Appendix D
Biological Resources Report

ROCKS
BIOLOGICAL CONSULTING



ROHR > WOHL
SPECIFIC PLAN PROJECT
BIOLOGICAL RESOURCES REPORT

San Diego County, California

March 17, 2023

Prepared for:
PW Wohl G Street LLC
2251 San Diego Avenue, A247
San Diego, CA 92110

Prepared by:
Rocks Biological Consulting
4312 Rialto Street
San Diego, CA 92107
(619) 701-6798

TABLE of CONTENTS

TAbLES

FIGURES

APPENDICES

1 SUMMARY

This report has been prepared in conformance with the City of Chula Vista (City) Multiple Species Conservation Program (MSCP) Subarea Plan (2003) and the California Environmental Quality Act (CEQA) for the proposed Rohr > Wohl Specific Plan Project (project) in the City of Chula Vista, California. The proposed project would redevelop an existing industrial property where operations have ceased.

The project is not within a City Conservation Preserve Area (Preserve), but a Preserve does occur approximately 500-feet north of the project site. The proposed project will not result in significant impacts on biological resources, including native habitats and conserved lands, with incorporation of the permit conditions outlined in Section 7.

The site does not appear to support waters of the U.S./State jurisdictional by the U.S. Army Corps of Engineers (Corps) and Regional Water Quality Control Board (RWQCB); streambed and associated riparian/wetland habitat jurisdictional by the California Department of Fish and Wildlife (CDFW); or wetlands jurisdictional by the California Coastal Commission (CCC).

Biological resources within the project site and adjacent lands and impacts on those resources were assessed and are described herein for the purpose of analyzing project conformance with local, state, and federal biological regulations. Permit conditions for potential biological impacts are also recommended pursuant to City MSCP Subarea Plan (2003).

Please note that this report analyzes potential impacts resulting from existing structure demolition and site preparation. This analysis assumes the entire project site will be impacted. Above-ground infrastructure plans for the site have not been finalized; therefore, conclusive determinations of the significance of potential impacts resulting from building construction and ancillary site development are not provided within this report.

2 INTRODUCTION

2.1 PROJECT LOCATION

The project site is located along the southern end of the San Diego Bay, approximately 100 feet west of Interstate 5 (I-5), in the City of Chula Vista, San Diego County, California. The project site is roughly bounded by G Street to the north, I-5 and Bay Boulevard to the east, H Street to the south, and Marina Parkway to the west (Figure 1). Sweetwater River is located approximately one mile north of the project site. The project is divided into three Planning Areas (Planning Area A, Planning Area B-1, and Planning Area B-2), totaling approximately 44.8 acres (Figure 2).

The project site lies within the southwest portion of the United States Geological Survey (USGS) National City 7.5-minute topographic quadrangle in Section 4; Township 18 South; Range 2 West.

2.2 PROJECT DESCRIPTION

The proposed project would redevelop an existing industrial property where operations have ceased. Within the existing industrial property, two vacant buildings of approximately 36,000 square feet (SF) and 600,500 SF and one guard shack of approximately 1,150 SF would be demolished. Existing pavement within the project site would be removed, resulting in pervious surfaces, which would later be addressed with soil remediation. Figures 1 and 2 detail the project site and study area.

2.3 SCOPE OF WORK

This report provides an analysis of potential impacts on biological resources associated with the proposed project in the context of the City MSCP Subarea Plan (2003), CEQA (California Public Resources Code §§ 21000 et seq.), and state and federal regulations such as the federal Endangered Species Act (FESA; 16 U.S. Code [U.S.C.] § 1531 et seq.), Clean Water Act (CWA; 33 U.S.C. §1251 et seq.), and the California Fish and Game Code (CFGC).

For this analysis, the following tasks were performed: (1) biological and aquatic resource database review; (2) general biological survey and vegetation mapping; (3) habitat assessments for special-status plant and wildlife species; and (4) a constraints-level assessment for areas potentially jurisdictional under the Corps pursuant to Section 404 of the CWA, under the RWQCB pursuant to Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne Act; California Water Code § 13000 et seq.), under the CCC pursuant to the California Coastal Act (CCA; Public Resources Code § 3000 et seq.), and under the CDFW pursuant to Section 1602 of the CFGC. No focused surveys for sensitive plants or wildlife were conducted, but locations of such species, if observed, were documented.

2.4 REGULATORY FRAMEWORK

Several regulations have been established by federal, state, and local agencies to protect and conserve biological resources as listed below. Detailed descriptions of agency regulations that may be applicable to the project are provided in Appendix A.

Federal Regulations

- FESA
- Migratory Bird Treaty Act (MBTA)
- CWA

State Regulations

- California Endangered Species Act (CESA)
- CCA
- CEQA
- Native Plant Protection Act and Natural Community Conservation Planning (NCCP) Act
- CFGC Sections 1600-1602
- CFGC Sections 3503, 3511, 3513, 3800, 4700, 5050, and 5515
- Porter-Cologne Act

Regional and Local Plans

- City MSCP Subarea Plan

3 METHODS AND SURVEY LIMITATIONS

This study comprised of the following activities:

- Analysis of existing biological information within the study area
- General biological survey and vegetation mapping
- Habitat assessments for special-status species
- Analysis of potential project impacts on biological resources
- Analysis of project conformance with local, state, and federal biological regulations

Rocks Biological Consulting (RBC) prepared for surveys by creating field maps using a Geographic Information System (GIS) for the *National City* USGS 7.5-minute quadrangle. RBC queried CDFW's California Natural Diversity Database (CNDDB; CDFW 2022a) and the database of threatened/endangered U.S. Fish and Wildlife Service (USFWS) species (USFWS 2022a) for a three-mile radius around the project site. In addition, the USFWS Information for Planning and Consultation (IPaC) Database was utilized to identify federally listed species that have potential to occur based on their known or expected ranges (USFWS 2022b). RBC also queried the California Native Plant Society (CNPS) Electronic Inventory (CNPS 2019) for the nine USGS 7.5' quadrangles surrounding the project site within the elevation range of 0 to 100 feet above mean sea level (amsl). RBC also queried the Natural Resources Conservation Service (NRCS; NRCS 2022) for the soils present on the project site.

RBC biologists Shannon Mindeman and Hannah Swarthout visited the project site on April 27, 2022, to conduct general biological surveys for flora and fauna, vegetation mapping, and a constraints-level assessment for jurisdictional wetlands/waters. Binoculars (10 x 42) were used to aid in the observation of species during the survey. RBC biologists identified plant species using *The Jepson Manual: Vascular Plants of California* (Baldwin et al. 2012) and local botanical knowledge. For general biological surveys, faunal activity at the time was moderate and most spring season species would have been observable; however, late spring and summer flowering species would not have been present.

All plant and wildlife species observed on the project site are presented in Appendices C and D; common names for plant species follow Simpson and Rebman (2006) and wildlife common names follow CDFW's *Complete List of Amphibian, Reptile, Bird and Mammal Species in California* (CDFW 2016).

RBC mapped vegetation on the project site plus a 100-foot buffer, defined as the study area. Vegetation mapping took place directly on a 150-scale (1" = 150') aerial photograph and followed *Draft Vegetation Communities of San Diego County* (Oberbauer 2008).

RBC also utilized the aforementioned database queries to assess the potential for special-status species to occur within the study area, which was refined by considering the habitat affinities of each species, the results of field habitat assessments, vegetation mapping, and knowledge of local biological resources.

RBC conducted a constraints-level aquatic resources assessment of the project site and study area to identify areas that may be considered potentially jurisdictional under the Corps pursuant to Section 404 of the CWA; the RWQCB pursuant to Section 401 of the CWA and the Porter-

Cologne Act; CDFW pursuant to CFGC §1602; or CCC pursuant to Public Resources Code § 3000 et seq. Prior to the on-site assessment, RBC reviewed the USGS National Hydrography Dataset (NHD; USGS 2022) and the USFWS National Wetland Inventory (NWI; USFWS 2022c) for locations of potentially jurisdictional aquatic features within the study area (Figure 3). NRCS soil maps were used to identify hydric soils within the study area. RBC also utilized Google Earth Pro and University of California, Santa Barbara (UCSB)'s Frame Finder to assess current and historic presence or absence of flows and/or ponding in the study area (Google Earth Pro 2022; UCSB n.d.) Data collected during the desktop review process was used to guide field efforts (i.e., potential aquatic resources discovered during the query searches were verified on site). While in the field, RBC walked the study area in its entirety and potential aquatic resources were recorded using a hand-held Global Positioning System (GPS) unit with a level of accuracy ranging from 12 to 15 feet. Areas with depressions, drainage patterns, wetland vegetation, or riparian vegetation within the study area were assessed for potential jurisdictional status, with focus on the presence of defined channels, soils, and hydrology. No formal jurisdictional delineation per state and federal guidelines was conducted as part of this effort.

