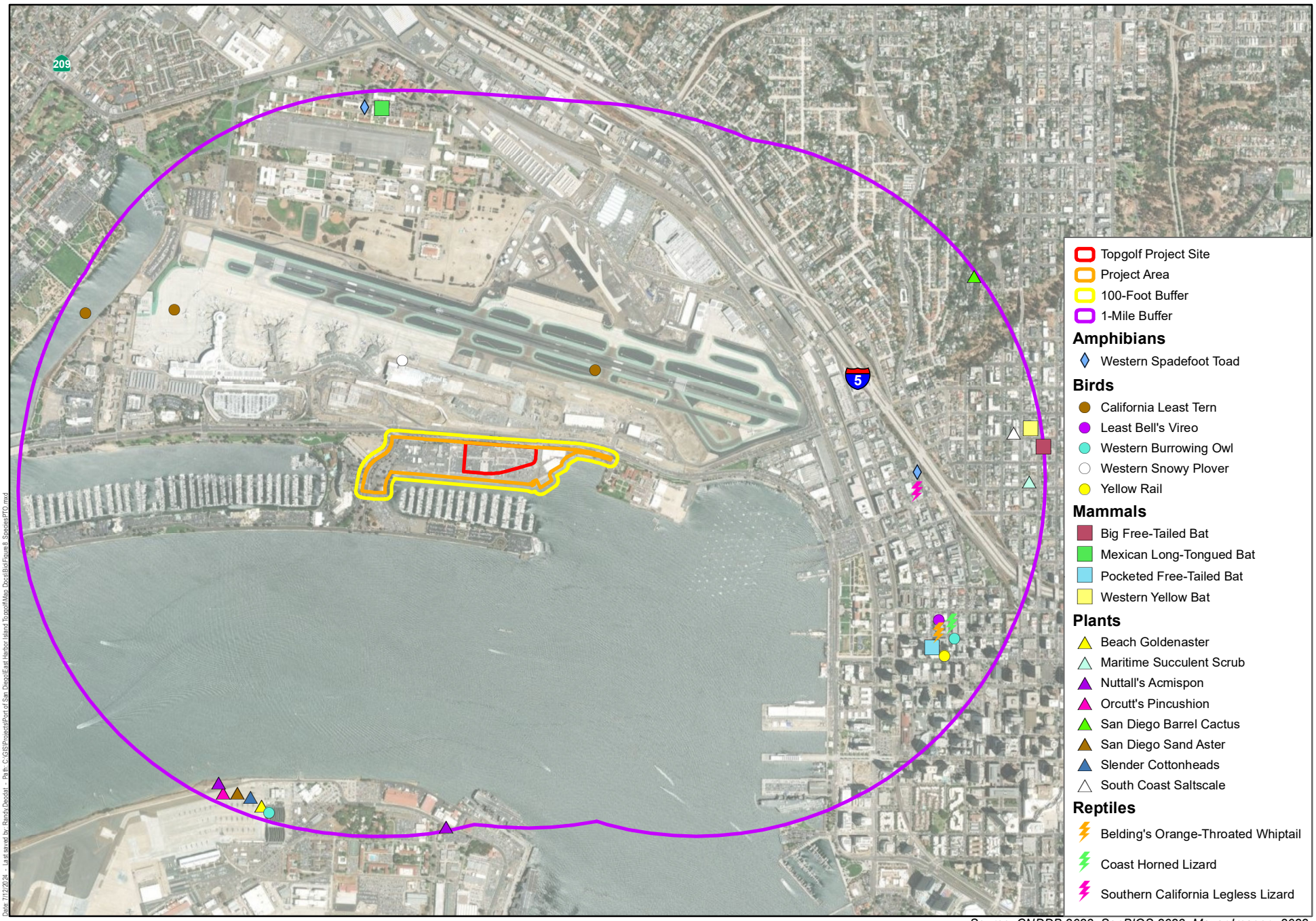
Figure 7

Potentially Jurisdictional Aquatic Resources

East Harbor Island Redevelopment/Topgolf and Waterfront Park Project



Source: CNDDB 2023; SanBIOS 2023; Maxar Imagery 2022.

