

Appendix D
**Biological Resources Technical
Report**



Final

OCEANSIDE COAST HIGHWAY CORRIDOR STUDY PROJECT

Biological Technical Report

Prepared for
City of Oceanside

February 2017



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Oceanside Coast Highway Corridor Study Project

Biological Technical Report

1. Introduction

This biological technical report describes an assessment of biological resources conducted in support of the Coast Highway Corridor Study Project (proposed project, or project). The project involves Complete Streets improvements proposed by the City of Oceanside (City) throughout the Coast Highway corridor as well as an amendment to the Zoning Ordinance to create a Coast Highway Incentive District (Incentive District). The Incentive District boundaries were not finalized when this biological technical report was initiated. For this reason, a larger Incentive District review area was assessed, which encompasses the final Incentive District boundaries. This report includes an assessment of biological resources impacts for the Complete Streets improvements and provides an overview of biological resources within the Incentive District.

2. Project Description

The proposed project consists of two components: Complete Streets improvements, analyzed at a project-level, and an Incentive District, which is analyzed programmatically (Figure 1). The Complete Streets improvements span approximately 3.5 miles from the northern terminus of Coast Highway at Harbor Drive to Eaton Street near the City's southern boundary and would include enhancements to the existing roadway infrastructure as well as bicycle, pedestrian, and transit facilities throughout the corridor. These enhancements include making streetscape improvements (removing dead trees and replanting trees), repainting the road surface, adding crosswalks, adding bulbouts, and improving manholes and creating roundabouts at designated Study Intersections (Figure 2). The Incentive District would extend from Seagaze Drive to the north past Eaton Street to the south, and extend from Ditmar Street on the east to Pacific Street on the west. The Incentive District would provide optional regulations and standards that a developer or property owner may choose in lieu of the existing underlying zoning. If adopted, the Incentive District would be an optional zoning program that developers could choose to apply for new development or redevelopment within the Incentive District boundary. Implementation of the Incentive District would require amendments to the City's existing General Plan and Zoning Ordinance. It should be noted that when referring specifically to each project component, the terms "Complete Streets improvements" and "Incentive District review area"¹ will be used to

¹ Due to the boundaries of the Incentive District being in flux at the time of this report, the term "Incentive District review area" represents the larger area used to identify and analyze potential resources and impacts associated with the Incentive District.

describe the individual areas while the term “project area” will be used when referring to the combined area of both project components.

3. Regulatory Framework

3.1 Federal

Endangered Species Act (USC, Title 16, § 1531 through 1543)

The federal Endangered Species Act (FESA) and subsequent amendments provide guidance for the conservation of endangered and threatened species and the ecosystems upon which they depend. In addition, the FESA defines species as threatened or endangered and provides regulatory protection for listed species. The FESA also provides a program for the conservation and recovery of threatened and endangered species as well as the conservation of designated critical habitat that the U.S. Fish and Wildlife Service (USFWS) determines is required for the survival and recovery of these listed species.

Section 7 of the FESA requires federal agencies, in consultation and with assistance from the Secretary of the Interior or the Secretary of Commerce, as appropriate, to ensure that actions they authorize, fund, or carry out are not likely to jeopardize the continued existence of threatened or endangered species or result in the destruction or adverse modification of critical habitat for these species. The USFWS and National Marine Fisheries Service (NMFS) share responsibilities for administering the FESA. Regulations governing interagency cooperation under Section 7 are found in California Code of Regulations (CCR) Title 50, Part 402. The opinion issued at the conclusion of consultation will include a statement authorizing “take” (to harass, harm, pursue, hunt, wound, kill, etc.) that may occur incidental to an otherwise legal activity.

Section 9 lists those actions that are prohibited under the FESA. Although take of a listed species is prohibited, it is allowed when it is incidental to an otherwise legal activity. Section 9 prohibits take of listed species of fish, wildlife, and plants without special exemption. The definition of “harm” includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. “Harass” is defined as actions that create the likelihood of injury to listed species by significantly disrupting normal behavioral patterns related to breeding, feeding, and shelter.

Section 10 provides a means whereby a nonfederal action with the potential to result in take of a listed species can be allowed under an incidental take permit. Application procedures are found at 50 Code of Federal Regulations (CFR) 13 and 17 for species under the jurisdiction of USFWS and 50 CFR 217, 220, and 222 for species under the jurisdiction of NMFS.

Migratory Bird Treaty Act (16 USC 703 through 711)

The Migratory Bird Treaty Act (MBTA) is the domestic law that affirms, or implements, a commitment by the United States to four international conventions (with Canada, Mexico, Japan, and Russia) for the protection of a shared migratory bird resource. The MBTA makes it unlawful at any time, by any means, or in any manner to pursue, hunt, take, capture, or kill migratory birds. The law also applies to the removal of nests occupied by migratory birds during the breeding

season. The MBTA makes it unlawful to take, pursue, molest, or disturb these species, their nests, or their eggs anywhere in the United States.

Federal Clean Water Act (33 USC 1251 through 1376)

The Clean Water Act (CWA) provides guidance for the restoration and maintenance of the chemical, physical, and biological integrity of the nation's waters. Section 401 requires a project operator to obtain a federal license or permit that allows activities resulting in a discharge to waters of the United States to obtain state certification, thereby ensuring that the discharge will comply with provisions of the CWA. The Regional Water Quality Control Board (RWQCB) administers the certification program in California. Section 402 establishes a permitting system for the discharge of any pollutant (except dredged or fill material) into waters of the United States. Section 404 establishes a permit program administered by the U.S. Army Corps of Engineers (USACE) that regulates the discharge of dredged or fill material into waters of the United States, including wetlands. The USACE implementing regulations are found at 33 CFR 320 and 330. Guidelines for implementation are referred to as the Section 404(b)(1) Guidelines, which were developed by the United States Environmental Protection Agency in conjunction with USACE (40 CFR 230). The guidelines allow the discharge of dredged or fill material into the aquatic system only if there is no practicable alternative that would have less adverse impacts.

Wetlands and Other Waters of the United States

Aquatic resources, including riparian areas, wetlands, and certain aquatic vegetation communities, are considered sensitive biological resources and can fall under the jurisdiction of several regulatory agencies. The USACE exerts jurisdiction over waters of the United States, including all waters that are subject to the ebb and flow of the tide; wetlands and other waters such as lakes, rivers, streams (including intermittent or ephemeral streams), mudflats, sandflats, sloughs, prairie potholes, vernal pools, wet meadows, playa lakes, or natural ponds; and tributaries of the above features. The extent of waters of the United States is generally defined as the portion that falls within the limits of the Ordinary High Water Mark (OHWM). Typically, the OHWM corresponds to the 5- to 7-year flood event.

Wetlands, including swamps, bogs, seasonal wetlands, seeps, marshes, and similar areas, are defined by USACE as “those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (33 CFR 328.3[b]; 40 CFR 230.3[t]). Indicators of three wetland parameters (i.e., hydric soils, hydrophytic vegetation, and wetlands hydrology), as determined by field investigation, must be present for a site to be classified as a wetland by USACE (USACE 1987).

3.2 State

California Endangered Species Act – California Fish and Game Code § 2050 et seq.

The California Endangered Species Act (CESA) establishes the policy of the state to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA

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. There are no state agency consultation procedures under the CESA. For projects that would affect a listed species under both the CESA and the FESA, compliance with the FESA would satisfy the CESA if the California Department of Fish and Wildlife (CDFW) determines that the federal incidental take authorization is “consistent” with the CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of a species listed under the CESA only, the project operator would have to apply for a take permit under Section 2081(b).

California State Fish and Game Code § 1602

Under these sections of the California Fish and Game Code, the project operator is required to notify CDFW prior to any project that would divert, obstruct, or change the natural flow, bed, channel, or bank of any river, stream, or lake. Pursuant to the code, a “stream” is defined as a body of water that flows at least periodically, or intermittently, through a bed or channel having banks and supporting fish or other aquatic life. Based on this definition, a watercourse with surface or subsurface flows that supports or has supported riparian vegetation is a stream and is subject to CDFW jurisdiction. Altered or artificial watercourses valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events.

Preliminary notification and project review generally occur during the environmental process. When an existing fish or wildlife resource may be substantially adversely affected, CDFW is required to propose reasonable project changes to protect the resource. These modifications are formalized in a Streambed Alteration Agreement, which becomes part of the plans, specifications, and bid documents for the project.

California Fully Protected Species

California fully protected species are described in Sections 3511, 4700, 5050, and 5515 of the California Fish and Game Code. These statutes prohibit take or possession of fully protected species. The CDFW is unable to authorize incidental take of fully protected species when activities are proposed in areas inhabited by those species.

California State Fish and Game Code §§ 2080 and 2081

Section 2080 of the California Fish and Game Code states that “No person shall import into this state [California], export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission [State Fish and Game Commission] determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, or the Native Plant Protection Act, or the California Desert Native Plants Act.” Pursuant to Section 2081 of the code, CDFW may authorize individuals or public agencies to import, export, take, or possess state-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through permits or Memoranda of Understanding if the take is incidental to an otherwise lawful activity, impacts of the authorized take are minimized and fully mitigated, the permit is consistent with any

regulations adopted pursuant to any recovery plan for the species, and the project operator ensures adequate funding to implement the measures required by CDFW. The CDFW makes this determination based on available scientific information and considers the ability of the species to survive and reproduce.

California State Fish and Game Code §§ 3503, 3503.5, 3513, and 3800

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3503.5 specifically states that it is unlawful to take, possess, or destroy any raptor (i.e., species in the orders *Falconiformes* and *Strigiformes*), including its nests or eggs. Typical violations of these codes include destruction of active nests resulting from removal of vegetation in which the nests are located. Violation of Section 3503.5 could also include failure of active raptor nests resulting from disturbance of nesting pairs by nearby project construction. This statute does not provide for the issuance of any type of incidental take permit.

Section 3800 of the California Fish and Game Code affords protection to all nongame birds, which are all birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds.

Section 3513 of the California Fish and Game Code upholds the MBTA by prohibiting any take or possession of birds that are designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA.

California Environmental Quality Act Guidelines § 15380

Although threatened and endangered species are protected by specific federal and state statutes, California Environmental Quality Act (CEQA) Guidelines § 15380(b) provides that a species not listed on the federal or state list of protected species may be considered rare or endangered if the species can be shown to meet certain specified criteria. These criteria have been modeled after the definition in FESA and the section of the California Fish and Game Code dealing with rare or endangered plants or animals. This section was included in CEQA primarily to deal with situations in which a public agency is reviewing a project that may have a significant effect on, for example, a candidate species that has not been listed by either USFWS or CDFW. Thus, CEQA provides an agency with the ability to protect a species from the potential impacts of a project until the respective government agencies have an opportunity to designate the species as protected, if warranted. CEQA also calls for the protection of other locally or regionally significant resources, including natural communities. Although natural communities do not at present have legal protection of any kind, CEQA calls for an assessment of whether any such resources would be affected, and requires findings of significance if there would be substantial losses. Natural communities listed by the California Natural Diversity Database (CNDDDB) as sensitive are considered by CDFW to be significant resources and fall under the *CEQA Guidelines* for addressing impacts. Local planning documents such as general plans often identify these resources as well.

Native Plant Protection Act – California Fish and Game Code §§ 1900 through 1913

California's Native Plant Protection Act (NPPA) requires all state agencies to use their authority to carry out programs to conserve endangered and rare native plants. Provisions of the NPPA prohibit the taking of listed plants from the wild and require notification of CDFW at least 10 days in advance of any change in land use. This allows CDFW to salvage listed plant species that would otherwise be destroyed. The project operator is required to conduct botanical inventories and consult with CDFW during project planning to comply with the provisions of this act and sections of CEQA that apply to rare or endangered plants.

California Wetland Definition

Unlike the federal government, California has adopted the Cowardin et al. (1979) definition of wetlands. For purposes of this classification, wetlands must have one or more of the following three attributes: (1) at least periodically, the land supports predominantly hydrophytes (at least 50 percent of the aerial vegetative cover); (2) the substrate is predominantly undrained hydric soil; and (3) the substrate is non-soil and saturated with water or covered by shallow water at some time during the growing season of each year.

Under normal circumstances, the federal definition of wetlands requires all three wetland identification parameters to be met, whereas the Cowardin definition requires the presence of at least one of these parameters. For this reason, identification of wetlands by state agencies consists of the union of all areas that are periodically inundated or saturated or in which at least seasonal dominance by hydrophytes may be documented or in which hydric soils are present.

California Coastal Act of 1976

The California Coastal Act of 1976 gave the California Coastal Commission (CCC) regulatory authority to protect coastal resources, including shoreline public access and recreation, lower cost visitor accommodations, terrestrial and marine habitat protection, visual resources, landform alteration, agricultural lands, commercial fisheries, industrial uses, water quality, offshore oil and gas development, transportation, development design, power plants, ports, and public works. Development within the coastal zone usually requires a Coastal Development Permit from either the CCC or the local government if such development would occur within the coastal zone.

Clean Water Act, § 401

Under Section 401 of the CWA, the local RWQCB (for this project, the San Diego RWQCB) must certify that actions receiving authorization under Section 404 of the CWA also meet state water quality standards. The RWQCB requires projects to avoid impacts to wetlands if feasible and requires that projects do not result in a net loss of wetland acreage or a net loss of wetland function and values. Compensatory mitigation for impacts to wetlands and/or waters of the state is required.

Porter-Cologne Water Quality Control Act

The RWQCB also has jurisdiction over waters deemed “isolated” or not subject to Section 404 jurisdiction under the *Solid Waste Agency of Northern Cook County v. USACE* decision. Dredging, filling, or excavation of isolated waters constitutes a discharge of waste to waters of the state and prospective dischargers are required to obtain authorization through an Order of Waste Discharge or waiver thereof from the RWQCB and comply with other requirements of Porter-Cologne Act.

3.3 Local

North County Multiple Habitat Conservation Program

The Multiple Habitat Conservation Program (MHCP) is a comprehensive, multiple jurisdictional planning program designed to create, manage, and monitor an ecosystem preserve in northwestern San Diego County. It is one of several large, multiple jurisdictional habitat planning efforts in San Diego County, each of which constitutes a “subregional” plan under the State of California’s Natural Community Conservation Planning Act of 1991. The MHCP preserve system is intended to protect viable populations of native plant and animal species and their habitats in perpetuity, while accommodating continued economic development and quality of life for residents of North County. The MHCP subregion encompasses the seven incorporated cities of northwestern San Diego County (Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista). These jurisdictions will implement their portions of the MHCP plan through citywide “subarea” plans, which describe the specific policies each city will institute for the MHCP. While not yet formally adopted, the *Final Oceanside Subarea Plan* (City subarea plan) has been implemented since 2010. The project has been evaluated against the provisions of the subarea plan as currently drafted.