4 SURVEY RESULTS

4.1 GENERAL PHYSICAL CHARACTERISTICS

The approximately 60.6-acre study area (project site plus 100-foot buffer) occurs within the City of Chula Vista, California. The study area is primarily composed of developed land with ornamental vegetation and disturbed habitat. The study area is not within or directly adjacent to lands designated as a Preserve under the City MSCP Subarea Plan, although a Preserve does occur 500 feet to the north. Additionally, there are no topographical depressions or basins with the project site that would support vernal wildlife and plant species. Site photos are provided as Appendix B.

4.2 BIOLOGICAL RESOURCES

4.2.1 VEGETATION

The study area is comprised of developed land primarily made of up industrial buildings and parking lots (Figure 2). Vegetation communities and land uses within the study area are discussed below. Note that 'Tiers' cited within each upland habitat/land use description are from Table 5-3 of the City MSCP Subarea Plan. These tiers represent the sensitivity of the habitat, with Tier I the highest sensitivity and Tier IV low/no sensitivity.

Developed (Tier IV, other uplands)

Within the study area, developed areas (56.7 acres) include industrial buildings, paved streets, and parking lots (Figure 2). Developed areas support little, to no native vegetation and are comprised of human-made structures such as buildings and roads.

Disturbed Habitat (Tier IV, other uplands)

Disturbed habitat within the study area (2.4 acres) exists in isolated patches along the periphery of the project site (Figure 2). Disturbed habitat is areas that have been previously disturbed by development or agricultural activities, or lands that only support ruderal (weedy) vegetation. Disturbed lands are generally cleared of vegetation such that little or no natural habitat remains and at least 50 percent of plant cover is broad-leaved non-native vegetation. Disturbed habitat on site consists of bare soil or gravel with sparse ruderal, non-native vegetation, as well as a small number of native broom baccharis (*Baccharis sarothroides*), mulefat (*B. salicifolia*), and deerweed (*Acmispon glaber* var. *glaber*).

Eucalyptus Woodland (Tier IV, other uplands)

Eucalyptus woodland habitat (1.1 acres) occurs along the eastern project buffer as well as within small, isolated patches in the southern portion of the project site (Figure 2) and is dominated by gum trees, which are not native and were planted and/or became naturalized in these areas. Blue gum (*Eucalyptus globulus*) and red river gum (*E. camaldulensis*) are the dominant species within the eucalyptus woodland habitat in the study area.

Ornamental (Tier IV, other uplands)

Ornamental vegetation (0.3 acre) occurs within the northern portion of the study area and is associated with adjacent commercial developments (Figure 2). Ornamental vegetation typically

consists of non-native landscape and/or garden species that are planted in association with buildings, roads, and developments or have escaped cultivation and occur within native habitats. Species in this vegetation community within the study area include American agave (*Agave americana*), Brazilian pepper tree (*Schinus terebinthifolius*), Mexican fan palm (*Washingtonia robusta*), bottlebrush (*Meleleuca* sp.), and olive (*Olea europaea*).

4.2.2 RARE, THREATENED, ENDANGERED, ENDEMIC, SENSITIVE AND/OR CITY MSCP SUBAREA PLAN-COVERED SPECIES

The City MSCP Subarea Plan covers 85 plant and wildlife species (86 if including the Quino checkerspot butterfly). The City MSCP Subarea Plan states that 19 sensitive plant and wildlife species are considered adequately protected within the Preserve lands, and the remaining 67 plant and wildlife species have Incidental Take Authorization within the City of Chula Vista.

Sensitive plants, animals, and habitats are defined here as rare, endangered, depleted, or declining according to the USFWS, CDFW, CNPS, and/or the City. General surveys were conducted for plant and animal species and habitats that are considered sensitive according to the USFWS, CNPS, and the CDFW's California Natural Diversity Database (CNDDB) record for the National City 7.5' quadrangle (Figures 3 and 4). Each special-status species was assessed for its potential to occur within the study area as shown in Table 1 and Appendices C and D.

4.2.2.1 Botany

Special-Status Plant Species Within the Study Area

Federally and/or state-listed, California Rare Plant Rank (CRPR), and/or City MSCP Subarea Plan-covered plant species were not observed within the study area during the general biological survey. A list of all plant species observed on site is included as Appendix E to this report.

City MSCP Subarea Plan Narrow Endemic Plant Species Potential for Occurrence

Narrow Endemic Species are those with a very restricted habitat that occur only in the San Diego County region, and specific protections apply to Narrow Endemic Species pursuant to the City MSCP Subarea Plan. Table 1 summarizes the potential Narrow Endemic Species (City 2003) to occur within or immediately adjacent to the project site. No Narrow Endemic Species have a moderate or high potential to occur on the project site due to the lack of suitable habitat. The project site is 99% developed with impervious surfaces that do not allow for native plant growth. The small areas of the project site comprised of disturbed habitat (0.2 acre) and planted eucalyptus (0.1 acre) are not suitable for endemic plant species because they have been historically graded and are isolated from any areas of natural habitat. Additionally, the project site is comprised solely of Huerhuero-Urban land complex soils and made lands (NCRS 2022; Figure 4) which are not considered to be hydric soils that would support endemic plant species associated with wetlands.

Table 1. Potential for City MSCP Subarea Plan Narrow Endemic Species to Occur

Species	Potential to Occur
Dehesa bear-grass (*Nolina interrata*)	None. Species occurs in gabbroic, metavolcanic, or serpentinite soils in chaparral which are not present on site. This perennial species would have been observed if present.
Dunn's mariposa lily (*Calochortus dunnii*)	None. Species occurs in gabbroic or metavolcanic, rocky soils in closed-cone coniferous forest, chaparral, and valley and foothill grasslands, which are not present on site.
Encinitas baccharis (*Baccharis vanessae*)	None. Species occurs in chaparral and cismontane woodlands which are not present on site. This perennial species would have been observed if present.
Felt-leaved monardella (*Monardella hypoleuca* ssp. *lanata*)	None. Species occurs in chaparral and cismontane woodland, which are not present on site.
Gander's pitcher sage (*Lepechinia ganderi*)	Low. Species occurs in gabbroic or metavolcanic soils in closed-cone coniferous forest, chaparral, coastal scrub, and valley and foothill grasslands, which are not present on site. This perennial species would have been observed if present.
Lakeside ceanothus (*Ceanothus cyaneus*)	None. Species occurs in closed-cone coniferous forest and chaparral, which are not present on site. This perennial shrub would have been observed if present.
Nevin's barberry (*Berberis nevinii*)	None. Species occurs in chaparral, cismontane woodland, coastal scrub, and riparian scrub, which are not present on site. This perennial shrub would have been observed if present.
Orcutt's brodiaea (*Brodiaea orcuttii*)	Low. Species occurs on mesic, clay soils within closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, and vernal pools, which are not present on site.
Otay tarplant (*Deinandra conjugens*)	Low. Species occurs on clay soils within coastal scrub, valley and foothill grassland, which are not present on site.
Palmer's ericameria (*Ericameria palmeri* ssp. *palmeri*)	None. Species occurs on mesic soils in chaparral and coastal scrub, which are not present on site. This perennial shrub would have been observed if present.
Salt marsh bird's-beak (*Chloropyron* [*Cordylanthus*] *maritimum* ssp. *maritimum*)	Low. Species occurs in coastal dunes, and coastal salt marshes and swamps, which are not present on site.
San Diego ambrosia (*Ambrosia pumila*)	None. Found in sandy loam or clay soils, often in disturbed areas, sometimes alkaline, chaparral, coastal scrub, valley and foothill grassland, vernal pools, which are not present on site. This perennial species would have been observed if present.
San Diego thorn-mint (*Acanthomintha ilicifolia*)	Low. Found in openings on clay soils within chaparral, coastal scrub, valley and foothill grasslands, and vernal pools, which are not present on site.

Species	Potential to Occur
Shaw's agave (*Agave shawii*)	None. Species found in maritime succulent scrub, coastal bluff scrub, and coastal scrub, which are not present on site. This perennial species would have been observed if present.
Short-leaved dudleya (*Dudleya blochmaniae* ssp. *brevifolia*)	None. Species occurs on rocky, often clay or serpentine soils within coastal bluff scrub, chaparral, coastal scrub, and valley and foothill grassland, which are not present on site.
Snake cholla (*Cylindropuntia californica var. californica*)	None. Species occurs in chaparral and coastal scrub, which are not present on site. This perennial species would have been observed if present.
Thread-leaved brodiaea (*Brodiaea filifolia*)	Low. Species occurs on clay soils within chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools, which are not present on site.
Variegated dudleya (*Dudleya variegata*)	Low. Species occurs on clay soils within chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools, which are not present on site.
Willowy monardella (*Monardella linoides* ssp. *viminea*)	None. Species occurs on alluvial ephemeral washes in chaparral, coastal scrub, riparian habitats, which are not present on site. This perennial species would have been observed if present.