Harris & Associates

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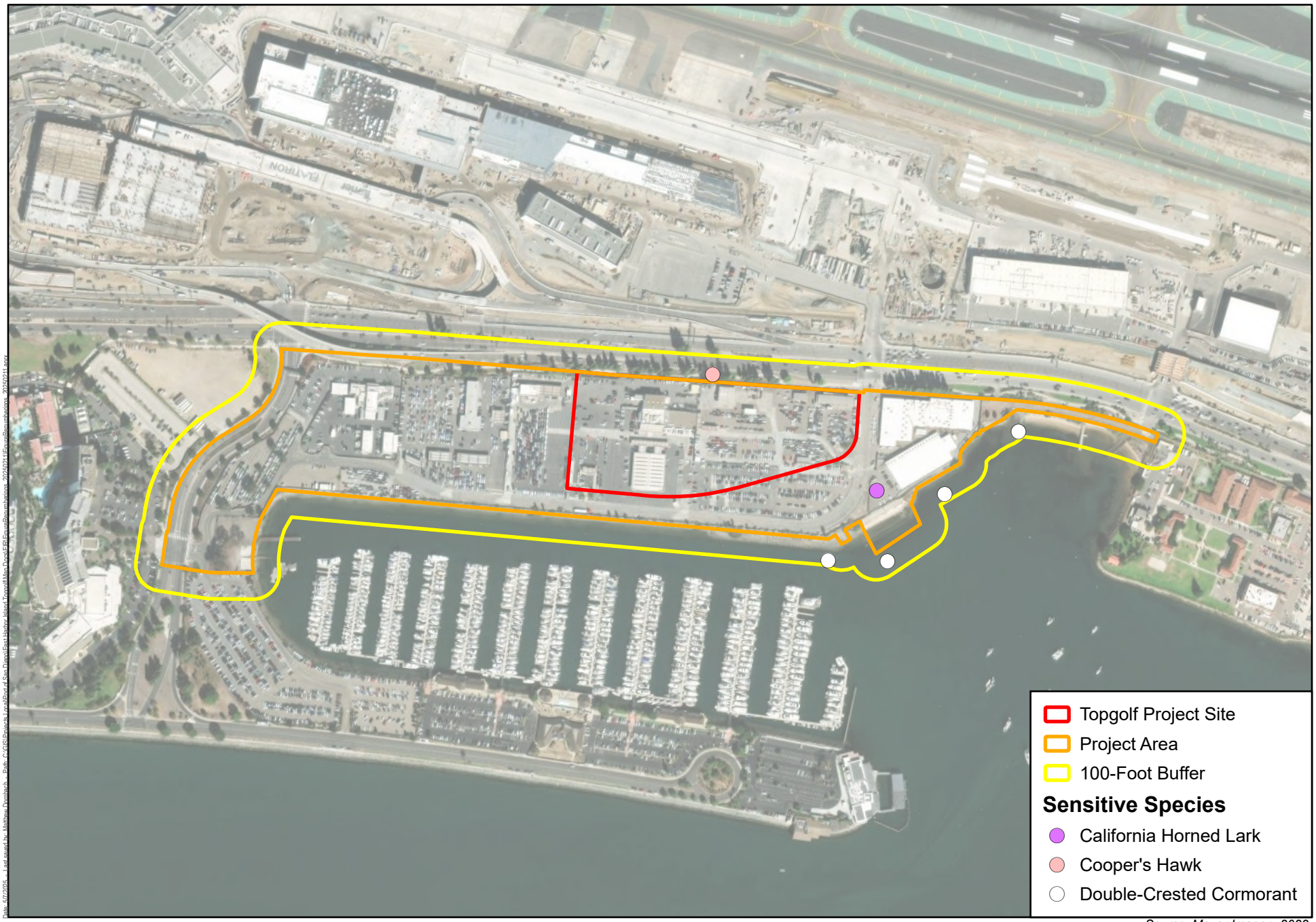
Figure 8

Sensitive Species with Potential to Occur

East Harbor Island Redevelopment/Topgolf and Waterfront Park Project



Source: Maxar Imagery 2022.