The MHCP species are grouped into three general categories for determining conservation: obligate wetland species, narrow endemic species, and other species. Obligate wetland species are species for which all life requisites provided in the MHCP area are expected to be within open water or wetland vegetation communities, which are subject to the no net loss policy. Consequently, inside the focused planning area (FPA), all points for obligate wetland species are calculated as 100% conserved. This assumes 100% conservation of the habitat and active habitat management to ensure no loss of habitat value to support the species. Although wetland habitats outside the FPA are also 100% conserved by the no net loss policy, associated wetland species are calculated as 0% conserved, because active management to ensure habitat value will not be guaranteed outside the FPA. Narrow endemic species are species that are confined to a specific geographic region, soil type, and/or habitat. In hardline FPA areas, location points for narrow endemics are calculated as 100% conserved by impact avoidance. In softline FPA areas, narrow endemic points are calculated as 95% conserved by avoidance, minimization, and species-specific mitigation. Outside of the FPA, narrow endemic points are calculated as 80% conserved based on avoidance, minimization, and species-specific mitigation. Other species include species that are not wetland obligates or narrow endemics. All points falling inside hardline FPA areas are calculated as 100% conserved, based on impact avoidance. In softline FPA areas, points are

generally calculated as conserved at the FPA percent level for the area the point falls within. All points that fall outside of the FPA are calculated as 0% conserved.

Within the project area, the San Luis Rey River corridor includes hardline and softline areas within the FPA. The Buena Vista Lagoon is also considered a hardline area of the FPA (Figure 2). The remainder of the project area, including Loma Alta Creek, is outside of the FPA.

City of Oceanside General Plan

The Environmental Resource Management Element of the City of Oceanside General Plan provides the following goal and objective that applies to vegetation and wildlife habitats.

Goal: Evaluate the state of the environment and formulate a program of planned management, wise utilization, and preservation of our natural resources to ensure the health, safety, and welfare of present and future generations.

Objective: Vegetation and Wildlife Habitats. Conserve and enhance vegetation and wildlife habitats, especially areas of rare, endangered, or threatened species.

4. Methodology

An assessment of biological resources was conducted within the Incentive District and a buffer of 300 feet around the Complete Streets improvements (hereinafter referred to the biological survey area or BSA). A 300-foot buffer was used around the Complete Streets improvements in order to evaluate the potential for sensitive biological resources and to analyze potential indirect noise impacts that could occur during construction of the Complete Streets improvements. Although a specific buffer was not used for the Incentive District review area, the reconnaissance-level survey of this area is larger than what the final Incentive District boundaries would encompass. The BSA represents the greatest extent of biological review conducted for the proposed project (Figure 2).

The assessment was conducted through a review of existing data for the BSA, followed up with a field visit. ESA biologists Julie Stout and Michelle Irace conducted a reconnaissance-level survey for biological resources on August 26, 2016, to assess the potential for sensitive biological resources to occur. The reconnaissance-level survey was conducted by vehicle and on foot, and included vegetation mapping, an assessment of habitat suitability for special-status species, and an assessment of potential jurisdictional resources. Specific methodologies used to assess biological resources are discussed below, including existing data resources that were consulted to supplement the field investigation.

4.1 Vegetation Communities

Vegetation communities within the BSA were characterized based on the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) as modified in *Draft Vegetation Communities of San Diego County* (Oberbauer, Kelly, and Buegge 2008). Plant species nomenclature follows that of *The Jepson Manual: Higher Plants of California* (Hickman 1993), as updated in Baldwin (2012). Plant communities were mapped in the field

using printed aerial imagery and later digitized onto orthorectified aerial photographs using Geographic Information System (GIS) technology. A minimum mapping unit of 0.25 acre was used for upland vegetation types and 0.125 acre for riparian/wetland vegetation types. Vegetation communities were then quantified with respect to acreage within the BSA to determine impacts to each community and impacts to habitat for both special-status and common species.

4.2 Jurisdictional Wetlands and Waters

Prior to conducting the field survey, the following resources were reviewed for determining the presence of potential jurisdictional wetlands and waters within the BSA:

- USFWS National Wetlands Inventory (NWI) of wetlands and deep water habitats
- U.S. Geological Survey (USGS) National Hydrography Dataset (NHD)
- CCC coastal zone boundaries

The presence of wetlands and waters potentially under the jurisdiction of USACE, CDFW, and/or RWQCB were assessed during the field survey. Additionally, the project area was reviewed for overlap with areas under the jurisdiction of the CCC. A formal delineation was not conducted and no wetland determination data points were taken as the proposed project is not expected to impact any potential jurisdictional wetlands or waters. Informal jurisdictional wetlands and waters mapping was conducted within 50 feet of the Complete Streets improvements and throughout the Incentive District review area to provide boundaries of any potential jurisdictional wetlands or waters to ensure complete avoidance. The informal jurisdictional delineation, including wetland mapping, conservatively assumed that any areas showing indicators of an OWHM, hydrophytic vegetation, wetland hydrology, and/or riparian vegetation were potentially jurisdictional. Additionally, NWI- and NHD-mapped resources were generally considered potentially jurisdictional except where verified as non-existent during the field investigation.

4.3 Special-Status Species

Prior to conducting the field survey, the following resources were reviewed to aid in determining the potential for special-status species or their habitats to occur:

- CNDDDB special-status species occurrence records within one mile of the BSA (Figure 5)
- USFWS-designated critical habitat and federally threatened and endangered species locations
- California Native Plant Society (CNPS) rare plant records
- San Diego Association of Governments (SANDAG) SanBios Database
- North County MHCP (SANDAG 2003)
- City subarea plan (City of Oceanside 2010)

A list of special-status plant and wildlife species was compiled from these resources. During the field survey, the potential for the BSA to support this list of special-status species was evaluated based on an analysis of onsite vegetation and habitats, known home ranges and distribution of target species, and the overall ecological value of the BSA and surrounding area. Focused,

protocol-level surveys for special-status species were not conducted as part of the survey; however, special-status species were recorded, if detected.

4.4 Wildlife Corridors

Prior to the field survey, the City subarea plan (City of Oceanside 2010) was reviewed to confirm the presence of designated habitat linkages and dispersal corridors within the BSA. During the field survey, biologists assessed areas identified in the MHCP within the BSA for potential wildlife corridor functions by noting where narrow corridors containing undeveloped habitat connect larger native habitat areas. Potential wildlife corridors can include streams, riparian areas, and culverts under roadways. Habitat characteristics considered included topography, habitat quality, and adjacent land uses. In addition to reviewing the BSA for presence of continuous corridors, the BSA was also reviewed for potential dispersal corridors for coastal California gnatcatchers based on habitat type and quality, size of habitat patches, and distance separating habitat patches.

5. Results

This section describes the results of the reconnaissance-level survey and desktop literature/database review for each respective biological resource. Site photographs are presented in Appendix B and CNDDDB special-status species records are presented in Appendix C.

5.1 Vegetation Communities

Vegetation communities were mapped within the BSA (Figure 3) and are based on the *Draft Vegetation Communities of San Diego County* (Oberbauer et al. 2008). These vegetation communities/land cover types are summarized below and are shown in Table 5-1. The MHCP Habitat Group designation of each vegetation community within the BSA is included in Table 5-1. Vegetation communities are combined into Habitat Groups (A through F) to rank the sensitivity of habitats for purposes of assigning mitigation ratios.

It should be noted that habitat restoration efforts appeared to be taking place along the San Luis Rey River corridor southwest of the bridge crossing at Coast Highway. The flat-topped buckwheat community at this location appeared to be the result of a restoration project. In addition, there was a disturbed habitat area south of the existing bike path that may be actively undergoing restoration as well.

**TABLE 5-1
VEGETATION COMMUNITIES AND LAND COVER TYPES IN THE PROJECT AREA (ACRES)**

Vegetation Community/Land Cover Type	MHCP Habitat Group ¹	Complete Streets Improvements	Incentive District Review Area (beyond Complete Streets Improvements)
Riparian and Wetlands			
Disturbed Wetland (11200)	A	-	0.05
Emergent Wetland (52440)	A	-	0.11
Coastal Brackish Marsh (52200)	A	-	4.35
Coastal and Valley Freshwater Marsh (52410)	A	-	-
Brackish Water Estuary (64133)	A	-	0.20
Non-Vegetated Floodplain or Channel (64200)	A	-	1.91
Non-Native Riparian (65000)	A	-	1.07
Uplands			
Diegan Coastal Sage Scrub (32500)	C	-	-
Flat-topped Buckwheat (32800)	D	-	0.27
Other Land Cover Types			
Disturbed Habitat (11300)	F	-	16.96
Urban/Developed (12000)	-	37.56	428.86
Total		37.56	453.78

¹ Habitat Group A consists of wetland/riparian communities that are subject to the MHCP goal of no net loss in acreage, function, and value. Habitat Group B consists of rare upland communities, subject to MHCP goal to avoid impact as much as possible and conserve onsite existing habitat areas. Habitat Group C consists of coastal sage scrub, with an MHCP goal to minimize impacts as much as possible. Habitat Group D consists of chaparral communities (with the exception of southern maritime chaparral), with an MHCP goal to minimize impacts to these communities within FPAs. Habitat Group D consists of annual (nonnative) grasslands, with an MHCP goal to minimize impacts within FPAs as much as possible. Group F consist of other lands such as disturbed or agricultural, which should be considered for avoidance if active uses are discontinued and these lands may support habitat for plants or wildlife species.

SOURCES: Holland 1986; Oberbauer et al. 2008; SANDAG 2003.

Riparian and Wetlands

Disturbed Wetland (11200)

Disturbed wetlands are permanently or periodically inundated by water and have been significantly modified by human activity. Disturbed wetlands include portions of wetlands with obvious artificial structures such as concrete lining, barricades, rip-rap, piers, or gates. Disturbed wetlands are often unvegetated, but may contain scattered native or non-native vegetation. Examples include lined channels, Arizona crossings, detention basins, culverts, and ditches. Characteristic species include *Arundo donax*, *Tamarix* spp., *Eucalyptus* spp., *Phoenix* spp., *Washingtonia* spp., *Cortaderia* spp., and *Cynodon dactylon*, and may also contain *Salix* spp., *Typha* spp., and a variety of other wetland plants. This community occurs in a small patch (0.05 acre) in the Incentive District review area at the southwest corner of Cassidy Street and Broadway Street.

Emergent Wetland (52440)

Emergent wetlands are generally persistent wetlands dominated by low growing, perennial wetland species. These can be found in channels, seeps and springs, floodplains, margins of lakes and rivers, and various basins such as pools and ponds, palustrine lakes, montane meadows, and dune swales. These may be freshwater or alkali wetlands. In San Diego County, these are often in previously disturbed areas where wetlands are emerging, but have not yet established a full suite of species; however, disturbance is not a necessary element of this vegetation community. Characteristic species include *Carex* spp., *Eleocharis* spp., *Juncus* spp., *Rumex* spp., *Sparganium eurycarpum*, and many others. This community occurs along Loma Alta Creek and totals 0.11 acre in the Incentive District review area.

Coastal Brackish Marsh (52200)

Coastal brackish marsh habitat is dominated by perennial, emergent, herbaceous monocots to 2 meters tall. Cover is often complete and dense. Coastal brackish marshes are similar to coastal salt marshes, but brackish from freshwater input. Salinity may vary considerably, and may increase at high tide, during seasons of low freshwater runoff, or both. Coastal brackish marshes usually intergrade with coastal salt marshes toward the ocean and occasionally with freshwater marshes at the mouths of rivers. Characteristic species include *Carex harfordii*, *Carex obnupta*, *Carex* spp., *Distichlis spicata* var. *spicata*, *Juncus* spp., *Salicornia* spp., *Scirpus* spp., and *Typha latifolia*. Coastal brackish marsh is usually found at the interior edges of coastal bays and estuaries or in coastal lagoons. This community occurs at Buena Vista Lagoon and totals 4.35 acres in the Incentive District review area.

Coastal and Valley Freshwater Marsh (52410)

Coastal and valley freshwater marsh is dominated by perennial, emergent monocots measuring 4 to 5 meters tall that often form completely closed canopies. This habitat generally occurs at sites permanently flooded by fresh water (rather than brackish, alkaline, or variable) with prolonged saturation permitting accumulation of deep, peaty soils. Characteristic species include *Carex lanuginosa*, *C. senta*, *Cyperus esculentus*, *C. eragrostis*, *Eleocharis* spp., *Hydrocotyl verticillata triradiata*, *Limosella aquatica*, *Phragmites australis*, *Scirpus acutus*, *S. americanus*, *S. californicus*, *S. robustus*, *Sparganium eurycarpum*, *Typha angustifolia*, *T. domingensis*, *T. latifolia*, and *Verbena bonariensis*. This habitat is found along the coast and in coastal valleys near river mouths and around the margins of lakes and springs. It is now much reduced in area through its entire range. This community occurs outside of the project area within the BSA at Buena Vista Lagoon.

Brackish Water Estuary (64133)

Water in this estuarine habitat contains more salt than freshwater but less than the open ocean. Salinity fluctuates based on rainfall, evaporation, and tides, although brackish marshes are exposed to limited tidal action. Characteristic species include algae and eel grass (*Zostera marina*). This community occurs at the west end of Loma Alta Creek in 0.20 acre of the Incentive District review area.

Non-Vegetated Floodplain or Channel (64200)

Non-vegetated floodplain or channel occurs along the sandy, gravelly, or rocky fringe of waterways or flood channels and is unvegetated on a relatively permanent basis. Variable water lines inhibit the growth of vegetation, although some weedy species of grasses may grow along the outer edges of the wash. Vegetation may exist here but is usually less than 10% total cover. This community occurs within 1.91 acres of the Incentive District review area, within the BSA but outside of the project area, and below the Complete Streets improvements at the overpasses at San Luis Rey River and Loma Alta Creek.