Additional Special-Status Plant Species Potential for Occurrence

Additional special-status plant species potential for occurrence in the study area were compiled by querying the CNDDB (2022) and CNPS (2022) databases and assessing potential on-site habitat. The potential for special-status species occurrence within the study area is presented in Appendix C.

No additional federally and/or state-listed, CRPR-ranked, and/or City MSCP Subarea Plan-covered species have a moderate or high potential to occur on the project site due to the lack of suitable habitat. The project site is 99% developed with impervious surfaces that do not allow for native plant growth. The small areas of the project site comprised of disturbed habitat (0.2 acre) and planted eucalyptus (0.1 acre) are not suitable for special-status plant species because they have been historically graded and are isolated from any areas of natural habitat. Additionally, the project site is comprised solely of Huerhuero-Urban land complex soils and made lands (NCRS 2022; Figure 4) which are not considered to be hydric soils that would support sensitive vernal pool plant species associated with wetlands.

4.2.2.2 Zoology

Special-Status Wildlife Observed within the Study Area

One CDFW Watch List (WL) wildlife species, osprey (*Pandion haliaetus*), was observed nesting on the project site and one CDFW Fully Protected (FP) species, American peregrine falcon (*Falco peregrinus anatum*), was observed flying through the project site. These species are discussed below. A list of all wildlife species observed on site is included as Appendix F to this report.

Osprey

Osprey is considered a WL species by CDFW when nesting. Osprey exclusively nest near large bodies of water where fish, their primary prey, are available. Nests are made of sticks and placed on snags, dead-topped trees, cliffs, and manmade structures. Open-branched trees or other perches are required near the nest for perching and landing, and nests are generally within 400 meters of fish-producing water (Zeiner et al. 1988-1990).

During the early 1900s, osprey populations were negatively affected by habitat loss, hunting, and competition with fishermen. Osprey populations declined further in the mid-1900s due to the widespread use of the pesticide DDT, which caused eggshell thinning and thus failed nesting attempts. These declines led to the extirpation of the species from southern California. Osprey recolonized San Diego in 1997 and have since been increasing in numbers (Unitt 2004).

Osprey were observed nesting in the southwest corner of the project site, within Planning Area B-2, during the 2022 general biological survey. Two nests (one active and one inactive) were located atop abandoned lighting structures. Both adults were observed on site as well as three nestlings approximately four to six weeks old. The female utilized the inactive historic nest to the north of the active nest as a perch.

On-site osprey nests were removed on October 21, 2022, once fledglings were no longer dependent on the nests, in compliance with the MBTA and following consultation with CDFW. RBC documented that no direct impacts on osprey or other avian species occurred during removal of the two on-site inactive osprey nests and associated manmade structures. Based on the historic presence of nesting osprey and the continued presence of other similar manmade structures suitable for nesting, osprey have a moderate potential for occurrence on site.

American Peregrine Falcon

American peregrine falcon is considered a FP species by CDFW when nesting. American peregrine falcon breeds in a wide variety of habitats, including urban areas; the most common nesting locations in California are cliffs, tall buildings, and bridges. Peregrine falcons do not build nests like most other bird species. Eggs are laid within a “scrape” or shallow indentation on a cliff, building, or bridge (CDFW 2022b). On rare occasions, peregrine falcons will utilize historic nests of other bird species. They typically prey on small to medium birds such as ducks, doves, pigeons, shorebirds, and songbirds.

American peregrine falcon was once a species of great conservation concern. The number of known breeding pairs had dropped by 95% from the early 1900s to 1970 due to habitat loss and the widespread use of the pesticide DDT, which caused eggshell thinning and thus failed nesting attempts. The species was listed as endangered under the FESA in 1970 and the CESA in 1971 (CDFW 2022b). Due to the banning of DDT in 1972 and widespread recovery efforts, American peregrine falcon has recovered across its range and was delisted by USFWS in 1999 and CDFW in 2009.

During the general biological survey, one immature American peregrine falcon was observed flying through Planning Area B-1. As it was passing through, it dove between vacant industrial buildings

where rock pigeon, a common prey for peregrine falcon, had previously been observed. The observed individual did not appear to occupy the project site, and evidence of on-site nesting or long-term use was not documented.

Although American peregrine falcon was observed during the survey, the project site has low potential to support nesting American peregrine falcon. Abundant avian prey is available throughout the project site; however, suitability of nesting habitat available on the rooftops of vacant industrial buildings is low. Buildings on site are shorter than typical peregrine falcon nesting locations. Expanding populations of peregrine falcons in the U.S. have been utilizing shorter structures in recent years (Brauning et al. 2013) but it is still considered rare for a relatively low nest site to be selected.

Special-Status Wildlife Potential for Occurrence

Special-status wildlife species with potential to occur within the region were compiled by querying the CNDDB (CDFW 2022a) and database of threatened/endangered USFWS species (USFWS 2022a) for a three-mile radius surrounding the study area and using best professional judgment based on the presence/absence of suitable habitat for special-status species and professional experience (Figure 5 and Figure 6). Clayey soil (Huerhuero-Urban land complex, 2 to 9 percent slopes) comprises the western extent of the project site. No depressional areas or vernal pools suitable to support ponding or Anostraca species are present within the project site as all on-site areas of lower topography are associated with asphalt drainages. Appendix D identifies species potential for occurrence within or immediately adjacent to the project.

Two CDFW Species of Special Concern (SSC), pallid bat (*Antrozous pallidus*) and western mastiff bat (*Eumops perotis californicus*), have a moderate potential to occur on site. No other special-status and/or City MSCP Subarea Plan-covered wildlife species have a moderate or high potential to occur on site due to the lack of suitable habitat.

Pallid Bat

Pallid bat, a CDFW SSC, is found throughout much of California at low elevations. It inhabits open, dry habitats such as grasslands, shrublands, woodlands, and forests. Pallid bat is a nocturnal species that day roosts in caves, rock crevices, mines, and occasionally hollow trees and buildings. It forages in open areas about 1.6 to 8 feet above ground level and mainly captures prey on the ground (Zeiner et al. 1988-1990). Pallid bats consume a wide variety of insects and arachnids, including large, hard-shelled, flightless insects. They occasionally carry prey items back to the roost before consuming. They form maternity colonies in early April, which may have as many as 100 individuals (Zeiner et al. 1988-1990). Pallid bats do not migrate and will hibernate solitarily or in small groups during winter near their typically used day roost.

Pallid bats have undergone a major decline in coastal California (Texas Parks and Wildlife Department 2023a). Pallid bats are highly sensitive to disturbances of roosting sites, which are essential for maintaining normal metabolic function and juvenile growth (Zeiner et al. 1988-1990). Factors contributing to its decline include closure of mines, loss of roost trees to timber harvest, pest extermination in buildings, pesticide use, and destruction of roost sites (Texas Parks and Wildlife Department 2023a).

The vacant buildings on the project site have crevices and small rooms that could be utilized by pallid bats for roosting. The project site does not support highly suitable foraging habitat; however, disturbed lots to the north and south of the site are open and support prey species consumed by this species. As such, pallid bat has a moderate potential for occurrence on the project site.

Western Mastiff Bat

Western mastiff bat is a CDFW SSC that is found in open, semi-arid habitats such as woodlands, coastal scrub, grasslands, palm oases, chapparal, desert scrub, and urban land. This species requires crevices for roosting, generally in rocks, buildings, trees, and tunnels. It is known to share roosts with other species, including pallid bat. Western mastiff bats are non-migratory and active year-round. While they may experience a decline in daytime metabolic activity during winter months, they generally resume activity each night to forage (Zeiner et al. 1988-1990). Western mastiff bat is the largest species of native bat in the U.S. Its large wings enable rapid, sustained flight but limit maneuverability. They cannot take off from a flat surface and instead must free-fall to begin flight. Roosts need to be high enough to gain speed as they fall, generally greater than 9.8 feet in height (Texas Parks and Wildlife Department 2023b). This species forages in open habitats by catching insects in the air, generally from ground- to tree-level. They typically eat winged insects that are active at night, including moths, crickets, beetles, katydids, dragonflies, and grasshoppers.

Western mastiff bats are threatened by urban expansion, activities that destroy or disturb cliff habitats, recreational climbing, pest control activities on urban buildings, and pesticide applications on agricultural lands (Texas Parks and Wildlife Department 2023b). Loss of large open drinking water sites has also been attributed to this species' decline. This is a persistent threat in the southwest even on managed lands; for example, open ponds can often become too vegetated for western mastiff bat to access when cattle are removed from the land (Texas Parks and Wildlife Department 2023b).