Harris & Associates

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Figure 9

Sensitive Species Observed

East Harbor Island Redevelopment/Topgolf and Waterfront Park Project



Source: Maxar Imagery 2022.

Harris & Associates

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Figure 10

Biological Resource Impacts

East Harbor Island Redevelopment/Topgolf and Waterfront Park Project

Appendix B. Plant and Wildlife Species Observed

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Plant Species Observed

	Scientific Name	Common Name	Special Status
	GYMNOSPERMS		
	Cupressaceae – Cypress family		
	Juniperus sp.	Juniper	
	Cycadaceae – Cycad family		
*	*Cycas revoluta*	Sago palm	
	Pinaceae – Pine family		
*	*Pinus canariensis*	Canary Island pine	
	EUDICOTS		
	Adoxaceae – Moschatel family		
*	*Viburnum tinus*	Spring bouquet laurustinus	
	Altingiaceae – Sweetgum family		
	Liquidambar sp.	Sweetgum	
	Amaranthaceae – Amaranth family		
	Salsola sp.	Saltwart	
	Anacardiaceae – Sumac family		
*	*Schinus terebinthifolius*	Brazilian pepper tree	
	Apocynaceae – Dogbane family		
*	*Carissa macrocarpa*	Natal plum	
	Araliaceae – Ginseng family		
*	*Hedera helix*	English ivy	
	Asteraceae – Sunflower family		
	Baccharis pilularis ssp. *pilularis*	Coyote brush	
	Baccharis salicifolia ssp. *salicifolia*	Mule fat	
	Baccharis sarothroides	Broom baccharis	
*	*Centaurea* sp.	Starthistle	
	Heterotheca grandiflora	Telegraph weed	
*	*Lactuca serriola*	Prickly lettuce	
*	*Taraxacum officinale*	Common dandelion	
	Bignoniaceae – Bignonia family		
*	*Jacaranda mimosifolia*	Blue jacaranda	
*	*Tecomaria capensis*	Cape honeysuckle	
	Euphorbiaceae – Spurge family		
*	*Euphorbia tirucalli*	Firestick	
	Fabaceae – Legume family		
*	*Acacia* sp.	Acacia	
*	*Melilotus officinalis*	Yellow sweetclover	
	Trifolium sp.	Clover	
	Lamiaceae – Mint family		
	Salvia sp.	Sage	
	Malvaceae – Mallow family		
*	*Malva parviflora*	Cheeseweed	
	Myrtaceae – Myrtle family		
*	*Eucalyptus leucoxylon*	Yellow gum	