Non-Native Riparian (65000)

Non-native riparian describes densely vegetated riparian thickets dominated by non-native, invasive species. Non-native, invasive species account for greater than 50% of the total vegetative cover within a mapping unit. Non-native riparian is found in a variety of wetland habitats, often where disturbance has occurred. Characteristic species include *Arundo donax*, *Tamarix* spp., *Eucalyptus* spp., *Phoenix* spp., *Washingtonia* spp., *Cynodon dactylon*, *Ricinus communis*, *Cortaderia* spp. along with natives such as *Pluchea sericea*, *Populus fremontii*, and *Salix* spp. In San Diego County this is common in major river channels such as Otay River, Sweetwater River, San Diego River, San Dieguito River, and San Luis Rey River. This community occurs in 1.07 acres of the Incentive District review area along Loma Alta Creek, and along the San Luis Rey River within the BSA but outside of the project area and below the overpass within the Complete Streets improvements.

Uplands

Diegan Coastal Sage Scrub (32500)

Diegan coastal sage scrub is comprised of low, soft-woody subshrubs and dominated by *Artemisia californica* and *Eriogonum fasciculatum* together with *Malosma laurina*, *Salvia apiana* and *Salvia mellifera*. This community typically occurs on steep, xeric slopes or clay-rich soils that are slow to release stored water. Characteristic species include *Artemisia californica*, *Eriogonum fasciculatum*, *Galvesia speciosa*, *Haplopappus venetus*, *Lavatera assurgentiflora*, *Lotus scoparius*, *Malacothamnus fasciculatus*, *Malosma laurina*, *Rhus integrifolia*, *Salvia apiana*, *Salvia mellifera*, and *Stipa lepida*. This community is more *Malosma*-dominant and occurs within the BSA but outside of the project area near the San Luis Rey River.

Flat-topped Buckwheat (32800)

Flat-topped buckwheat is a near monoculture community usually resulting from disturbance and transitioning to coastal sage scrub or chaparral. Species characteristic of this community appear over time. This community is often found in disturbed areas in the coastal and foothill areas of San Diego County. Characteristic species include *Eriogonum fasciculatum* and *Lotus scoparius*. This community occurs within the BSA but outside of the project area near the San Luis Rey River and within 0.27 acres of the Incentive District review area near Loma Alta Creek along the train track berm.

Other Land Cover Types

Disturbed Habitat (11300)

“Disturbed habitat” describes areas that have been physically disturbed (by previous legal human activity) and are no longer recognizable as a native or naturalized vegetation association, but continue to retain a soil substrate. Typically, vegetation, if present, is nearly exclusively composed of non-native plant species such as ornamentals or ruderal exotic species that take advantage of disturbance, or shows signs of past or present animal usage that removes any capability of providing viable natural habitat for uses other than dispersal. Examples of disturbed land include areas that have been graded, repeatedly cleared for fuel management purposes, and/or experienced repeated use that prevents natural revegetation (i.e., dirt parking lots, trails that have been present for several decades), recently graded firebreaks, graded construction pads, construction staging areas, off-road vehicle trails, and old homesites. Characteristic species include invasive, non-native forb species, such as, thistles ([*Centaurea*], [*Carduus*], and [*Cynara*] spp.), *Sonchus* spp., *Salsola tragus*, *Heterotheca grandiflora*, *Marrubium vulgare*, *Sisymbrium irio*, *Raphanus* spp., *Carpobrotus edulis*, *Chrysanthemum* spp., and *Foeniculum vulgare*. The limited number of grass species includes pampas grass (*Cortaderia* spp.) and fountain grass (*Pennisetum* spp.). It should be noted that the disturbed habitat within the BSA provides no natural habitat and does not meet preserve design goals such as providing important links or corridors for wildlife movement, which would preclude it from conservation of Group F lands, as discussed in the MHCP (SANDAG 2003). This habitat occurs within 0.92 acres of the Complete Streets improvements area and 16.96 acres of the Incentive District review area.

Urban/Developed (12000)

“Urban/developed land cover type” describes areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer supported. Developed land is characterized by permanent or semi-permanent structures, pavement or hardscape, and/or landscaped areas that often require irrigation. Urban/developed land cover type also includes areas where no natural land is evident due to a large amount of debris or other materials being placed upon it (e.g., car recycling plant, quarry), as well as unvegetated or landscaped areas with a variety of ornamental (usually non-native) plants. This land cover type occurs within the entire Complete Streets improvements (37.56 acres) and within the majority of the Incentive District review area (428.78 acres).

5.2 Jurisdictional Wetlands and Waters

No jurisdictional wetlands or waters were mapped within the Complete Streets improvements project area; however, jurisdictional wetlands and waters were mapped within the 50-foot buffer area of the Complete Streets improvements and within the Incentive District review area (Figure 4). Jurisdictional resources include the riparian/riverine concrete-lined channels and natural earthen features along the San Luis Rey River, Loma Alta Creek and Slough, and the Buena Vista Lagoon, as shown in Figure 4. These three areas represent NHD blue-line streams and all are considered impaired waterbodies by the Environmental Protection Agency (EPA). The project area is also within the coastal zone, an area regulated by the CCC.

The USACE-jurisdictional areas include wetland and non-wetland waters associated with the San Luis Rey River, Loma Alta Creek and Slough, and the Buena Vista Lagoon. These waters are direct tributaries to the Pacific Ocean, a Traditional Navigable Water.²

The San Diego RWQCB has jurisdiction over all USACE jurisdictional waters that were mapped, as well as isolated surface and subsurface waters beyond USACE jurisdiction. The project area is within three Hydrologic Unit Code (HUC) 12 subwatersheds. The northern segment is within the Guajome Lake-San Luis Rey River subwatershed (HUC 180703030304), the middle segment is within the Loma Alta Creek-Frontal Gulf of Santa Catalina subwatershed (HUC 180703030504), and the southern segment is within the Buena Vista Creek subwatershed (HUC 180703030501; EPA 2015).

The CDFW jurisdictional limits generally coincided with areas under USACE jurisdiction because USACE jurisdiction was mapped conservatively to include all riparian habitat associated with streams and estuaries.

5.3 Special-Status Species

Special-status species identified during the desktop literature and database review within one mile of the BSA are included in Appendix A and shown in Figure 5. No special-status species were detected during the field survey and no USFWS-designated critical habitat is present within the BSA. No special-status species are expected to occur in the Complete Streets improvements due to its developed nature. Potential for special-status species to occur is discussed below for the remaining portions of the BSA that include the Incentive District review area and the 300-foot buffer around the Complete Streets improvements.

Special-Status Plants

Special-status plants identified during the desktop literature/database review are summarized in Table 5-2 with potential to occur. The BSA includes a critical population of Nuttall's lotus (*Acmispon prostrates*) outside of the project area within the riparian corridor along the south side of the San Luis Rey River. Additionally, populations of sticky dudleya (*Dudleya viscida*) occur along the San Luis Rey River corridor both northeast and southwest of the project area (City of Oceanside 2008). These occurrences are within the BSA but outside of the project area. No special-status plant species are expected to occur in the proposed Complete Streets improvements due to its developed nature; however, a total of eleven species have a high or moderate potential to occur within the BSA, excluding the Complete Streets improvements: Nuttall's lotus, Coulter's saltbush (*Atriplex coulteri*), smooth tarplant (*Centromadia pungens ssp. laevis*), Orcutt's pincushion (*Chaenactis glabriuscula var. orcuttiana*), Blochman's dudleya (*Dudleya blochmaniae ssp. blochmaniae*), sticky dudleya, cliff spurge (*Euphorbia misera*), San Diego barrel cactus (*Ferocactus viridescens*), decumbent goldenbush (*Isocoma menziesii var. decumbens*), sea dahlia (*Leptosyne maritima*), and spreading navarretia (*Navarretia fossalis*).

² As defined under 33 CFR 329, Traditional Navigable Waters are waters subject to the ebb and flow of the tide, and those inland waters that are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.

**TABLE 5-2
SPECIAL-STATUS PLANT SPECIES' POTENTIAL TO OCCUR IN THE BIOLOGICAL STUDY AREA¹**

Scientific Name	Common Name	Protective Status²	Specific habitat³	Potential to Occur³
<i>Acemison prostratus</i>	Nuttall's lotus	1B.1 MHCP: Narrow Endemic	Coastal dunes, coastal scrub (sandy).	High potential – Previously recorded populations within the BSA along the San Luis Rey River corridor.
<i>Atriplex coulteri</i>	Coulter's saltbush	1B.2	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland, alkaline or clay soils.	High potential – May occur in the sandy disturbed habitats.
<i>Centromadia pungens ssp. laevis</i>	Smooth tarplant	1B.1	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland, alkaline soils.	Medium potential – May occur in alkaline soils within disturbed habitats.
<i>Chaenactis glabriuscula var. orcuttiana</i>	Orcutt's pincushion	1B.1	Coastal bluff scrub (sandy), coastal dunes.	Medium potential – May occur in the sandy disturbed habitats.
<i>Dudleya blochmaniae ssp. blochmaniae</i>	Blochman's dudleya	1B.1 MHCP: Covered	Coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland, often clay or serpentinite soils.	High potential – May occur in the sandy disturbed habitats and coastal scrub.
<i>Dudleya viscida</i>	Sticky dudleya	1B.2 MHCP: Covered	Coastal bluff scrub, chaparral, cismontane woodland, coastal scrub, rocky soils.	High potential – May occur in the coastal scrub along the San Luis Rey River.
<i>Eryngium aristulatum var. parishii</i>	San Diego button-celery	E 1B.1 MHCP: Narrow Endemic, Wetland Obligate	Vernal pools.	Not expected - Suitable habitat not present.
<i>Euphorbia misera</i>	Cliff spurge	2B.2 MHCP: Covered	Coastal bluff scrub, coastal scrub, Mojavean desert scrub, rocky soils.	High potential – Previously recorded along light rail line.
<i>Ferocactus viridescens</i>	San Diego barrel cactus	2B.1 MHCP: Covered	Chaparral, coastal scrub, valley and foothill grassland.	Medium potential - May occur in coastal scrub habitat.
<i>Isocoma menziesii var. decumbens</i>	Decumbent goldenbush	1B.2	Chaparral, coastal scrub, sandy soils, often in disturbed areas.	High potential – May occur within disturbed habitat, coastal sage scrub, and flat-topped buckwheat communities.
<i>Leptosyne maritima</i>	Sea dahlia	2B.2	Coastal bluff scrub, coastal scrub.	High potential - May occur in coastal scrub habitat. Previous record in Lawrence Canyon.
<i>Navarretia fossalis</i>	Spreading navarretia	1B.1 MHCP: Narrow Endemic, Wetland Obligate	Chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, vernal pools.	Medium potential – Suitable habitat along marsh fringes.
<i>Nemacaulis denudata var. denudata</i>	Coast woolly-heads	1B.2	Coastal dunes.	Low potential - May occur in the sandy disturbed habitats.

TABLE 5-2
SPECIAL-STATUS PLANT SPECIES' POTENTIAL TO OCCUR IN THE BIOLOGICAL STUDY AREA¹

Scientific Name	Common Name	Protective Status ²	Specific habitat ³	Potential to Occur ³
<i>Nemacaulis denudata</i> var. <i>gracilis</i>	Slender cottonheads	2B.2	Coastal dunes, desert dunes, Sonoran desert scrub.	Low potential - May occur in the sandy disturbed habitats.

¹ Biological Study Area, excluding the Complete Streets improvements where no special-status plant species are expected to occur.

² **Protective Status:**

USFWS: E=endangered under the FESA; T = threatened under the FESA
CDFW: E=endangered under the CESA; T = threatened under the CESA; WL = Watch List; SSC = Species of Special Concern
MHCP – Multiple Habitat Conservation Plan (SANDAG, 2003). For status descriptions, see section 3.3.

California Rare Plant Rank (CRPR):

- 1a: plants presumed extirpated in California and either rare or extinct elsewhere
- 1b: plants rare, threatened, or endangered in California and elsewhere
- 2a: plants presumed extirpated in California, but common elsewhere
- 2b: plants rare, threatened, or endangered in California, but more common elsewhere
- 3: plants about which more information is needed - a review list
- 4: plants of limited distribution - a watch list

Threat Ranks

- 0.1 seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
- 0.2 moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
- 0.3 not very threatened in California (less than 20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

³ **Potential to Occur (Source: California Native Plant Society Rare Plant Program, CNPS 2016)**

Not expected: the study area completely lacks suitable habitat or there is suitable habitat but the study area lies well outside the species' geographic and/or elevational range or the species has not been documented in the general area for more than 50 years.

Low potential: the study area and/or immediate vicinity contains marginal (low quality) habitat for a particular species and is within the species' known range or there is suitable habitat in the study area but the species has not been reported in the general area for more than 25 years.

Medium potential: the study area contains suitable habitat for a particular species and lies within the species' known range or the study area contains marginally suitable habitat and the species is known to occur in the general area.

High potential: the study area and/or immediate vicinity provides suitable habitat for a particular species and the species has been documented in the general vicinity within the last 25 years.

Present: the species or vegetation community/habitat was observed within the study area and/or immediate vicinity during surveys.

SOURCES: CNDDB 2011; CNPS 2016; SanBIOS 2016;

Special-Status Wildlife

Special-status wildlife species identified during the desktop literature/database review, as well as additional species identified with the potential to occur within the BSA, are summarized in Table 5-3. No special-status wildlife species were observed during the reconnaissance-level survey. Due to its urban/developed nature, none are expected to occur within the Complete Streets improvements. A total of 10 species have a moderate to high potential to occur within the portions of the BSA that include the Incentive District review area and the buffer of the Complete Streets improvements: two-striped garter snake (*Thamnophis hammondi*), southern California rufous-crowned sparrow (*Aimophila ruficeps canescens*), white-faced ibis (*Plegadis chihi*), coastal California gnatcatcher (*Polioptila californica californica*), light-footed Ridgway's rail (*Rallus longirostris levipes*), California least tern (*Sternula antillarum browni*), least Bell's vireo (*Vireo bellii pusillus*), western yellow bat (*Lasiurus xanthinus*), San Diego black-tailed jackrabbit (*Lepus californicus bennettii*), and pocketed free-tailed bat (*Nyctinomops femorosaccus*).