The vacant buildings on the project site have high crevices that could be utilized by western mastiff bats for roosting. The project site does not support highly suitable foraging habitat; however, moderately suitable foraging habitat is present nearby on undeveloped lands north and south of the site. As such, western mastiff bat has a moderate potential for occurrence on the project site.

4.3 POTENTIAL FEDERAL AND STATE JURISDICTIONAL AQUATIC RESOURCES

RBC observed a paved road along the western project boundary with six in-ground stormwater collection grates. The paved areas near the grates slope slightly and may convey sheet flow during storm events; however, this paved road did not appear to be a potentially jurisdictional aquatic resource, based on the lack of ordinary high water mark (OHWM) indicators (i.e., water staining or other clear evidence of regular flows), a defined bed and bank, or hydrophytic vegetation. Several in-ground stormwater collection grates were also observed along the east side of the large industrial building in the western portion of the project site. This area also did not appear to contain a potentially jurisdictional aquatic resource, based on the lack of OHWM indicators or a defined bed and bank. According to historic aerials and the NHD and NWI databases, the grates are

employed as local stormwater management with no downstream connectivity in a region that has been developed since at least 1964 (UCSB n.d.).

Within the survey buffer, between Planning Area A and Planning Areas B-1 and B-2, an asphalt ditch running north-south was observed with associated culverts passing under roadways (Figure 2; Appendix B, Photos 4, 5, and 6). The ditch was dry during the field survey but appears to receive runoff from the adjacent parking lots. Based on the lack of hydrophytic vegetation in the bed of the asphalt ditch, this feature is not anticipated to meet the appropriate wetland parameters to qualify as wetland waters of the U.S./state per the Corps and the SWRCB/RWQCB or associated wetlands potentially jurisdictional by the CDFW. The asphalt ditch would also not qualify as non-wetland waters of the U.S. per the Corps as its location is not associated with historic, natural drainages or excavated tributaries based on the field assessment, a review of historical aerial imagery (Google Earth 2022 and UCSB n.d.), and the NHD and NWI databases (Figure 3). Specifically, the asphalt ditch appears to have been constructed in an otherwise upland area to manage stormwater and urban runoff associated with the surrounding development. According to the earliest available historical aerial, the region surrounding the asphalt ditch has been developed since at least 1964 (UCSB n.d.). Thus, based on the current pre-2015 definition of “waters of the U.S.,” which was further defined by the 2001 *Solid Waste Agency of Northern Cook County* (SWANCC) decision and the 2006 *Rapanos* decisions, the asphalt ditch should be considered a ditch “excavated wholly in and draining only uplands” that does “not carry a relatively permanent flow of water” (U.S. EPA 2008).

The asphalt ditch would also likely not qualify as a non-wetland water of the State by the SWRCB/RWQCB as the asphalt ditch is a maintained artificial structure, which functions as localized stormwater runoff conveyance with no downstream connectivity and which does not provide/has no impact on beneficial uses (e.g., agricultural supply, freshwater supply, or groundwater recharge). The asphalt ditch would also likely not qualify as a streambed jurisdictional per the CDFW, as the ditch lacks association with a natural feature or streambed and does not support wildlife habitat. This feature is confined to the project buffer and impacts are not proposed within this area.

No other areas with depressions (including vernal pools), drainage patterns, defined channels, and/or wetland vegetation were observed during the survey. Additionally, the project site is comprised solely of Huerhuero-Urban land complex soils and made lands (NCRS 2022; Figure 4) which are not considered to be hydric within San Diego County (NCRD n.d.). As such, the project site does not support areas that could be considered jurisdictional by the Corps, RWQCB, CCC, and CDFW based on the results of the constraints-level aquatic resources assessment. Please note, however, if the project requires an official determination from the agencies regarding presence or absence of jurisdictional aquatic resources on the project site, a formal aquatic resources delineation report may be required for agency concurrence.

5 MSCP CONSISTENCY ANALYSIS

The project lies within the Chula Vista MSCP Planning Area, but not within lands designated as preserved under the City MSCP Subarea Plan (Figure 1).

5.1 MSCP PRESERVED LANDS

The study area does not occur within lands designated as Preserve lands under the City MSCP Subarea Plan.

5.2 ADJACENCY MANAGEMENT ISSUES

The project is not within City MSCP Subarea Plan preserve lands, but a Preserve does occur approximately 500 feet north of the project site. Following are the relevant project requirements from the 'Adjacency Management Issues' discussion of Section 7.5 of the City MSCP Subarea Plan, along with an analysis of project compliance with each requirement. All new development under the City MSCP Subarea Plan must adhere to the following guidelines.

Drainage:

1. *All developed and paved areas must prevent the release of toxins, chemicals, petroleum products, exotic plant materials and other elements that might degrade or harm the natural environment or ecosystem processes within the Preserve. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. These systems should be maintained approximately once a year, or as often as needed, to ensure proper functioning. Maintenance should include dredging out sediments if needed, removing exotic plant materials, and adding chemical-neutralizing compounds (e.g., clay compounds) when necessary and appropriate.*
2. *Develop and implement urban runoff and drainage plans which will create the least impact practicable for all development adjacent to the Preserve. All development projects will be required to meet NPDES standards and incorporate BMP as defined by the City's Standard Urban Storm Mitigation Plan (SUSMP).*
3. *Pursuant to the San Diego Regional Water Quality Control Board Municipal Permit, and the City of Chula Vista Storm Water Management Standards Requirements Manual, which includes the SUSMP, all development and redevelopment located within or directly adjacent to or discharging directly to an environmentally sensitive area (as defined in the Municipal Permit and the Local SUSMP) are required to implement site design, source control, and treatment control BMPs. The BMPs shall, at a minimum include:*
    - *Control post-development peak storm water runoff discharge rates and velocities to maintain or reduce pre-development downstream erosion and to protect stream habitat;*
    - *Conserve natural areas where feasible;*
    - *Minimize storm water pollutants of concern in runoff;*
    - *Remove pollutants of concern from urban runoff;*

- *Minimize directly connected impervious areas where feasible;*
- *Protect slopes and channels from eroding;*
- *Include storm drain stenciling and signage;*
- *Include additional water quality provisions applicable to individual project categories;*
- *Ensure that post-development runoff does not contain pollutant loads which cause or contribute to an exceedance of water quality objectives or which have not been reduced to the maximum extent practicable; and,*
- *Implement BMPs close to pollutant sources.*

4. *Require all NPDES-regulated projects to implement a combination of BMPs as close to potential pollutant sources as feasible.*

All construction activities would be required to implement best management practices (BMPs) including, but not limited to, the use of silt fencing or fiber rolls around active work areas.

Toxic Substances:

All agricultural uses, including animal-keeping activities, and recreational uses that use chemicals or general by-products such as manure, potentially toxic or impactive to wildlife, sensitive species, habitat, or water quality need to incorporate methods on their site to reduce impacts caused by the application and/or drainage of such materials into the Preserve. Methods shall be consistent with requirements of the RWQCB and NPDES standards.

The project does not propose the use or release of toxic substances that could harm biological resources. Further, the project shall implement BMPs to ensure no project materials are discharged from the project site.

Lighting:

Lighting of all developed areas adjacent to the Preserve should be directed away from the Preserve wherever feasible and consistent with public safety. Where necessary, development should provide adequate shielding with non-invasive plant materials (preferably native), berming, and/or other methods to protect the Preserve and sensitive species from night lighting. Consideration should be given to the use of low-pressure sodium lighting.

Construction activities should be conducted during daylight hours to avoid the need for light shielding. Should lighting be required on site, the project shall implement BMPs to protect Preserve lands and sensitive species from night lighting.

Noise:

Uses in or adjacent to the Preserve should be designed to minimize noise impacts. Berms or walls should be constructed adjacent to commercial areas and any other use that may introduce noises that could impact or interfere with wildlife utilization of the Preserve. Excessively noisy uses or activities adjacent to breeding areas, including temporary grading activities, must incorporate noise reduction measures or be curtailed during the breeding season of sensitive bird species, consistent with Table 3-5 of the MSCP Subregional Plan.

Where noise associated with clearing, grading or grubbing will negatively impact an occupied nest for the least Bell's vireo during the breeding season (March 15 to September 15), noise levels should not exceed 60 LEQ. However, on a case-by-case basis, if warranted, a more restrictive standard may be used. If an occupied least Bell's vireo nest is identified in a pre-construction survey, noise reduction techniques, such as temporary noise walls or berms, shall be incorporated into the construction plans to reduce noise levels below 60 LEQ.