*	*Eucalyptus* sp.	Gum
*	*Melaleuca citrina*	Crimson bottlebrush
	Nyctaginaceae – Four O'clock family	
	Bougainvillea sp.	Bougainvillea
	Oxalidaceae – Oxalis family	
*	*Oxalis pes-caprae*	Bermuda buttercup
	Rosaceae – Rose family	
*	*Rhaphiolepis indica*	Indian hawthorn
	Verbenaceae – Verbena family	
*	*Lantana montevidensis*	Trailing lantana
	MONOCOTS	
	Agavaceae – Century Plant family	
*	*Agave americana*	American century plant
	Yucca sp.	Yucca
	Arecaceae – Palm family	
*	*Phoenix canariensis*	Canary Island palm
*	*Phoenix dactylifera*	Date palm
*	*Thaumatophyllum bipinnatifidum*	Tree philodendron
*	*Washingtonia robusta*	Mexican fan palm
	Asparagaceae – Asparagus family	
	Asparagus sp.	Asparagus
	Cyperaceae – Sedge family	
*	*Cyperus involucratus*	Umbrella flatsedge
	Poaceae – Grass family	
*	*Bromus diandrus*	Ripgut brome
*	*Bromus madritensis* ssp. *rubens*	Red brome
	Bromus sp.	Brome
*	*Cortaderia selloana*	Pampas grass
*	*Melinis repens* ssp. *repens*	Natal grass
*	*Pennisetum setaceum*	African fountain grass
*	*Poa annua*	Annual blue grass
*	*Stipa miliacea* var. *miliacea*	Smilo grass
	Rutaceae – Citrus family	
	Citrus sp.	Lemon
	Strelitziaceae – Bird-of-paradise family	
*	*Strelitzia Nicolai*	Giant bird-of-paradise
*	*Strelitzia reginae*	Bird-of-paradise
	Typhaceae – Cattail family	
	Typha sp.	Cattail

Legend

*= Non-native or invasive species

Wildlife Species Observed

Scientific Name	Common Name	Special Status
VERTEBRATES		
Birds		
Anatidae – Swan, Goose, and Duck family		
Anas platyrhynchos	Mallard	
Melanitta perspicillata	Surf scoter	
Bucephala albeola	Bufflehead	
Phalacrocoracidae – Cormorant family		
Phalacrocorax auritus	Double-crested cormorant	WL
Pelecanidae – Pelican family		
Pelecanus erythrorhynchos	American white pelican	
Pelecanus occidentalis californicus	California brown pelican	FP
Ardeidae – Heron family		
Ardea alba	Great egret	
Ardea herodias	Great blue heron	
Scolopacidae – Sandpiper family		
Calidris alba	Sanderling	
Calidris mauri	Western sandpiper	
Charadriidae – Plover family		
Charadrius semipalmatus	Semipalmated plover	
Charadrius vociferus	Killdeer	
Accipitridae – Hawk, Eagle, and Kite family		
Accipiter cooperii	Cooper's hawk	WL
Laridae – Gull and Tern family		
Hydroprogne caspia	Caspian tern	
Sternula antillarum	Least tern	
Sterna forsteri	Forster's tern	
Larus californicus	California gull	
Larus occidentalis	Western gull	
Larus sp.	Gull species	
Columbidae – Pigeon and Dove family		
Columbia livia	Rock pigeon	
**Streptopelia decaocto*	Eurasian collared-dove	
Zenaida macroura	Mourning dove	
Trochilidae – Hummingbird family		
Calypte anna	Anna's hummingbird	
Selasphorus sasin	Allen's hummingbird	
Alaudidae – Larks		
Eremophila alpestris actis	California horned lark	WL
Tyrannidae – Tyrant Flycatcher family		

Sayornis nigricans	Black phoebe
Hirundinidae – Swallow family	
Hirundo rustica	Barn swallow
Apodidae – Swift family	
Aeronautes saxatalis	White-throated swift
Corvidae – Jay and Crow family	
Corvus brachyrhynchos	American crow
Icteridae – New World Blackbird family	
Quiscalus mexicanus	Great-tailed grackle
Sturnidae – Starling family	
**Sturnus vulgaris*	European starling
Psittacidae – Parrot family	
**Psittacara erythrogenys*	Red-masked parakeet
Parulidae – Wood-Warbler family	
Leiothlypis celata	Orange-crowned warbler
Setophaga coronata	Yellow-rumped warbler
Fringillidae – Finch family	
Haemorhous mexicanus	House finch
Passerellidae - New World Sparrow Family	
Melospiza melodia	Song sparrow

Legend

*= Non-native or invasive species

Special Status
State:
FP = Fully Protected
WL = Watch List