**TABLE 5-3
SPECIAL-STATUS WILDLIFE SPECIES' POTENTIAL TO OCCUR IN THE BIOLOGICAL STUDY AREA**

Scientific Name	Common Name	Protective Status ¹	Preferred Habitat	Potential to Occur ²
Fish				
<i>Eucyclogobius newberryi</i>	Tidewater goby	E, SSC	Coastal lagoons, estuaries, and marshes.	Not expected – CNDDDB record presumed extirpated.
Reptiles				
<i>Crotalus ruber</i>	Red-diamond rattlesnake	SSC	Chaparral, cactus patches, boulders.	Low potential – Marginal habitat along the San Luis Rey River.
<i>Thamnophis hammondi</i>	Two-striped garter snake	SSC	Generally found around pools, creeks, cattle tanks, and other water sources, often in rocky areas, in oak woodland, chaparral, brushland, and coniferous forest.	High potential – Potential to occur along scrub habitat near the San Luis Rey River.
Birds				
<i>Aimophila ruficeps canescens</i>	Southern California rufous-crowned sparrow	WL MHCP: Covered	Rocky hillsides and steep slopes in open grass and coastal sage scrub.	Medium potential – Small patches of habitat along the San Luis Rey River. Known to occur outside of the BSA in Lawrence Canyon.
<i>Athene cunicularia</i>	Burrowing owl	SSC MHCP: Covered	Open habitats for foraging with existing burrows for shelter and nesting.	Low potential – Potential to occur in disturbed and scrub habitats during migration, wintering, and dispersal. Habitat patches are too small to support nesting or a persistent population.
<i>Charadrius alexandrinus nivosus</i>	Western snowy plover	T, SSC MHCP: Obligate Wetland Species	Barren to sparsely vegetated sand or soils along beaches, lagoons, river bars.	Low potential – Suitable habitat not present; however foraging habitat may become available if mudflats become exposed within lagoon areas during low water.
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	SE MHCP: Obligate Wetland Species	Coastal salt marsh.	Low potential – Prefers pickleweed (<i>Salicornia</i> sp.) dominated salt marsh. Brackish marsh habitat in the BSA is dominated by cattails (<i>Typha</i> sp).
<i>Plegadis chihi</i>	White-faced ibis	WL MHCP: Obligate Wetland Species	Marshes. Breeds colonially in bushes or low trees.	Medium potential – Brackish marsh habitat present.
<i>Polioptila californica californica</i>	Coastal California gnatcatcher	T, SSC MHCP: Covered	Coastal sage scrub.	High potential – Potential for breeding along the San Luis Rey River. Flat-topped buckwheat patches may be used during dispersal.
<i>Rallus obsoletus levipes</i>	Light-footed Ridgway's rail	E, SE, FP MHCP: Covered	Coastal salt marsh.	High potential – Known to occur in Buena Vista Lagoon.

Scientific Name	Common Name	Protective Status ¹	Preferred Habitat	Potential to Occur ²
<i>Riparia riparia</i>	Bank swallow	ST	Nests in streamside banks.	Not expected – Extirpated from San Diego County
<i>Sternula antillarum browni</i>	California least tern	E, SE, FP MHCP: Covered	Seacoasts, beaches, bays, estuaries, lagoons, lakes and rivers, breeding on sandy or gravelly beaches and banks of rivers or lakes.	High potential – Foraging habitat only in estuary and open water habitats.
<i>Vireo bellii pusillus</i>	Least Bell's vireo	E, SE MHCP: Obligate Wetlands Species	Riparian scrub and forest.	High potential – Previously recorded along the San Luis Rey River.
Mammals				
<i>Lasiurus xanthinus</i>	Western yellow bat	SSC	Frequently roosts in trees and palm skirts.	High potential – Potential roosting habitat in palms and dense vegetation in non-native riparian and urban/developed habitats.
<i>Leptonycteris yerbabuena</i>	Lesser long-nosed bat	E	Inland deserts, foraging on cactus flowers and roosting in caves and mines.	Not expected – CNDDDB record is likely a vagrant during migration.
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	SSC MHCP: Covered	Coastal sage scrub, alkali meadow, and disturbed areas.	Medium potential – Potential to occur along the San Luis Ray River corridor.
<i>Nyctinomops femorosaccus</i>	Pocketed free-tailed bat	SSC	Prefers cliffs for roosting and inland habitats for foraging.	Medium potential – Marginal habitat present with potential for foraging in various habitats and roosting under bridges or in buildings.
<i>Perognathus longimembris pacificus</i>	Pacific pocket mouse	E, SSC MHCP: Narrow Endemic	Sandy coastal soils of coastal strand, coastal dunes, and coastal sage scrub habitats.	Not expected – Presumed extirpated; historic occurrence near Mission Avenue. Current distribution at Marine Corps Base Camp Pendleton.

¹ **Protective Status:**

USFWS: E=Endangered under the FESA; T = Threatened under the FESA
 CDFW: E=Endangered under the CESA; T = Threatened under the CESA; WL = Watch List; SSC = Species of Special Concern
 MHCP –Multiple Habitat Conservation Program (SANDAG, 2003). For status descriptions, see section 3.3.

² **Potential to Occur:**

Not Expected: The study area completely lacks suitable habitat OR there is suitable habitat but the study area lies well outside the species' geographic and/or elevational range or the species has not been documented in the general area for more than 50 years.

Low Potential: The study area and/or immediate vicinity contains marginal (low quality) habitat for a particular species and is within the species' known range or there is suitable habitat in the study area but the species has not been reported in the general area for more than 25 years.

Medium Potential: The study area contains suitable habitat for a particular species and lies within the species' known range or the study area contains marginally suitable habitat and the species is known to occur in the general area.

High Potential: The study area and/or immediate vicinity provides suitable habitat for a particular species and the species has been documented in the general vicinity within the last 25 years.

Present: The species or vegetation community/habitat was observed within the study area and/or immediate vicinity during surveys.

SOURCES: CNDDDB 2011; SanBIOS 2016; USFWS 2016.

5.4 Wildlife Movement and Habitat Linkages

The highly developed and urbanized nature of the project area limits its potential to support wildlife movement or habitat linkages. Outside of the project area, but within the BSA, there are limited areas with native habitat that can function as wildlife corridors. In particular, east-west linkages, primarily along narrow riparian corridors, are important to maintaining ecological balance in these lagoon and marsh ecosystems by allowing access by larger predators, especially coyotes (SANDAG 2003). Small islands of native habitat can also be important as resting areas for migrating or dispersing birds traveling over developed areas to larger patches of native habitat.

Within the BSA, the MHCP identifies corridors along the San Luis Rey River (at the northern end of the project area), Loma Alta Creek and Slough (in the middle of the project area), and Buena Vista Lagoon (on the southern end of the project area) as linear swaths of native habitat available to wildlife for movement and dispersal. The MHCP identifies the potential for wildlife corridor use via ranking of composite habitat values. The San Luis Rey River corridor has a ranking of very high while the north side of Buena Vista Lagoon is ranked as low. Terrestrial mammals and birds cross under Coast Highway at these locations to access the habitat east and west of the project area. These areas are also noted as FPAs within the City subarea plan, primarily as Hardline Areas requiring 90% to 100% conservation (Figure 2). Outside of these riparian corridors, the remainder of the BSA is precluded from use for wildlife movement due to the developed nature of the majority of this area.

The City subarea plan does not identify wildlife corridor planning zones or gnatcatcher corridor constrained areas within the BSA (City of Oceanside 2010). However, a regional gnatcatcher corridor is identified directly adjacent and to the northeast of the BSA on the opposite side of Interstate 5 (Figure 2). A small sliver of this corridor overlaps the BSA over the Interstate 5 freeway; however, this portion of the corridor would be non-functional for gnatcatcher use and was likely included because the corridor was mapped at a broad scale.

6. Impacts and Avoidance, Minimization, and Mitigation Measures

This section presents the potential impacts to biological resources that would occur with implementation of the proposed project, the regulatory framework and permitting requirements as applicable to the specific biological resources identified within the BSA, and recommended avoidance, minimization, and mitigation measures to address the potential impacts to biological resources. Impacts and mitigation measures are presented separately for the Complete Streets improvements and the Incentive District review area.

6.1 Complete Streets Improvements

The Complete Streets improvements would include road repainting (or restriping) and roundabout construction and installation at various intersections. Other improvements may include removal of trees and ornamental vegetation, crosswalk additions, and bulbout installation. These later elements would be primarily within areas mapped as urban/developed.

Special-Status Species

Migratory birds (including raptors) and several special-status wildlife species have the potential to occur within the Complete Streets improvements area and/or buffer, and could be impacted by the project as a result of tree removal and/or construction noise during the breeding season. Migratory birds may nest in trees located along the area planned for the Complete Streets improvements. If trees with nesting birds were to be removed direct mortality to individuals or eggs could occur, which would be considered a significant impact. Based on the primarily urban/developed nature of the area surrounding the project area, migratory birds potentially nesting along Coast Highway currently have some degree of tolerance for human presence and noise. While these migratory birds might have a degree of tolerance for human presence and noise, migratory birds could nest in trees adjacent to intersections where roundabouts and other physical improvements are proposed to be constructed, which could result in a significant impact to breeding activities due to construction-related noise. To address this impact implementation of MM Complete Streets BIO-1 would provide for a preconstruction nesting bird survey and other protection measures by a qualified biologist within 300 feet of construction activities, if construction activities need to take place during the breeding season.

Special-status wildlife species that have the potential to occur within the Complete Streets improvements area and/or buffer include two-striped garter snake, California least tern, light-footed Ridgway's rail, white-faced ibis, burrowing owl, southern California rufous-crowned sparrow, coastal California gnatcatcher, least Bell's vireo, western yellow bat, pocketed free-tailed bat, and San Diego black-tailed jackrabbit. No direct impacts to two-striped garter snake, California least tern, light-footed Ridgway's rail, white-faced ibis, burrowing owl, southern California rufous-crowned sparrow, coastal California gnatcatcher, least Bell's vireo, western yellow bat, pocketed free-tailed bat, or San Diego black-tailed jackrabbit would occur because the physical construction activities associated with the Complete Streets improvements (restriping, roundabouts, bulbouts, streetscape enhancements, and street lighting) would only impact urban/developed areas where these species are not expected to occur.

No indirect impacts related to noise or other factors are expected to occur because only restriping activities would occur within 100 feet or less of potential habitats for these species, with the exception of physical construction activities south of Vista Way which may include physical construction activities such as curb extensions, minor landscaping, new wheelchair access ramps, and a median island refuge. These activities may generate noise above baseline levels at a distance of less than 300 feet from potential habitat for light-footed Ridgway's rails, resulting in a potentially significant impact to this special-status species. With implementation of MM Complete Streets BIO-2, impacts to light-footed Ridgway's rails would be reduced to a less than significant level.

Western yellow bats may occur within skirted palm trees within the Complete Streets improvements area. Removal of skirted palm trees, if required for roundabout installation, may result in direct western yellow bat mortality or disturbance of maternity roosts, and would be considered a significant impact. However, MM Complete Streets BIO-2 would require a preconstruction survey of skirted palm trees by a qualified biologist prior to implementing western yellow bat protection measures to avoid significant impacts. With implementation of

MM Complete Streets BIO-3, impacts to western yellow bats would be reduced to a less than significant level.

No direct impacts to rare plants are expected because the physical construction activities associated with the Complete Streets improvements (restriping, roundabouts, bulbouts, streetscape enhancements, and street lighting) would only impact urban/developed areas where rare plants are not expected to occur. No indirect impacts to rare plants are expected because the Complete Streets improvements adjacent to potential habitat for rare plants (San Luis Rey River Crossing and Buena Vista Lagoon) would only involve restriping which would not generate sedimentation, dust, or runoff into adjacent areas.

MM Complete Streets BIO-1: Nesting Migratory Birds - Tree removal shall take place outside of the migratory bird breeding season (February 15 through August 31). If avoidance is not feasible and tree removal is required during the avian breeding season, the following measures shall be followed:

- a. A nesting bird survey of trees planned for removal and within 300 feet of construction activities shall be conducted by a qualified avian biologist no more than one week prior to commencement of tree removal activities. A qualified avian biologist refers to a person with the ability to identify birds present in San Diego County to the species level by sight or sound and who is familiar with the breeding and nesting behaviors of native bird species.
- b. If active nests with eggs or chicks of bird species protected under the MBTA are detected within trees or shrubs planned for removal, the trees will remain in place until it has been determined by the avian biologist that the nest is no longer active. If active nests are detected within 300 feet of physical construction activities, an appropriate buffer shall be determined by the avian biologist and no work shall take place within the buffer until it is determined that the nest is no longer active. Additional visits after the initial survey shall be conducted as necessary to determine that nests are no longer active.

MM Complete Streets BIO-2: Light-footed Ridgeway's Rails - For physical construction activities occurring less than 300 feet from potential light-footed Ridgeway's rail habitat associated with Buena Vista Lagoon (activities south of 33.169759°, -117.357623°, including the activities planned near the Buena Vista Audubon Society building), focused protocol surveys shall be conducted by a permitted biologist. If no rails are detected, construction may commence. If rails are detected, consultation with the USFWS would be required and may include non-disturbance areas within 300 feet of territories, implementation of noise attenuation measures, and/or daily biological monitoring and daily noise monitoring during the course of construction activities to confirm that construction activities are not adversely impacting nesting or foraging activities.

MM Complete Streets BIO-3: Special-Status Bats – This mitigation measure shall be required if removal of palm trees is proposed as part of the Complete Streets project. To avoid impacts to western yellow bats, a qualified biologist (a biologist with the ability to identify bat guano and assess habitat suitability for western yellow bats) shall inspect the base of palm skirts for guano

prior to removal of skirted palm trees (i.e. palm trees with several layers of accumulated dead fronds). If bats are detected, tree removal shall avoid the yellow bat maternity season (June 1 through August 31). If tree removal cannot avoid the maternity season, bat protection protocols shall be identified and implemented by a qualified bat biologist and approved by CDFW. The protocols may require installation of bat exclusionary devices, followed by up to four weeks of nightly monitoring by a qualified biologist to confirm bats are being excluded without harm until it is determined bats are no longer present. The protocols may also require construction of substitute bat habitat (i.e., bat boxes, artificial tree structures) in the vicinity of bat-occupied palm trees, followed by monitoring by a qualified biologist to confirm bats are using the bat habitat.

Vegetation Communities

No direct impacts to vegetation communities would occur with implementation of the proposed Complete Streets improvements. All work would occur within the urban/developed land cover type, which is not considered an MHCP habitat group and is not a sensitive vegetation community.

There are areas where Habitat Group A plant communities, which are considered as having the highest conservation priority, occur immediately adjacent to the Complete Streets improvements. These areas are coincident with FPAs associated with the San Luis Rey River crossing (bridge location in the northern end of the project area), Buena Vista Lagoon (at the south end of the project area, south of Eaton Street), and the Loma Alta Creek crossing (in the middle of the project area). Plant communities in these areas are riparian/wetland communities such as non-vegetated channel, non-vegetated floodplain, and non-native riparian.