Where noise associated with clearing, grubbing or grading will negatively impact, an occupied nest for raptors between January 15 and July 31 or the coastal California gnatcatcher between February 15 and August 15 (during the breeding season), clearing, grubbing or grading activities will be modified, if necessary, to prevent noise from negatively impacting the breeding success of the pair. If an occupied raptor or coastal California gnatcatcher nest is identified in a pre-construction survey, noise reduction techniques shall be incorporated into the construction plans.

Outside the bird breeding season(s) no restrictions shall be placed on temporary construction noise.

The project site is not occupied by the coastal California gnatcatcher or the least Bell's vireo. Raptors, such as osprey, are known to use the project site and the potential for other nesting raptors is moderate, due to the presence of ornamental trees and manmade structures suitable for nesting. If demolition or ground disturbing activities are initiated during the raptor breeding season (generally January 15 to July 31), a survey will be required to identify any potential noise impacts on nesting raptors. If necessary, noise reduction techniques will be implemented.

Invasives:

No invasive non-native plant species shall be introduced into areas immediately adjacent to the Preserve. All open space slopes immediately adjacent to the Preserve should be planted with native species that reflect the adjacent native habitat. The plant list contained in the "Wildland / Urban Interface: Fuel Modification Standards," Appendix L, must be reviewed and utilized to the maximum extent practicable when developing landscaping plans in areas adjacent to the Preserve.

No invasive plant species shall be used in project ornamental landscaping.

Buffers:

There shall be no requirements for buffers outside the Preserve, except as may be required for Wetlands pursuant to Federal and/or State permits, or by local agency CEQA mitigation conditions. All open space requirements for the Preserve shall be incorporated into the Preserve. Fuel modification zones must be consistent with Section 7.4.4 of this Subarea Plan.

Project work will not occur within or immediately adjacent to any Preserve lands. As such, no buffers are proposed.

6 IMPACTS

Direct impacts refer to any alteration, disturbance, or destruction of biological resources caused by and occurring at the same time and place as the project. Examples include direct losses to native habitats, potential jurisdictional waters, wetlands, and special-status species; the crushing of adult plants, bulbs, or seeds; the diversion of natural surface water flows; injury, death, and/or harassment of listed and/or special-status species; and the destruction of habitats necessary for species breeding, feeding, or sheltering.

Indirect impacts may occur later in time or at a place that is farther removed in distance from the project than direct impacts, but indirect impacts are still reasonably foreseeable and attributable to project-related activities. Examples include habitat fragmentation; elevated noise, dust, and lighting levels; changes in hydrology, runoff, and sedimentation; decreased water quality; soil compaction; increased human activity; and the introduction of invasive wildlife (domestic cats and dogs) and plants.

Cumulative impacts are the direct and indirect impacts of a proposed project which, when considered alone, would not be deemed substantial, but when considered in addition to the impacts of related projects in the area, would be considered potentially significant. ‘Related projects’ refers to past, present, and reasonably foreseeable future projects which would have similar impacts on the proposed project.

CEQA Guidelines Form J thresholds of significance have been used to determine whether project implementation would result in a significant direct, indirect, and/or cumulative impact. These thresholds are based on Appendix G of the CEQA Guidelines (CCR Title 14, Division 6, Chapter 3, Sections 15000–15387). A significant biological resources impact would occur if the project would:

- Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS;
- Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations or by CDFW or USFWS;
- Have a substantial adverse effect on federal protected wetlands (including, but not limited to, marshes, vernal pools, coastal, etc.) through direct removal, filling, hydrological interruption, or other means;
- Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites;
- Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy, or ordinance;
- Conflict with the provisions of an adopted Habitat Conservation Plan; Natural Community Conservation Plan; or other approved local, regional, or state habitat conservation plan.

6.1 BIOLOGICAL IMPACTS

6.1.1 VEGETATION COMMUNITIES/LAND USES

The project will impact all areas within project boundary as shown on Figure 7. The project will occur on approximately 44.8 acres of land and associated vegetation communities. Of the total acreage, 44.5 acres are developed, 0.2 acre is disturbed habitat, and 0.1 acre is eucalyptus woodland (Tables 2 and 3).

Table 2. Project Impacts on Upland Vegetation Communities/Land Uses

Habitat Type (Tier)	Project Impacts (acres)	
	Within Preserved Lands	Outside Preserved Lands
Developed (Tier IV)	0.00	44.5
Disturbed Habitat (Tier IV)	0.00	0.2
Eucalyptus Woodland (Tier IV)	0.00	0.1
TOTAL (acres)	0.00	44.8

Table 3. Mitigation Requirements for Project Impacts on HLIT Upland Habitats

Habitat Type (Tier)	Impacts (Outside Preserve; acres)	Required Mitigation Ratio	HLIT Mitigation Required (acres)
Developed (Tier IV)	44.5	No Mitigation Required	0.00
Disturbed Habitat (Tier IV)	0.2	No Mitigation Required	0.00
Eucalyptus Woodland (Tier IV)	0.1	No Mitigation Required	0.00
TOTAL (acres)	44.8		0.00

** Upland mitigation ratios based on Table 5-3 of the City MSCP Subarea Plan (2003) and assumes mitigation credits will be purchased at the City's mitigation banks located within Preserves, i.e., all mitigation will occur within Preserves.*

Pursuant to the City MSCP Subarea Plan (City 2003), impacts on Habitat Loss and Incidental Take (HLIT) Ordinance Tier I-III upland habitats require mitigation; however, Tier IV habitats are not considered significant and do not require mitigation. Because no impacts on Tier I-III habitats would occur with project implementation, no significant impacts on vegetation communities/land uses would occur and no mitigation is required.

6.1.2 POTENTIALLY JURISDICTIONAL AQUATIC RESOURCES

Based on the constraints-level aquatic resources assessment, the project will not impact jurisdictional aquatic resources, riparian areas or vernal pools as such features do not occur on site. Should the proposed impact area expand to include the asphalt ditch between Planning Area

A and Planning Areas B-1 and B-2, a formal, project-specific aquatic resources delineation and reporting may be required to determine the jurisdictional status of that feature.

6.1.3 SPECIAL-STATUS SPECIES

6.1.3.1 Special-Status Plant Species

Special-status plant species were not documented within the study area and do not have a moderate or high potential to occur. The project would not impact special-status plant species covered under federal, state, or local laws. As such, impacts on special-status plants would be less than significant.

6.1.3.2 Special-Status Wildlife Species

Two special-status wildlife species, American peregrine falcon and osprey, were documented in the study area. No additional special-status wildlife species were documented within the study area or have a moderate or high potential to occur.

As summarized above in Section 4.3.2.2, American peregrine falcon was observed briefly passing through the project site and no evidence of long-term use or nesting was observed. This species has a low potential to nest on site. Direct impacts on this species would be avoided through nesting bird protection measures outlined in Section 7. As such, potential impacts on American peregrine falcon would be less than significant.

Two osprey nests, one historic and one active in spring 2022, were observed on light poles within a developed parking lot on the project site. Demolition of all development within that portion of the project site, including the light poles, is proposed. Osprey nests on the project site had been used for at least two consecutive years (2021 and 2022; Center for Conservation Biology 2022) and were also recorded as an active nest site in 2006 (Dudek 2010). Ospreys tend to exhibit strong site fidelity and nest re-use, including by individuals other than the original nest builders. In expanding populations, nest re-use rates are as high as 95% (Bierregaard et al. 2020). Therefore, indirect impacts on this species resulting from the removal of the two historic nests on site were considered.

A field survey conducted by RBC biologists on June 8, 2022, found five other active osprey nests within 1.5 miles of the project site. In addition, two inactive historic osprey nests and at least ten other structures that appear to be suitable for osprey nesting were located within 1.5 miles of the project site. Due to the presence of other unoccupied nesting habitat in the local area, removal of the on-site nests outside of breeding season would not likely result in a substantial adverse effect to the local population.

Direct impacts on osprey would be avoided through nesting bird protection measures outlined in Section 7. As such, potential impacts on this species would be less than significant. Further discussion of issues pertaining to on-site osprey nests is provided in Section 7.

While not observed, pallid bat and western mastiff bat have a moderate potential to occur on the project site. The on-site vacant buildings may support suitable roosting habitat for both species. Potential direct mortality of these species, if present, could occur during building demolition. However, pallid bats are now considered rare along the San Diego coast and a lone male pallid bat

was last documented within an urban canyon approximately half of a mile north of the project site in 2015 (Tremor et al. 2017). The nearest record of western mastiff bat is approximately three miles from the project site (CDFW 2022a). Additionally, the area is not known to support roosting colonies of special-status bats; thus, removal of the buildings would not substantially contribute to the overall decline of the species. As specified in the recommended permit conditions below, pre-construction surveys would be conducted for these species within the project site. If special-status bats are observed during pre-construction surveys, biological monitoring to facilitate avoidance and minimization of impacts would be required. Therefore, with the implementation of the permit conditions as outlined in Section 7, impacts to pallid bat and western mastiff bat would be reduced to a level below significant.