Indirect impacts to riparian habitats and sensitive natural communities could result from work adjacent to the San Luis Rey River, Loma Alta Creek, and Buena Vista Lagoon by contributing to the spread of invasive species or generation of construction-related runoff, sedimentation, or dust. However, work adjacent to the San Luis Rey River would be limited to road restriping and would not require asphalt grinding or other activities that would result in creation of debris, sedimentation, or run-off. Therefore, no indirect impacts would occur to riparian habitat and other sensitive natural communities near the San Luis Rey River.

Physical construction activities that could indirectly impact riparian habitats and sensitive natural communities at Loma Alta Creek and Buena Vista Marsh include mid-block crosswalks proposed across Coast Highway adjacent to the Loma Alta Creek footpath (south of the existing Loma Alta Creek bridge) and near the Buena Vista Audubon Society driveway south of Eaton Street near Buena Vista Lagoon. Implementation of MM Complete Streets BIO-4 would avoid potential indirect impacts to Habitat Group A vegetation communities that have the potential to occur in this area.

MM Complete Streets BIO-4: Indirect Impacts to Sensitive Vegetation Communities – To avoid indirect impacts to riparian habitats and sensitive natural communities adjacent to the San Luis Rey River, Loma Alta Creek, and Buena Vista Lagoon, the following measures shall be implemented:

- a. Species with a rating of moderate or high on the California Invasive Plant Council Inventory Database shall not be used for streetscaping in the Complete Streets project components. This measure shall be considered in the development and design of planting plans for the project. This is particularly important in areas adjacent to undeveloped habitat, including all areas south of Eaton Street. However, it is recommended that these plants not be used in a whole of the project.
- b. In areas where there is potential for erosion or construction-generated runoff, sedimentation, or dust from construction activities to impact adjacent Habitat Group A through E communities, best management practices (BMPs), such as silt fencing and/or straw wattles, shall be installed on the downslope portion of grading or disturbance areas during project construction activities. This measure applies to Complete Streets improvements south of Eaton Street and adjacent to Loma Alta Creek.

Jurisdictional Wetlands and Waters

No federal or state wetlands or other waters occur within the Complete Streets improvements area; therefore, no direct impacts to jurisdictional wetlands or waters would occur. Jurisdictional wetlands and waters are present within the 50-foot buffer of the Complete Streets improvements at the San Luis Rey River crossing (in the northern end of the project area), the Loma Alta Creek crossing (in the middle of the project area), and Buena Vista Lagoon (at the south end of the project area).

Indirect impacts to federal or state wetlands or other waters could result from work adjacent to the San Luis Rey River, Loma Alta Creek, and Buena Vista Lagoon by contributing to the spread of invasive species or generation of construction-related runoff, sedimentation, or dust. However, work adjacent to the San Luis Rey River would be limited to road restriping and would not require asphalt grinding or other activities that would result in creation of debris, sedimentation, or run-off. Therefore, no indirect impacts would occur to federal or state wetlands or other waters near the San Luis Rey River.

Physical construction activities that could indirectly impact federal or state wetlands or other waters include mid-block crosswalks proposed across Coast Highway adjacent to the Loma Alta Creek footpath (south of the existing Loma Alta Creek bridge) and near the Buena Vista Audubon Society driveway south of Eaton Street near Buena Vista Lagoon. However, implementation of MM Complete Streets BIO-4 would address impacts to federal or state wetlands or other waters.

Wildlife Movement and Habitat Linkages

The Complete Streets improvements would occur entirely within urban/developed areas; therefore, no native habitats with potential to function as wildlife movement corridors or habitat linkage areas would be impacted. Additionally, noise generating activities associated with construction would occur greater than 300 feet away from native habitats that may be used for wildlife movement.

6.2 Incentive District

The Incentive District would provide optional regulations and standards which a developer or property owner may choose in lieu of the existing underlying zoning. Because future development projects that may fall under the Incentive District are not known at this time, this project component is analyzed programmatically.

Special-Status Species

Migratory birds (including raptors) have the potential to occur within the Incentive District area and could be impacted by future development during the breeding season. Removal of trees with nesting birds could result in direct mortality to individuals or eggs, which would be considered a significant impact. Construction noise could also result in a significant impact to breeding activities. MM Incentive District BIO-1 would provide for a preconstruction nesting bird survey and other protection measures by a qualified biologist within 300 feet of construction activities, if construction activities need to take place during the breeding season. With implementation of MM Incentive District BIO-1, impacts to nesting migratory birds would be reduced to a less than significant level.

Special-status wildlife species that have the potential to occur within the Incentive District include burrowing owl, white-faced ibis, California least tern, Ridgway's rail, western yellow bat, and pocketed free-tailed bat. White-faced ibis and California least tern have a low potential to forage in the western portion of Loma Alta Creek; however, indirect impacts to foraging activity resulting from development within the overlay are expected to be less than significant because the creek provides low quality habitat and is not located in close proximity to breeding colonies for these species. Western burrowing owls have a low potential to occur within the disturbed areas south of Vista Avenue and north of Loma Alta Creek. These areas only provide small isolated pockets of habitat and there are no known breeding populations or recent records in the vicinity, thus burrowing owls are not expected to breed or reside at these locations and may only occur as stopover or transient visitors. Therefore, no significant impacts to this species are expected.

Indirect impacts to light-footed Ridgway's rail related to noise during construction activities would occur within 300 feet or less of potential habitats for these species located at Buena Vista Lagoon. Noise above baseline levels during the breeding season at a distance of less than 300 feet would be considered a potentially significant impact to this special-status species. With implementation of MM Incentive District BIO-2, impacts to light-footed Ridgway's rails would be reduced to a less than significant level.

Pocketed free-tailed bats and western yellow bats have a low potential to forage or roost within the Incentive District, but direct and indirect impacts to these species would be less than significant because the developed habitat with ornamental landscaping that is available within the Incentive District is ubiquitous in the region. Western yellow bats also have the potential to have maternity roosts within palm trees within the Incentive District and could be directly impacted by palm tree removal. With implementation of MM Incentive District BIO-3, impacts to western yellow bats would be reduced to a less than significant level.

Future projects implemented under the Incentive District have the potential to directly impact special-status plants where potential habitat for these species occurs within the Incentive District within the disturbed areas along the rail line, north of Loma Alta Creek, and south of Vista Way. Indirect impacts could also result from activities adjacent to habitat due to the introduction or spread of invasive species that compete with special-status plants or the generation of construction-related runoff, sedimentation, or dust that could degrade potential habitat. Implementation of MM Incentive District BIO-4 would provide for appropriate project-specific protection measures such that impacts to special-status plants would be avoided or reduced to a less than significant level.

MM Incentive District BIO-1: Nesting Migratory Birds - If tree removal is required for a project proposed under the Incentive District, tree removal and construction activities shall take place outside of the migratory bird breeding season (February 15 through August 31). If avoidance is not feasible and tree removal is required during the avian breeding season, the following measures shall be followed:

- a. A nesting bird survey of trees planned for removal and within 300 feet of construction activities shall be conducted by a qualified avian biologist no more than one week prior to commencement of tree removal activities. A qualified avian biologist refers to a person with the ability to identify birds present in San Diego County to the species level by sight or sound and who is familiar with the breeding and nesting behaviors of native bird species.
- b. If active nests with eggs or chicks of bird species protected under the MBTA are detected within trees or shrubs planned for removal, the trees will remain in place until it has been determined by the avian biologist that the nest is no longer active. If active nests are detected within 300 feet of physical construction activities, an appropriate buffer shall be determined by the avian biologist and no work shall take place within the buffer until it is determined that the nest is no longer active. Additional visits after the initial survey shall be conducted as necessary to determine that nests are no longer active.

MM Incentive District BIO-2: Light-footed Ridgeway's Rails - For development activities occurring less than 300 feet from potential light-footed Ridgeway's rail habitat associated with Buena Vista Lagoon (development southwest of the intersection of Eaton Street and South Coast Highway), focused protocol surveys shall be conducted by a permitted biologist. If no rails are detected, construction may commence. If rails are detected, consultation with the USFWS would be required and may include non-disturbance areas within 300 feet of territories, implementation of noise attenuation measures, and/or daily biological monitoring and daily noise monitoring during the course of construction activities to confirm that construction activities are not adversely impacting nesting or foraging activities.

MM Incentive District BIO-3: Special-Status Bats – This mitigation measure shall be required if removal of palm trees (which may contain western yellow bats) is proposed as part of a project proposed under the Incentive District. To avoid impacts to western yellow bats, a qualified biologist (a biologist with the ability to identify bat guano and assess habitat suitability for western yellow bats.) shall inspect the base of palm skirts for guano prior to removal of skirted

palm trees (i.e. palm trees with several layers of accumulated dead fronds). If bats are detected, tree removal shall avoid the yellow bat maternity season (June 1 through August 31). If tree removal cannot avoid the maternity season, project-specific bat mitigation protocols shall be identified and implemented by a qualified bat biologist and approved by CDFW. The protocols may require installation of bat exclusionary devices, followed by up to four weeks of nightly monitoring by a qualified biologist to confirm bats are being excluded without harm until it is determined bats are no longer present. The protocols may also require construction of substitute bat habitat (i.e., bat boxes, artificial tree structures) in the vicinity of bat-occupied palm trees, followed by monitoring by a qualified biologist to confirm bats are using the bat habitat.

MM Incentive District BIO-4: Rare Plants - To avoid impacts to narrow endemic rare plants, including Nuttall's lotus, Coulter's saltbush, smooth tarplant, Orcutt's pincushion, Blochman's dudleya, cliff spurge, San Diego barrel cactus, decumbent goldenbush, sea dahlia, and spreading navarretia that may occur within the Incentive District, a qualified rare plant biologist shall conduct a preconstruction rare plant survey in areas with potential habitat for rare plants, including in areas that are considered disturbed. Qualified rare plant biologist refers to a person with knowledge of these species (appropriate plant survey windows and species identification). The qualified rare plant biological shall work with the City to identify project-specific measures that are consistent with the specifications of the Multiple Habitat Conservation Program and these measures shall be implemented prior to and concurrent with project construction, as applicable. Measures may include salvage of rare plants prior to construction, transfer of salvaged plants within similar habitat in non-impacted areas, followed up with monitoring by a qualified biologist to confirm at least 80% survival of salvaged plants.

Vegetation Communities

Future development and redevelopment which could occur under the Incentive District could result in direct impacts to riparian habitat and other sensitive natural communities through habitat removal or alteration, specifically within non-developed areas southwest of the intersection of Eaton Street and South Coast Highway, immediately north of Loma Alta Creek and along the railroad tracks. In addition, potential indirect effects, such as spread of invasive species or generation of construction-related runoff, sedimentation, or dust, may occur to adjacent vegetation communities associated with Loma Alta Creek and Buena Vista Lagoon. However, implementation of MM Incentive District BIO-5 would reduce direct and indirect impacts to adjacent vegetation communities from habitat removal or alteration, invasive species, construction-related runoff, sedimentation, and dust to less than significant.

MM Incentive District BIO-5: Impacts to Sensitive Vegetation Communities - To avoid indirect and direct impacts to riparian habitats and sensitive natural communities near the San Luis Rey River, Loma Alta Creek, and Buena Vista Lagoon, the following measures shall be implemented:

- a. For non-developed areas southwest of the intersection of Eaton Street and South Coast Highway, immediately north of Loma Alta Creek and along the railroad tracks, the following measures shall be implemented to protect sensitive riparian or upland vegetation communities.

- i. A site-specific assessment of biological resources by qualified biologist shall be conducted to confirm the absence or presence of sensitive biological resources prior to the City’s approval of project plans. The qualified biologist shall determine the site-specific habitat type.
- ii. If the vegetation communities outlined in Table 6-1 would not be directly impacted by the proposed development project, no further assessment would be required.
- iii. If there is potential for riparian, wetland, and/or sensitive upland communities to be impacted, these impacts would be required to be compensated according to vegetation community type at the ratios provided in Table 6-1 which supports the Multiple Habitat Conservation Program policy for no net loss of wetland/riparian vegetation and incorporates the mitigation ratios implemented in the City Subarea Plan. For impacts to these riparian and upland areas, a restoration/revegetation plan shall be prepared by a qualified restoration ecologist (experienced with riparian and upland restoration/revegetation planning) in coordination with the City and implemented by an experienced restoration contractor, with oversight by the City.

**TABLE 6-1
MITIGATION RATIOS FOR IMPACTS TO VEGETATION COMMUNITIES**

Vegetation Community/Land Cover Type	MHCP Habitat Group ¹	Location of Impact within Coastal Zone, Pre-approved Mitigation Area ² , or FPA	Location of Impact Outside of FPA
Riparian and Wetlands¹			
Disturbed Wetland (11200)	A	1:1 to 2:1	1:1 to 2:1
Emergent Wetland (52440)	A	4:1	4:1
Coastal Brackish Marsh (52200)	A	4:1	4:1
Coastal and Valley Freshwater Marsh (52410)	A	4:1	4:1
Brackishwater Estuary (64133)	A	4:1	4:1
Non-Vegetated Floodplain or Channel (64200)	A	1:1 to 2:1	1:1 to 2:1
Non-Native Riparian (65000)	A	3:1	3:1
Uplands			
Diegan Coastal Sage Scrub (32500)	C	3:1	3:1
Flat-topped Buckwheat (32800)	D	1:1	0.5:1

¹ The wetlands mitigation ratios should provide a standard for each habitat type but may be adjusted depending on the functions and values of both the impacted wetlands as well as the wetlands mitigation proposed by the project. The City may also consider the types of wetland habitat being impacted and utilized for mitigation in establishing whether these standards have been met. All impacts to riparian/wetland habitats and mitigation for such impacts must be reviewed and approved by Federal and State agencies with jurisdiction over these vegetation communities.

² Pre-approved mitigation areas are depicted on Figure 6

SOURCE: SANDAG 2003; City of Oceanside 2010.

- b. The City shall prohibit the use of species with a rating of moderate or high on the California Invasive Plant Council Inventory Database in landscape plans used for

development southwest of the corner of Eaton Street and South Coast Highway that is adjacent to undeveloped habitat.

- c. In areas where there is potential for erosion or construction-generated runoff, sedimentation, or dust from construction activities to impact adjacent Habitat Group A through E communities, best management practices (BMPs), such as silt fencing and/or straw wattles, shall be installed on the downslope portion of grading or disturbance areas during project construction activities. This measure applies to development southwest of intersection of Eaton Street and South Coast Highway and adjacent to Loma Alta Creek.

Jurisdictional Wetlands and Waters

Jurisdictional wetlands and waters within the Incentive District include Loma Alta Creek, a small patch of coastal brackish marsh comprised of saltgrass (*Distichlis* sp.) associated with Buena Vista Lagoon, and a small isolated disturbed wetland near the intersection of Cassidy Street and Broadway Street. Loma Alta Creek is within a concrete flood control channel; therefore, development activities associated with the Incentive District are unlikely to occur at this location. The disturbed wetland located near the intersection of Cassidy Street and Broadway Street is within the rail corridor which is designated as Public Utility Transportation Zone. This area is not considered developable per the land use/zoning designation. Additionally, all wetland areas within the Incentive District are subject to the no net loss policies of the MHCP and City Subarea Plan. While no significant impacts are anticipated to currently known wetland resources, the presence and distribution of wetland resources can change over time and a formal wetland delineation was not conducted throughout the entire Incentive District area; therefore, to ensure no impacts to jurisdictional wetlands and waters would occur, the following measure shall be implemented.

MM Incentive District BIO-6: Wetlands and Waters - Individual development projects implemented under the Incentive District that would impact the areas southwest of the intersection of Eaton Street and South Coast Highway or adjacent to or within Loma Alta Creek may include jurisdictional wetlands or waters and shall be subject to a site-specific assessment of biological resources prior to the City's approval of project plans. If it is determined through the site-specific assessment that excavation, fill, or other modification of wetlands and waters under the jurisdiction of the United States Army Corps of Engineers (USACE), Regional Water Quality Control Board, and California Department of Fish and Wildlife would occur as a result of the project, the project proponent shall be required to conduct a formal jurisdictional delineation in accordance with the *U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987), and *Regional Supplement to the Corps of Engineers Wetlands Delineation Manual: Arid West Region (Version 2.0)* (USACE 2008). Permits from the respective regulatory agencies shall also be required, and will likely require mitigation resulting in no net loss of jurisdictional wetlands and waters. It is intended that implementation of the mitigation required through the project permits be consistent and meet the Multiple Habitat Conservation Program goal of no net loss of jurisdictional wetlands and waters.

Wildlife Movement and Habitat Linkages

Future development that may occur under the Incentive District would be prioritized within urban/developed areas which have limited potential to support wildlife movement or habitat linkages, but may occur within undeveloped habitat that function as habitat linkages. These types of impacts are consistent with those direct impacts discussed for sensitive vegetation communities such as habitat removal or alteration, and indirect impacts such as invasive species, construction-related runoff, sedimentation, and dust. Implementation of MM Incentive District BIO-5 would reduce direct and indirect impacts to habitat linkages to less than significant. Also, indirect impacts due to noise are not expected because the Incentive District is greater than 300 feet from areas identified as wildlife corridor planning zones in the City Subarea Plan.

7. Conclusion

Based on this review of biological resources within the BSA, implementation of the proposed project has the potential to impact vegetation communities, jurisdictional wetlands and waters, special-status species, and wildlife corridors. However, with implementation of mitigation measures outlined in Section 6, no significant impacts to biological resources would be expected to occur with implementation of the proposed project.