Direct impacts on other special-status wildlife, if present, would generally be avoided through nesting bird protection measures outlined in Section 7. Additionally, the project shall comply with the City MSCP Subarea Plan, a regional conservation program intended to conserve adequate native habitats regionally such that special-status species are also protected. As such, impacts on these species would be less than significant.

6.1.3.3 Wildlife Corridors

The project site is not identified as a City MSCP Subarea Plan regional wildlife corridor. The project site has already developed and fenced, with no immediately adjacent native habitats. The project does not propose any new barriers such as new fencing or development that would preclude wildlife movement. As such, no impacts on wildlife corridors would occur with project implementation.

6.1.4 BIOLOGY GUIDELINES REQUIREMENTS FOR DEVELOPMENT

Take outside of the Preserve within Covered Project areas will be subject to the project entitlements for Covered Projects, and project-specific conditions for coverage established by the City MSCP Subarea Plan. Take outside the Preserve in all other areas of the City will be subject to the City's HLIT Ordinance described in Section 5.2.2 of the City MSCP Subarea Plan. No take of covered species is expected to occur with project activities; however, all projects within the City must comply with MSCP requirements.

6.1.5 NESTING BIRD IMPACTS

The study area has the potential to support nests that would be protected under the MBTA and/or the CFGC (§3503) under which it is unlawful to "take, possess, or needlessly destroy" avian nests or eggs. Thus, potential impacts could occur if vegetation clearing and/or structure removal and demolition is undertaken during the breeding season. The project will include standard nest protection measures, as outlined in Section 7, below. Removal of habitat that has the potential to support active nests would occur outside of the breeding season (January 15 to July 31 for raptors and February 15 to August 31 for all other avian species) or would be surveyed by a qualified biologist prior to construction initiation. If active nests are found, the project clearing in that area plus an appropriate buffer (determined by the qualified biologist in consultation with the City) would

be delayed until nestlings have fledged. Please refer to Section 7 for full nest protection requirements.

6.2 INDIRECT IMPACTS

The project would entail earthwork and construction activities with the potential to generate dust and noise. Ground disturbance during construction also has the potential to result in accelerated erosion. However, the project will incorporate measures to address and reduce these types of impacts.

To comply with Section 7.5 of the City MSCP Subarea Plan, project contractors will be required to implement standard dust control measures to prevent the release of elements that might degrade or harm the Preserve. With these in place and given the temporary nature of dust-generating activities, construction dust is not expected to result in significant impacts on biological resources.

Per Section 7.5 of the City MSCP Subarea Plan, contractors will also be required to implement reasonable and feasible noise control measures. Depending on construction timing, pre-construction surveys for protected species, including nesting birds, will also be implemented (see Section 7, below).

Per the City Municipal Code, the project must comply with the City's Standard Urban Storm Water Mitigation Plan (SUSMP) to avoid impacts from runoff and control erosion during and following construction. With the SUSMP measures in place, significant impacts associated with accelerated erosion of disturbed ground are not expected.

6.3 CUMULATIVE IMPACTS

Cumulative impacts include both the potential regional (long-term, additive) effects of a project and the ways a project, in combination with other projects and conditions in a region, may affect an ecosystem or one of its components beyond the project limits and on a regional scale. The City MSCP Subarea Plan is part of the County of San Diego MSCP, a regional effort to offset significant cumulative biological impacts, and all development that is permitted through the City must comply with the MSCP. Because of this regional biological planning, cumulative biological impacts on most species in the region are not significant when developments are pursued in compliance with the plan. Because project avoidance and minimization measures will be pursued in a manner consistent with the City MSCP Subarea Plan (see PC-4), there would be no cumulatively significant biological impacts.

7 AVOIDANCE, MINIMIZATION, REGULATORY COMPLIANCE, AND MONITORING

The following regulatory compliance is required for conformance with state and federal biological regulations.

7.1 NESTING RAPTORS

The project site supports suitable habitat for nesting raptors. As such, the following permit condition is recommended to reduce impacts on nesting raptors:

> PC-1A: Vegetation clearing, structure removal, and ground disturbing activities should be conducted outside of the raptor nesting season (January 15 to July 31; City 2003). If these activities occur during the raptor nesting season, a qualified biologist will conduct a nesting raptor survey within three (3) days prior to any disturbance of the project site, including tree and shrub removal, disking, demolition activities, and grading. If active raptor nests are identified, the biologist shall establish suitable buffers around the nests depending on the level of activity within the buffer and species observed, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests. Raptor species will generally have an avoidance buffer of 500 feet; however, these buffers may be reduced in consultation with the CDFW. In addition, noise reduction measures consistent with the City MSCP Subarea Plan, as provided in Section 5.2, will be implemented if deemed necessary. If active nests are not identified, vegetation clearing and ground disturbing activities may commence. If ground disturbing activities are scheduled outside of the raptor nesting season, a nesting raptor survey will not be required.

7.1.1 OSPREY

As described above, two historic osprey nests were present on the project site. To reduce potential indirect impacts on nesting osprey, nest platforms were considered; however, this approach was rejected due to concerns over potential negative impacts on listed species. The project site is within proximity to the F&G Street Marsh, part of the Sweetwater Marsh National Wildlife Refuge and a City MSCP Subarea Plan Preserve, which has suitable nesting habitat for California least tern (*Sternula antillarum browni*; Federally Endangered [FE], State Endangered [SE]), light-footed Ridgway's rail (*Rallus obsoletus levipes*; FE, SE), and Belding's savannah sparrow (*Passerculus sandwichensis beldingi*; SE). Nest platforms placed on the project site could be taken over by another raptor species that prey upon listed avian species at the F&G Street Marsh. In addition, the Gaylord Chula Vista Resort & Convention Center Project is planned on the property immediately west of the project site, which may render the project site unsuitable for nesting given that osprey strongly prefer locations with direct line-of-sight to their fishing grounds and a commanding view of the surrounding area.

In addition to PC-1A, above, the following permit condition is recommended to reduce impacts on nesting osprey:

> PC-1B: Removal of on-site historic nesting structures shall be conducted outside of raptor nesting season (January 15 to July 31; City 2003). A qualified biologist will be present during nest removal to ensure there are no direct impacts on osprey who may use the structures as perches during non-breeding season.

Please note that removal of the two inactive, historic osprey nests and associated manmade structures was completed in October 2022 in accordance with the recommended permit condition. Should the project be delayed and osprey re-nests on site, nest removal may occur during the non-breeding season under the same conditions.

7.2 SPECIAL-STATUS BATS

The project site supports suitable roosting habitat for two special-status bat species, pallid bat and western mastiff bat. As such, the following permit condition is recommended to reduce impacts on special-status bats:

> PC-2A: Pre-construction surveys for special-status bat species shall be conducted by a qualified biologist prior to demolition of buildings and other structures potentially used for roosting. Pre-construction surveys shall take place no more that 14 days prior to the start of demolition activities. If active roosts are identified, a biological monitor shall be employed to direct avoidance measures (PC-2B). Following completion of the survey, a report will be submitted to the applicant that documents the findings.

Should special-status bats, namely pallid bat and western mastiff bat, be detected during pre-construction surveys, the applicant shall employ a qualified biologist to monitor all demolition activities in areas where roosting was observed or suspected, in accordance with the following permit condition:

> PC-2B: If special-status bat species are detected during pre-construction surveys, biological monitoring shall be conducted by a qualified biologist to ensure that project activities do not result in direct take. The biologist shall be present for all demolition activities in areas known or suspected to support roosting bats. The biological monitor shall perform clearance surveys at the start of each workday in areas scheduled for immediate demolition. The monitor will direct project activities away from special-status bat species, should they be found on site, to ensure that impacts on these species are avoided to the fullest extent possible. If present, bats are expected to flush from the project site at the onset of demolition activities. However, if they persist on site through demolition of non-roost site areas, consultation with the CDFW may be required.

7.3 NESTING BIRDS

The project site supports suitable habitat for nesting birds. As such, the following permit condition is recommended to reduce impacts on nesting birds:

PC-3: Vegetation clearing, structure removal, and ground disturbing activities should be conducted outside of the nesting season (generally February 15 to August 31). If these activities occur during the nesting season, a qualified biologist will conduct a nesting bird survey within three (3) days prior to any disturbance of the project site, including tree and shrub removal, disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests depending on the level of activity within the buffer and species observed, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests. Bird species other than raptors will have an avoidance buffer of 300 feet. These buffers may be reduced in consultation with the CDFW. If active nests are not identified, vegetation clearing and ground disturbing activities may commence. If ground disturbing activities are scheduled outside of the nesting season, a nesting bird survey may not be required.