8. References

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APPENDIX A

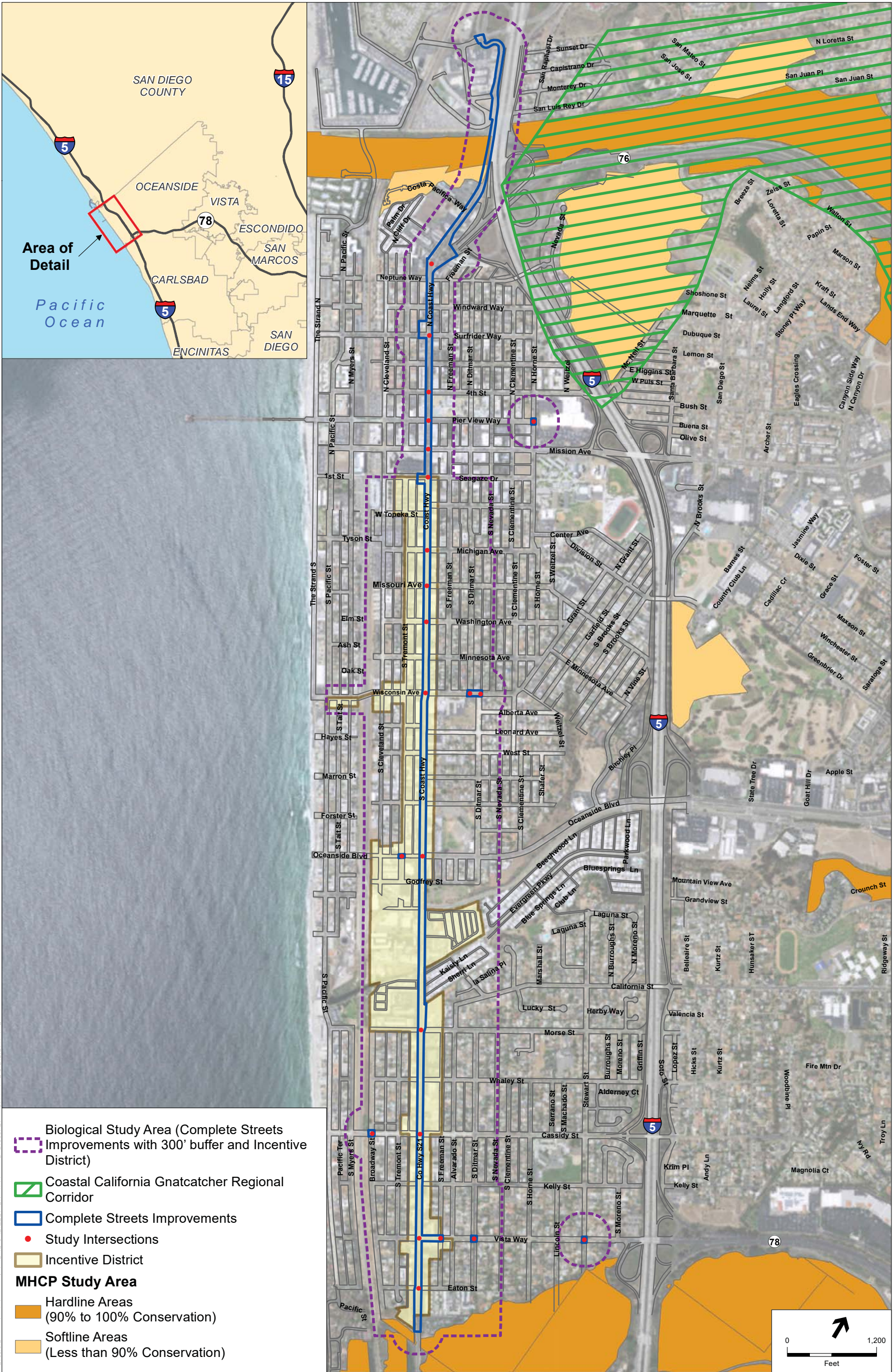
Figures



SOURCE: City of Oceanside 2016

City of Oceanside Coast Highway Corridor Study. 130217

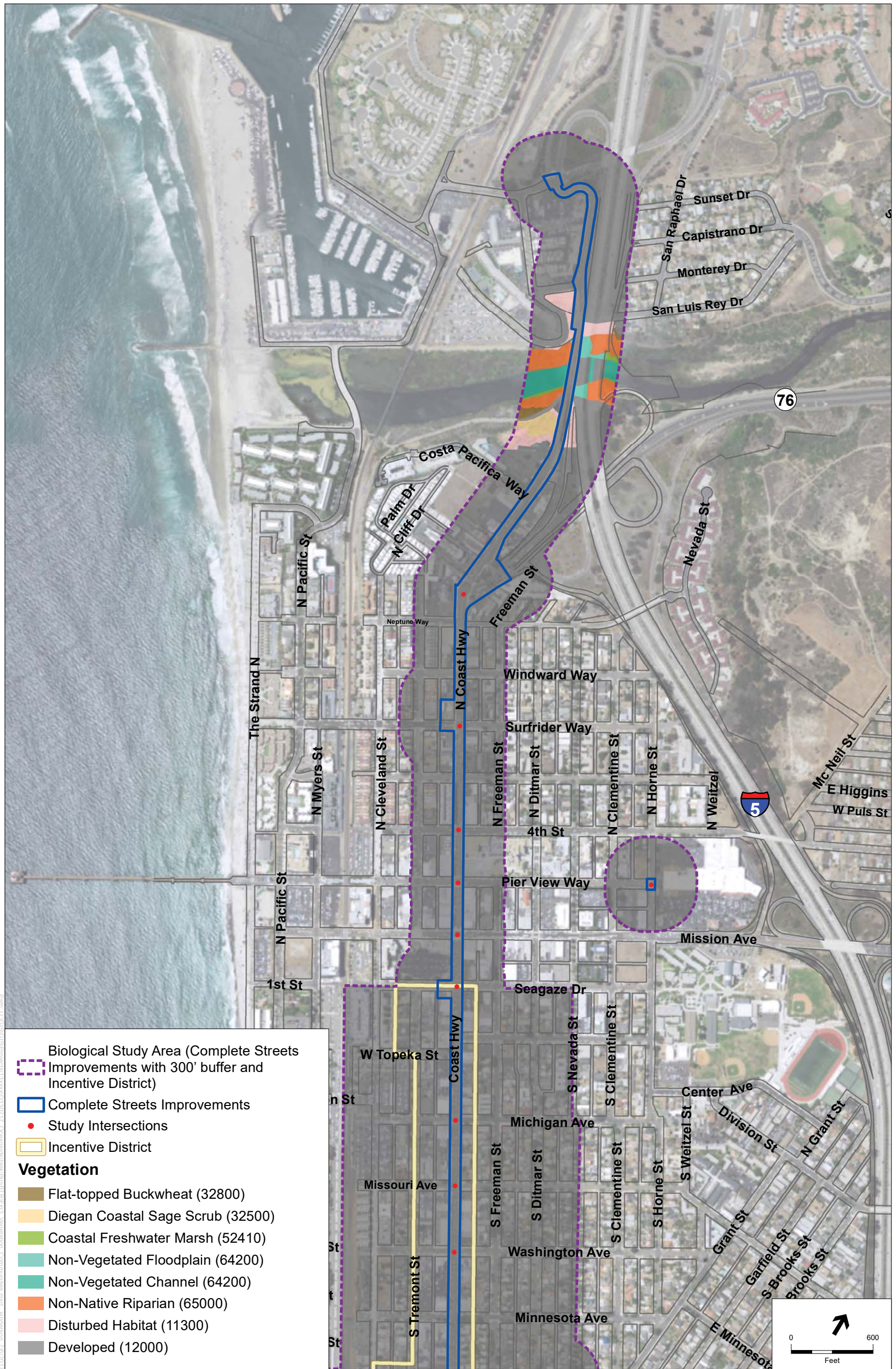
Figure 1
Project Area and Vicinity



SOURCE: City of Oceanside 2016

City of Oceanside Coast Highway Corridor Study. 130217

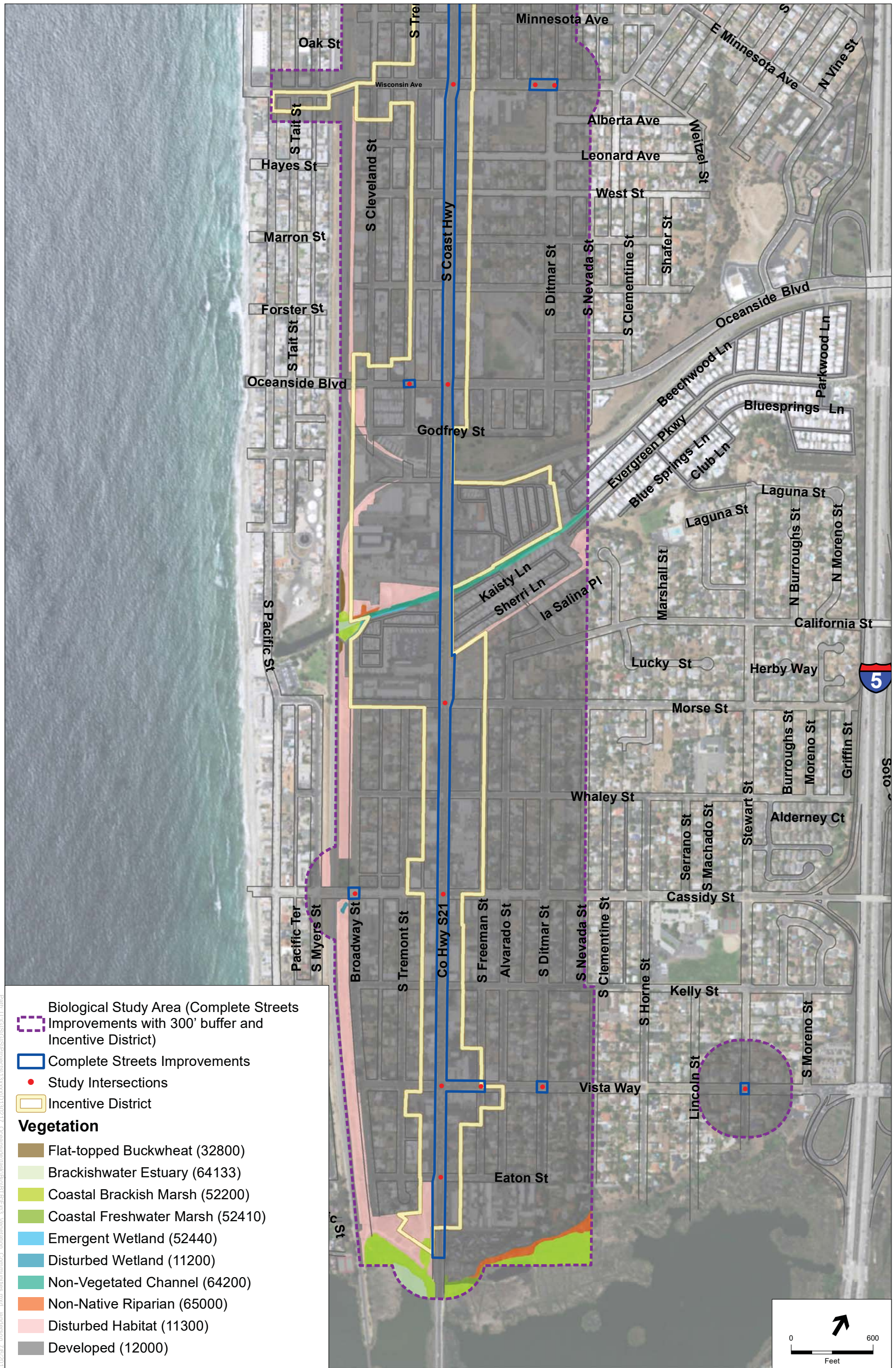
Figure 2
Project Biological Study Area



SOURCE: City of Oceanside 2016

City of Oceanside Coast Highway Corridor Study. 130217

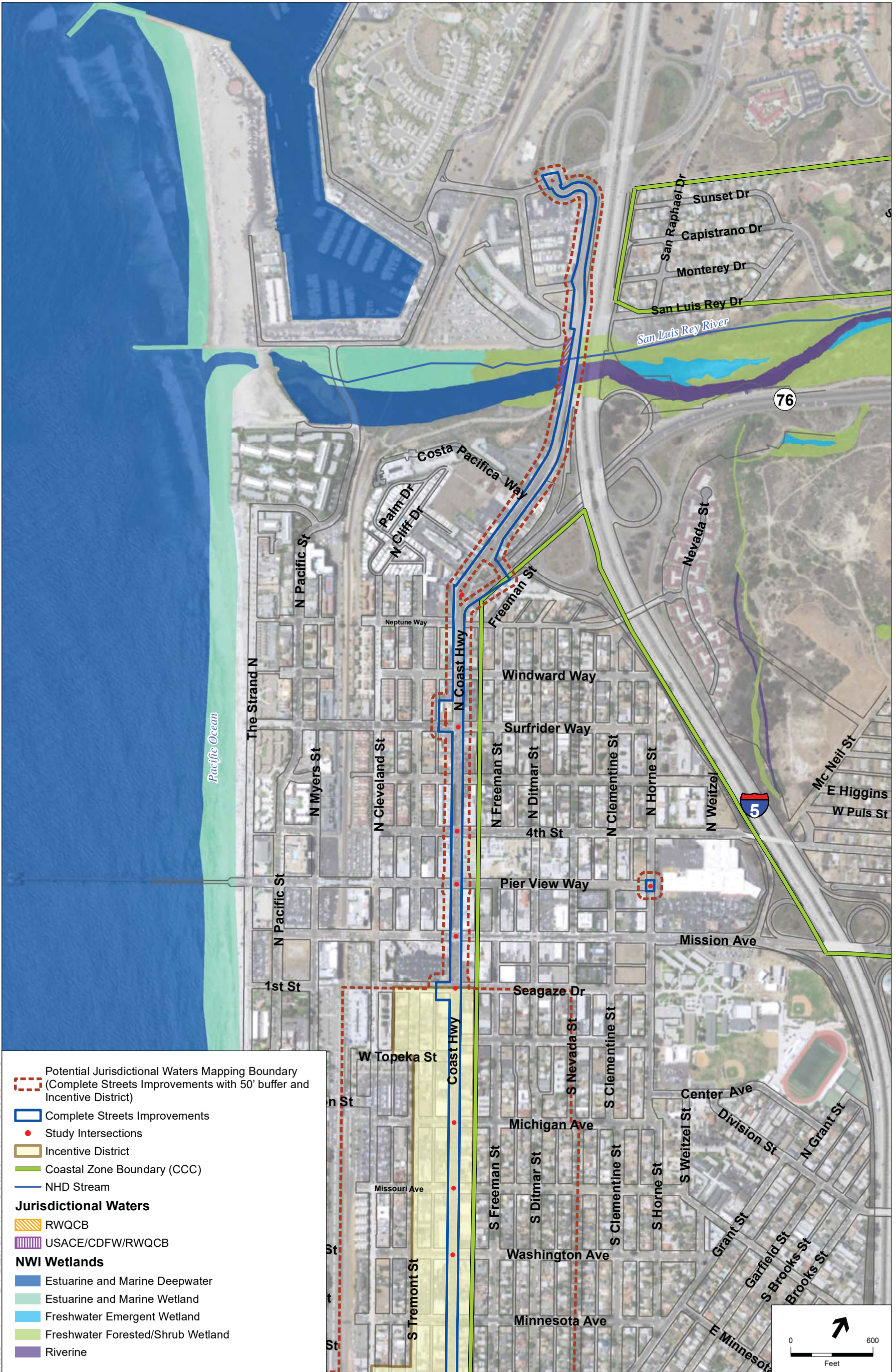
Figure 3
Vegetation Communities



SOURCE: City of Oceanside 2016

City of Oceanside Coast Highway Corridor Study. 130217

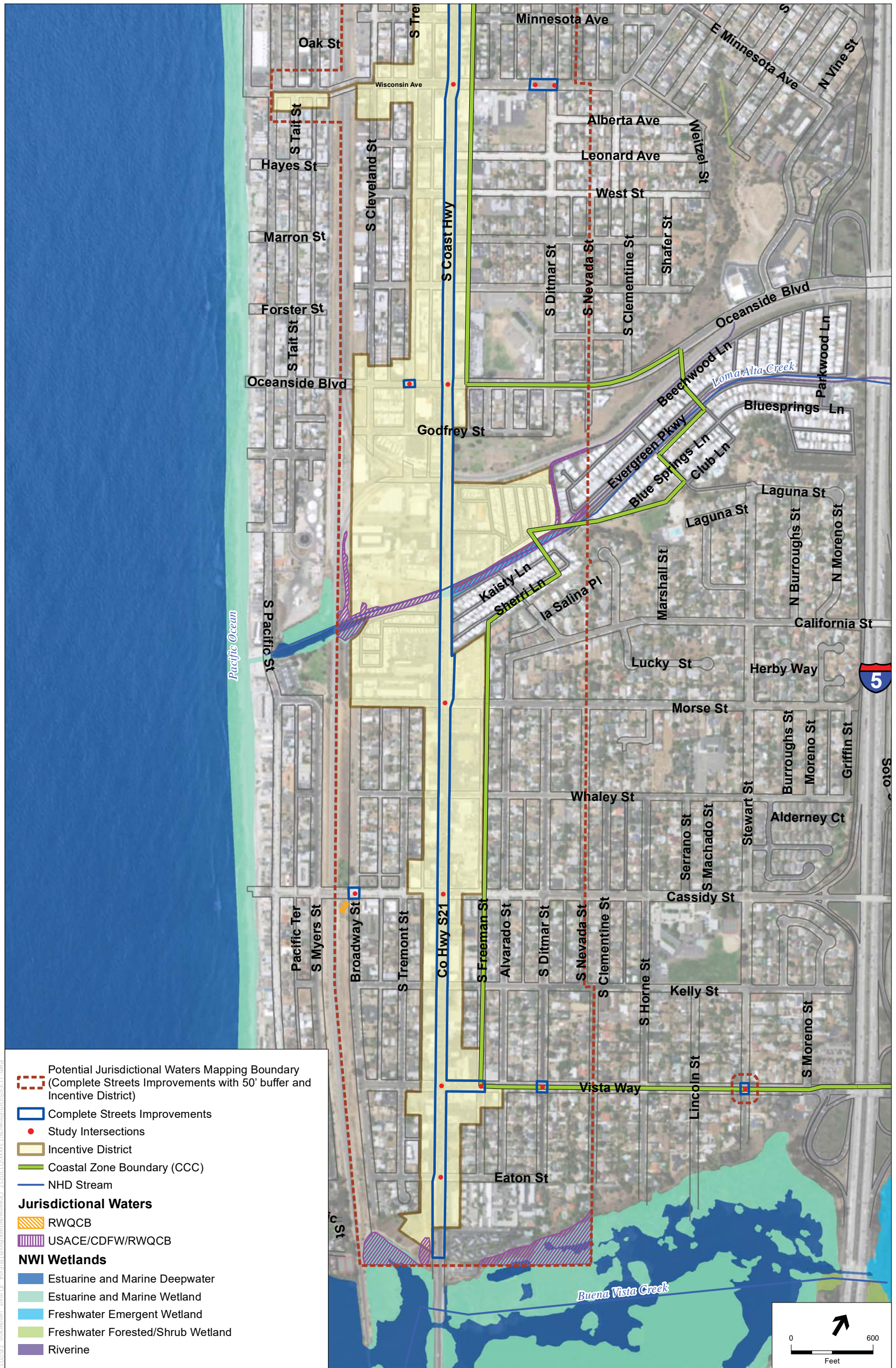
Figure 3
Vegetation Communities



SOURCE: City of Oceanside 2016, National Wetlands Inventory, National Hydrography Dataset, California Coastal Commission

City of Oceanside Coast Highway Corridor Study. 130217

Figure 4
Jurisdictional Waters



SOURCE: City of Oceanside 2016, National Wetlands Inventory, National Hydrography Dataset, California Coastal Commission

City of Oceanside Coast Highway Corridor Study. 130217

Figure 4
Jurisdictional Waters

One Mile Boundary

Complete Streets Improvements

Study Intersection

Incentive District

Sanbios Occurrences

- 3 Belding's savannah sparrow
- 7 California gnatcatcher
- 15 Least Bell's vireo
- 17 Light footed clapper rail
- 20 Pacific pocket mouse
- 23 San Diego black tailed jackrabbit
- 25 Two stripe garter snake
- 26 Western burrowing owl
- 28 Western yellow bat

USFWS Species Occurrences

- 1 California least tern
- 2 coastal California gnatcatcher
- 3 least Bell's vireo
- 4 light-footed Ridgway's rail
- 5 tidewater goby

CNDDB Occurrences

Plants

- 1 Blochman's dudleya
- 2 Coulter's saltbush
- 3 Nuttall's acmispon
- 4 Orcutt's pincushion
- 5 San Diego barrel cactus
- 6 San Diego button-celery
- 7 coast woolly-heads
- 8 decumbent goldenbush
- 9 sea dahlia
- 10 slender cottonheads
- 11 smooth tarplant
- 12 spreading navarretia
- 13 sticky dudleya