7.4 CITY MSCP SUBAREA PLAN CONSISTENCY AND ADJACENCY ISSUES

As described above in Section 5.2, the project site is located approximately 500 feet from a Preserve. As such, the following permit condition is required to reduce potential impacts on adjacent preserved habitat:

PC-4: The project must comply with the guidelines set forth in the ‘Adjacency Management Issues’ discussion of Section 7.5 of the City MSCP Subarea Plan, which requires implementation of best management practices to ensure that adjacency issues do not arise due to project activities. These practices include, but are not limited to, the use of silt fencing or fiber rolls around work areas, restriction of construction activities to daylight hours, and use of non-invasive plant species in ornamental landscaping. In addition, the project will comply with the City’s SUSMP which requires measures to control erosion during and following construction, as noted above in Section 6.2.

8 CONCLUSION

As outlined above, with the implementation of PC-1A, PC-1B, PC-2A, PC-2B, PC-3, and PC-4, the project will not result in significant impacts on biological resources. The project site is primarily developed and disturbed habitat. The potential for most special-status plant and animal species is low due to the developed and disturbed nature of the project site. Suitable avian nesting habitat is present on site. A pre-construction clearance survey for nesting birds, including nesting raptors, should be conducted to ensure there are no impacts on nesting birds (see PC-1A and PC-3). Proper removal of historic osprey nests will ensure there are no direct impacts on osprey (see PC-1B). The project site supports suitable roosting habitat for two special-status bat species and pre-construction surveys will be conducted to ensure that no direct impacts on special-status bats occur as a result of the project (PC-2A). If present, roost sites shall be monitored by a qualified biologist during demolition activities to guide take avoidance measures (PC-2B). The project will implement best management practices to ensure that nearby Preserve lands are not impacted by construction activities (PC-4).

The project, as currently proposed, does not appear to support areas that could be considered jurisdictional by the Corps, RWQCB, CCC, and CDFW. If the project requires an official determination from the agencies regarding presence or absence of jurisdictional aquatic resources on the project site, a formal aquatic resources delineation report may be required for agency concurrence.

9 REFERENCES

Baldwin, B.G., Goldman, D.H., Keil, D.J., Patterson, R., Rosatti, T.J. (eds). 2012. The Jepson Manual: Vascular Plants of California, Second Edition, Thoroughly Revised and Expanded. University of California Press, Berkeley, California. 1400 pp.

Bierregaard, R. O., A. F. Poole, M. S. Martell, P. Pyle, and M. A. Patten. 2020. Osprey (*Pandion haliaetus*), version 1.0. In Birds of the World (P. G. Rodewald, Editor). Cornell Lab of Ornithology, Ithaca, NY, USA. https://doi.org/10.2173/bow.osprey.01.

Brauning, D. W., P. Barber, and F. A. McMorris. 2013. Management and Biology of the Peregrine Falcon (*Falco peregrinus*) in Pennsylvania, Ten Year Plan (2013 – 2022). Bureau of Wildlife Management, Pennsylvania Game Commission. Harrisburg, PA.

[CDFW] California Department of Fish and Wildlife. 2016. Complete List of Amphibian, Reptile, Bird and Mammal Species in California. California Wildlife Habitat Relationships Program, Sacramento.

2022a. California Department of Fish and Wildlife California Natural Diversity Database – Electronic Format.

2022b. American Peregrine Falcons in California. Website https://wildlife.ca.gov/Conservation/Birds/Peregrine-Falcon [accessed 24 May 2022].

[CFGC] California Fish and Game Commission. 1994. *Fish and Game Commission Comment to the Department of Fish and Game on the Wetland Policy Implementation Proposal.*

[CNPS] California Native Plant Society, Rare Plant Program. 2022. Inventory of Rare and Endangered Plants of California. Website http://www.rareplants.cnps.org [accessed 6 May 2022].

California State Water Resources Control Board (SWRCB). 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. Accessed on April 16, 2020. https://www.waterboards.ca.gov/water_issues/programs/cwa401/docs/procedures_conformed.pdf.

Center for Conservation Biology. *OspreyWatch*. http://www.osprey-watch.org. Accessed on May 20, 2022.

[City] City of Chula Vista. 2003. City of Chula Vista MSCP Subarea Plan. February.

Dudek. 2010. Final Environmental Impact Report for the Chula Vista Bayfront Master Plan. Prepared for San Diego Unified Port District.

Environmental Laboratory. 1987. *Corps of Engineers Wetlands Delineation Manual.* Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi. 100 pp. with Appendices.

Google Earth Pro V 7.3.6.9345. 2022. Chula Vista, California. 32°37’48.96” N 117°05’53.24” W. Eye alt 2,179 feet. Accessed January 25, 2023.

Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. State of California, The Resources Agency.

Jepson Flora Project (eds.) 2019. Jepson eFlora. http://ucjeps.berkeley.edu/eflora.

Lichvar, R. W., D. L. Banks, W. N. Kirchner, and N. C. Melvin. 2016. *Arid West 2016 Regional Wetland Plant List. The National Wetland Plant List: 2016 wetland ratings.* April.

Munsell Color. 2015. *Munsell Soil-Color Charts with Genuine Munsell Color Chips, 2009 Year Revised.* Grand Rapids, MI.

[NRCS] Natural Resources Conservation Service. No date (n.d.). State Soil Data Access (SDA) Hydric Soils List. U.S. Department of Agriculture. Retrieved January 29, 2023, from https://www.nrcs.usda.gov/publications/query-by-state.html.

2018. *Field Indicators of Hydric Soils in the United States, A Guide for Identifying and Delineating Hydric Soils, Version 8.2.*

2022. Official Soil Series Descriptions (Online). San Diego County, California, San Diego Area. U.S. Department of Agriculture. Version 11, Sep 16, 2019. Accessed on June 1, 2022. https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx.

Oberbauer, T., M. Kelly, and J. Buegge. 2008. Draft Vegetation Communities of San Diego County. Based on “Preliminary Descriptions of the Terrestrial Natural Communities of California”, Robert F. Holland, Ph.D., October 1986.

[RBC] Rocks Biological Consulting. 2020. Collins Aerospace Parking Lot Project Biological Resources Report. San Diego County, California. July 17, 2020.

Simpson, M.G. and J.P. Rebman. 2006. Checklist of the Vascular Plants of San Diego County, 4th Edition. 100 pp.

Texas Parks and Wildlife Department. 2023a. Pallid Bat (*Anthrozous pallidus*). Retrieved on January 30, 2023, from https://tpwd.texas.gov/huntwild/wild/species/pallid/.

2023b. Western Mastiff Bat (*Eumops perotis*). Retrieved on January 30, 2023, from https://tpwd.texas.gov/huntwild/wild/species/westmastiff/.

Tremor, S., D. Stokes, W. Spencer, J. Diffendorfer, H. Thomas, S. Chivers, and P. Unitt. San Diego County Mammal Atlas. San Diego, California. 432 pp.

Unitt, P. 2004. San Diego County Bird Atlas. San Diego Natural History Museum. 645 pp.

[Corps] U.S. Army Corps of Engineers. 2008a. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0).* J.S. Wakely, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

2008b. *A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States, A Delineation Manual.* R.W. Lichvar, and S.M. McColley. ERDC/CRREL TR-08-12. Hanover, NH: U.S. Army Engineer Research and Development Center.

2010. *Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States*. K.E. Curtis and R.W. Lichvar. EDRC/CRREL TN-10-1. Hanover, NH: U.S. Army Engineer Research and Development Center.

University of California, Santa Barbara (UCSB). No date (n.d.). *Frame finder.* UCSB library. Accessed January 25, 2023. https://mil.library.ucsb.edu/ap_indexes/FrameFinder/

[U.S. EPA] U.S. Environmental Protection Agency. 2008. *Clean Water Act Jurisdiction Following the Supreme Court's Decision in Rapanos v. United States and Carabell v. United States*. December 2

[USFWS] U.S. Fish and Wildlife Service. 1979. Classification of Wetlands and Deepwater Habitats of the United States. December.

2022a. Threatened and Endangered Species Database.

2022b. IPaC: Information for Planning and Consultation, Powered by ECOS – the Environmental Conservation Online System. Website https://ecos.fws.gov/ipac/ (accessed May 6, 2022).

2022c. National Wetlands Inventory. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. http://www.fws.gov/wetlands.

[USGS] U.S. Geological Survey. 2022. The National Map, Advanced Viewer. U.S. Department of Interior. https://viewer.nationalmap.gov/advanced-viewer.

Zeiner, D.C., W.F. Laudenslayer, Jr., K.E. Mayer, and M. White, eds. 1988-1990. California's Wildlife. Vol. I-III. California Depart. of Fish and Game, Sacramento, California.