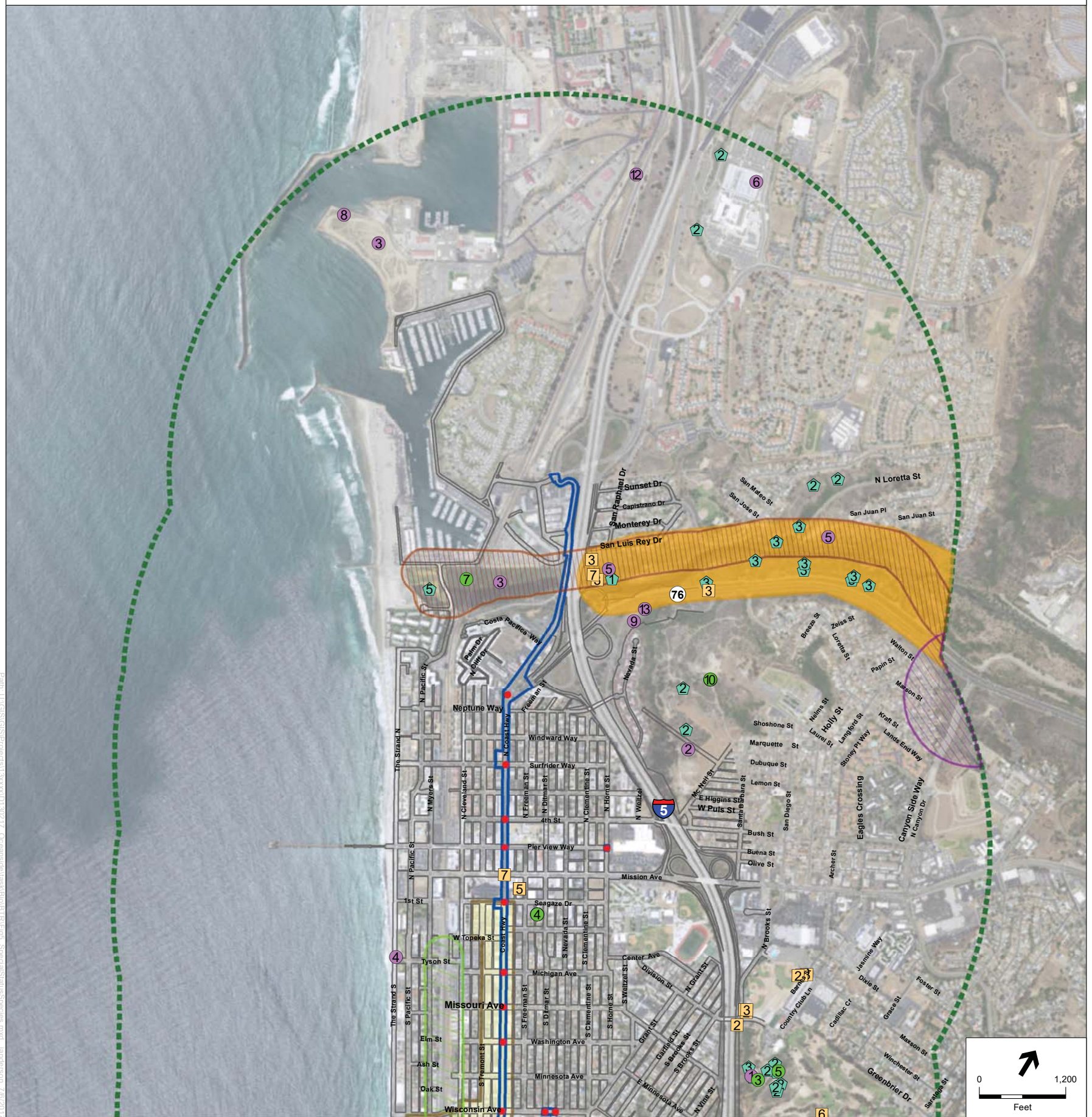
Orcutt's pincushion

Cliff Spurge

Sticky Dudleya

Animals

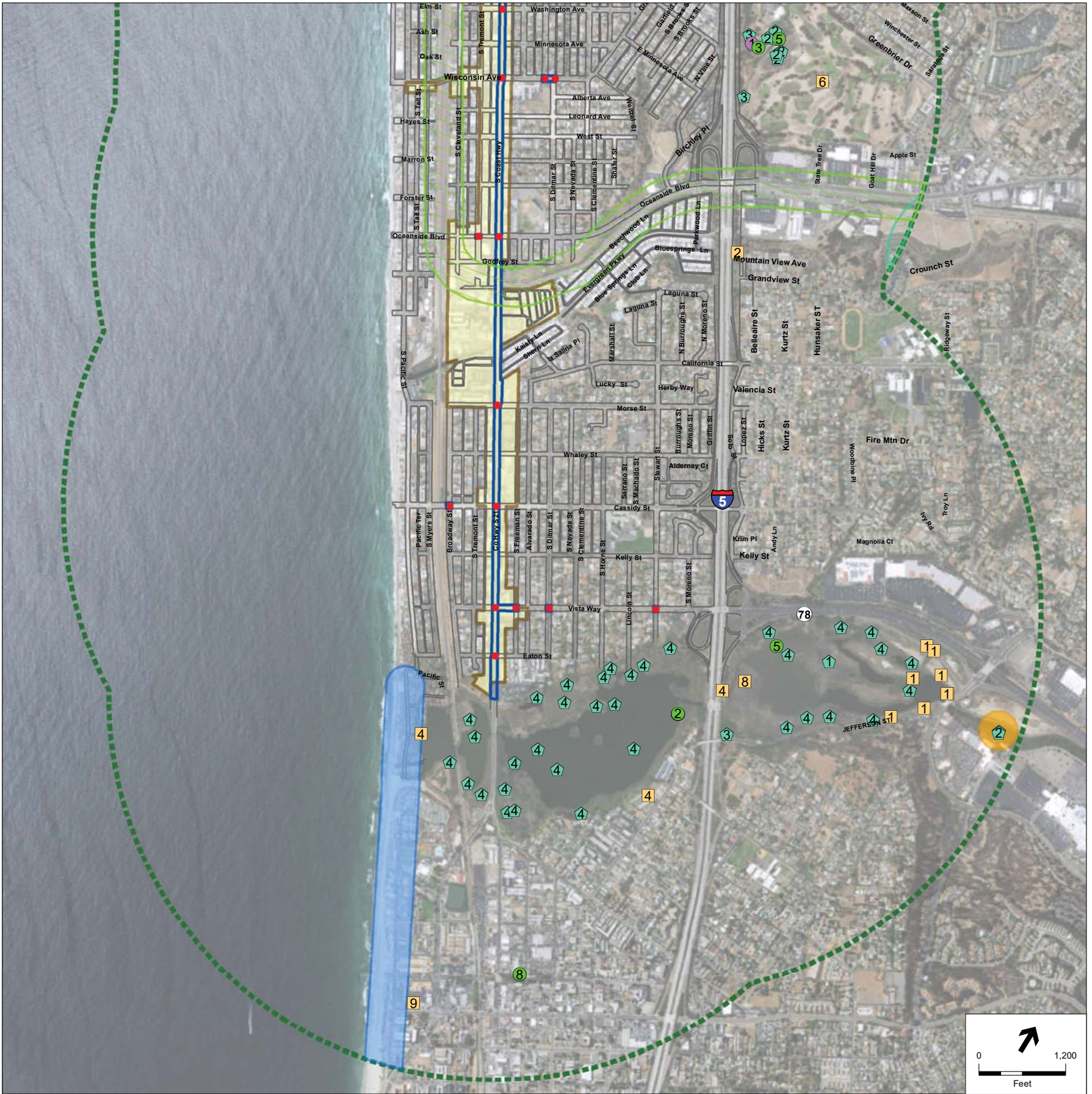
- 1 Belding's savannah sparrow
- 2 California least tern
- 3 San Diego black-tailed jackrabbit
- 4 bank swallow
- 5 coastal California gnatcatcher
- 6 lesser long-nosed bat
- 7 light-footed clapper rail
- 8 pocketed free-tailed bat
- 9 red-diamond rattlesnake
- 10 southern California rufous-crowned sparrow
- 11 tidewater goby
- 12 western snowy plover
- 13 western yellow bat
- 14 white-faced ibis
- Coastal California Gnatcatcher
- Least Bell's Vireo
- Tidewater Goby



SOURCE: City of Oceanside 2016; CNDDB 2016; SanGIS 2016; USFWS 2016

City of Oceanside Coast Highway Corridor Study. 130217

Figure 5
Special Status Species



One Mile Boundary

Complete Streets Improvements

Study Intersection

Incentive District

Sanbios Occurrences

- 3 Belding's savannah sparrow
- 7 California gnatcatcher
- 15 Least Bell's vireo
- 17 Light footed clapper rail
- 20 Pacific pocket mouse
- 23 San Diego black tailed jackrabbit
- 25 Two stripe garter snake
- 26 Western burrowing owl
- 28 Western yellow bat

USFWS Species Occurrences

- 1 California least tern
- 2 coastal California gnatcatcher
- 3 least Bell's vireo
- 4 light-footed Ridgway's rail
- 5 tidewater goby

CNDDDB Occurrences

Plants

- 1 Blochman's dudleya
- 2 Coulter's saltbush
- 3 Nuttall's acmispon
- 4 Orcutt's pincushion
- 5 San Diego barrel cactus
- 6 San Diego button-celery
- 7 coast woolly-heads
- 8 decumbent goldenbush
- 9 sea dahlia
- 10 slender cottonheads
- 11 smooth tarplant
- 12 spreading navarretia
- 13 sticky dudleya

Orcutt's pincushion

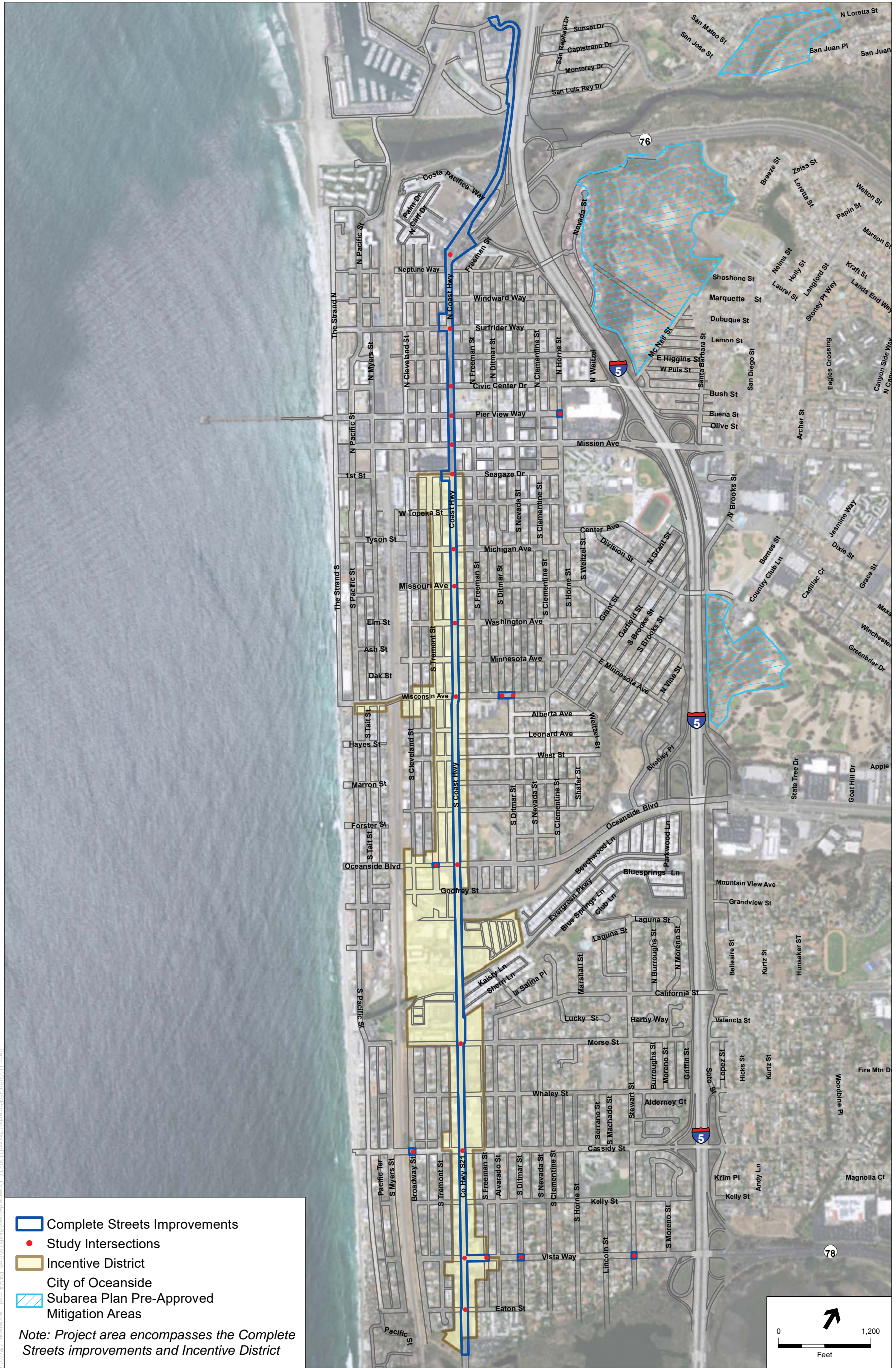
Cliff Spurge

Sticky Dudleya

Animals

- 1 Belding's savannah sparrow
- 2 California least tern
- 3 San Diego black-tailed jackrabbit
- 4 bank swallow
- 5 coastal California gnatcatcher
- 6 lesser long-nosed bat
- 7 light-footed clapper rail
- 8 pocketed free-tailed bat
- 9 red-diamond rattlesnake
- 10 southern California rufous-crowned sparrow
- 11 tidewater goby
- 12 western snowy plover
- 13 western yellow bat
- 14 white-faced ibis
- Coastal California Gnatcatcher
- Least Bell's Vireo
- Tidewater Goby

Path: D:\GIS\GISProjects\13000\01\30217\02\amend\Task\01\01\Fig5_SpecialStatusSpecies.mxd; janderson; 7/18/2017



SOURCE: City of Oceanside 2016; SanGIS 2016

City of Oceanside Coast Highway Corridor Study. 130217

Figure 6
City of Oceanside Subarea Plan Pre-Approved Mitigation Areas

APPENDIX B

Site Photographs



1 – Outer extent of coastal brackish marsh associated with Buena Vista Lagoon where *Typha* transitions into *Distichlis*.



2 – Loma Alta Creek concrete-lined channel.



3 – Lower (western) segment of Loma Alta Creek with marsh habitat.



4 – Southwest side of San Luis Rey River, showing coastal sage scrub slope in foreground and non-native riparian in background.



5 – Highway overpass at San Luis Rey River, showing unvegetated floodplain.



6 – Disturbed habitat, possibly undergoing restoration and eucalyptus removal on southwest side of San Luis Rey River.

APPENDIX C

CNDDDB Special-Status Species Records within One Mile

Scientific Name	Common Name	Presence	Most Recent Year of Record	Age of Record (since 2016)	Federal Status	State Status	California Rare Plant Rank	CDFW Status
Plants								
<i>Acmispon prostratus</i>	Nuttall's acmispon	Presumed Extant	2001	15	None	None	1B.1	-
<i>Atriplex coulteri</i>	Coulter's saltbush	Presumed Extant	2014	2	None	None	1B.2	-
<i>Centromadia pungens ssp. laevis</i>	smooth tarplant	Presumed Extant	1897	119	None	None	1B.1	-
<i>Chaenactis glabriuscula var. orcuttiana</i>	Orcutt's pincushion	Possibly Extirpated	1933	83	None	None	1B.1	-
<i>Dudleya blochmaniae ssp. blochmaniae</i>	Blochman's dudleya	Presumed Extant	2001	15	None	None	1B.1	-
<i>Dudleya viscida</i>	sticky dudleya	Presumed Extant	Unk.	-	None	None	1B.2	-
<i>Eryngium aristulatum var. parishii</i>	San Diego button-celery	Possibly Extirpated	1897	119	Endangered	Endangered	1B.1	-
<i>Ferocactus viridescens</i>	San Diego barrel cactus	Presumed Extant	1979	37	None	None	2B.1	-
<i>Ferocactus viridescens</i>	San Diego barrel cactus	Presumed Extant	2015	1	None	None	2B.1	-
<i>Leptosyne maritima</i>	sea dahlia	Presumed Extant	2014	2	None	None	2B.2	-
<i>Nemacaulis denudata var. denudata</i>	coast woolly-heads	Presumed Extant	1933	83	None	None	1B.2	-
<i>Nemacaulis denudata var. gracilis</i>	slender cottonheads	Possibly Extirpated	1923	93	None	None	2B.2	-
Fish								
<i>Eucyclogobius newberryi</i>	tidewater goby	Possibly Extirpated	1984	32	Endangered	None	-	SSC
Reptiles								
<i>Crotalus ruber</i>	red-diamond rattlesnake	Presumed Extant	1993	23	None	None	-	SSC

Scientific Name	Common Name	Presence	Most Recent Year of Record	Age of Record (since 2016)	Federal Status	State Status	California Rare Plant Rank	CDFW Status
Birds								
<i>Aimophila ruficeps canescens</i>	southern California rufous-crowned sparrow	Presumed Extant	1993	23	None	None	-	WL
<i>Charadrius alexandrinus nivosus</i>	western snowy plover	Extirpated	1995	21	Threatened	None	-	SSC
<i>Passerculus sandwichensis beldingi</i>	Belding's savannah sparrow	Presumed Extant	2001	15	None	Endangered	-	
<i>Plegadis chihi</i>	white-faced ibis	Presumed Extant	1979	37	None	None	-	WL
<i>Polioptila californica californica</i>	coastal California gnatcatcher	Presumed Extant	1980	36	Threatened	None	-	SSC
<i>Polioptila californica californica</i>	coastal California gnatcatcher	Presumed Extant	1993	23	Threatened	None	-	SSC
<i>Polioptila californica californica</i>	coastal California gnatcatcher	Presumed Extant	2001	15	Threatened	None	-	SSC
<i>Rallus longirostris levipes</i>	light-footed clapper rail	Presumed Extant	2007	9	Endangered	Endangered	-	FP
<i>Rallus longirostris levipes</i>	light-footed clapper rail	Possibly Extirpated	2007	9	Endangered	Endangered	-	FP
<i>Riparia riparia</i>	bank swallow	Extirpated	1925	91	None	Threatened	-	
<i>Sternula antillarum browni</i>	California least tern	Presumed Extant	1992	24	Endangered	Endangered	-	FP
Mammals								
<i>Lasiurus xanthinus</i>	western yellow bat	Presumed Extant	1985	31	None	None	-	SSC
<i>Leptonycteris yerbabuena</i>	lesser long-nosed bat	Presumed Extant	1996	20	Endangered	None	-	
<i>Lepus californicus bennettii</i>	San Diego black-tailed jackrabbit	Presumed Extant	2001	15	None	None	-	SSC
<i>Nyctinomops femorosaccus</i>	pocketed free-tailed bat	Presumed Extant	1986	30	None	None	-	SSC