FIGURE 1

Location

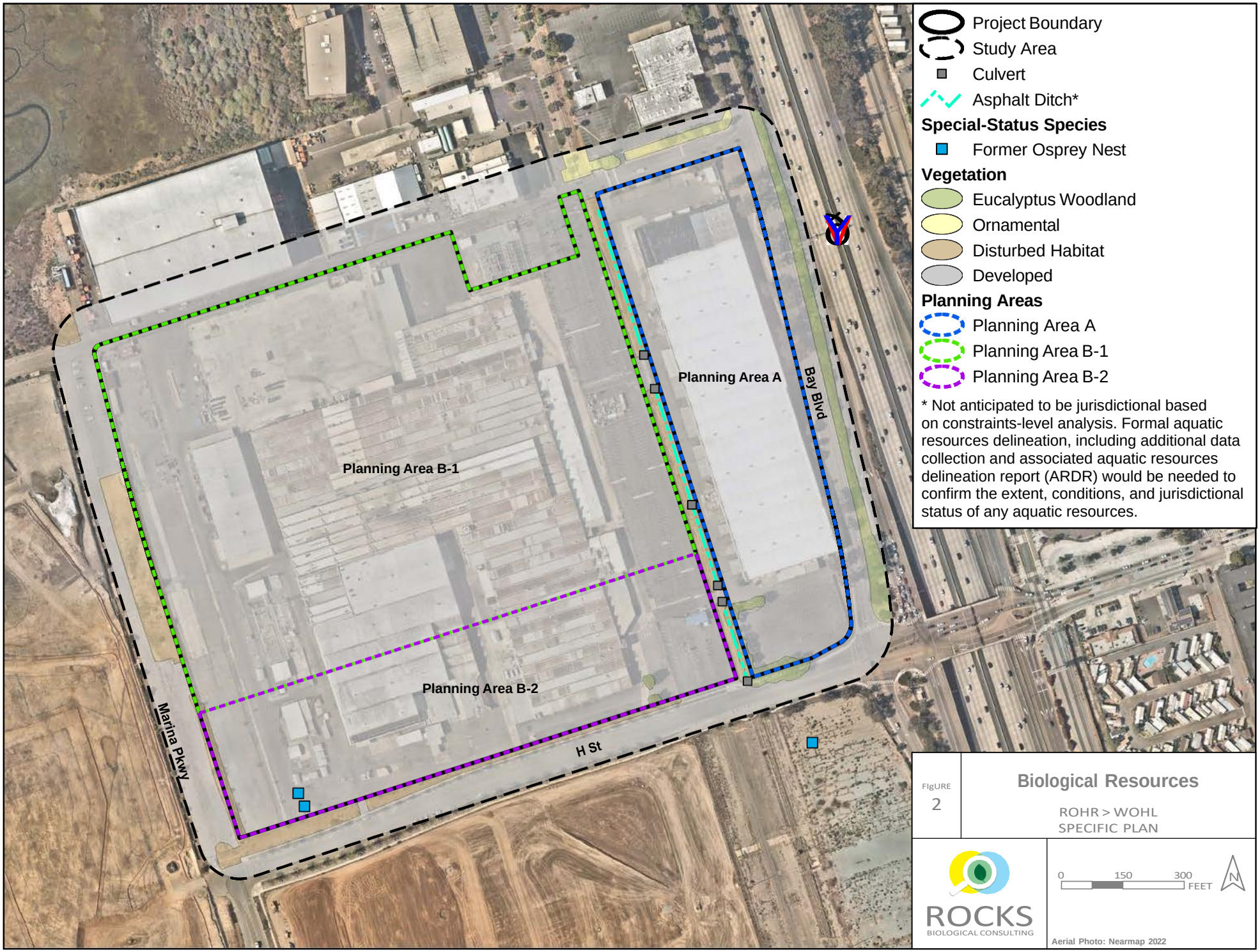
ROHR > WOHL SPECIFIC PLAN

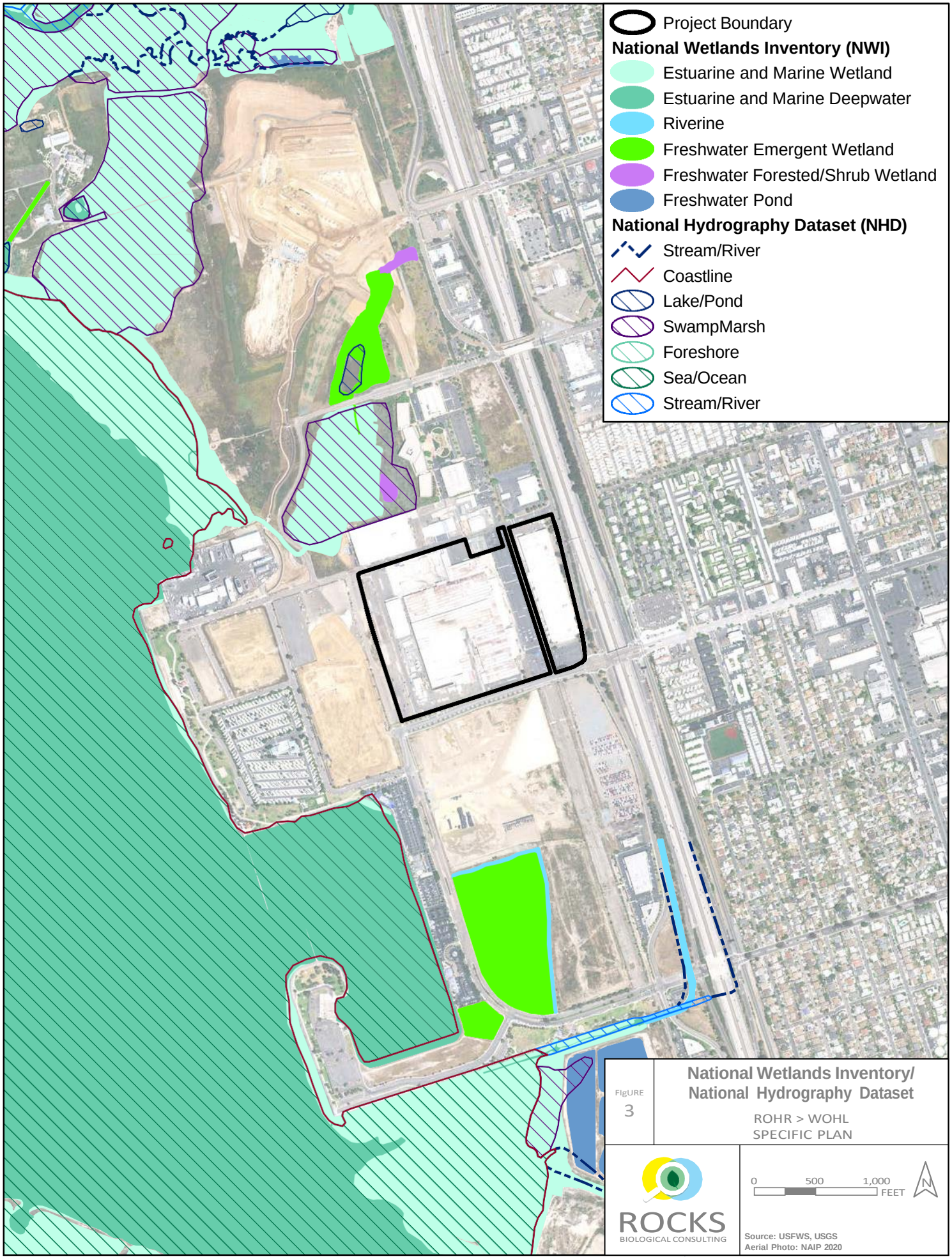
ROCKS BIOLOGICAL CONSULTING

0 1,000 2,000 FEET

N

Aerial Photo: USDA NAIP 2020
Regional Map: National Geographic, Esri 2012
Source: Chula Vista MSCP, SanGIS


Project Boundary
Study Area
Culvert
Asphalt Ditch*
Special-Status Species
Former Osprey Nest
Vegetation
Eucalyptus Woodland
Ornamental
Disturbed Habitat
Developed
Planning Areas
Planning Area A
Planning Area B-1
Planning Area B-2
* Not anticipated to be jurisdictional based on constraints-level analysis. Formal aquatic resources delineation, including additional data collection and associated aquatic resources delineation report (ARDR) would be needed to confirm the extent, conditions, and jurisdictional status of any aquatic resources.
Planning Area A
Planning Area B-1
Planning Area B-2
Bay Blvd
Marina Pkwy
H St
FIGURE
2
Biological Resources
ROHR > WOHL
SPECIFIC PLAN
ROCKS
BIOLOGICAL CONSULTING
0
150
300
FEET
N
Aerial Photo: Nearmap 2022


Project Boundary
National Wetlands Inventory (NWI)
Estuarine and Marine Wetland
Estuarine and Marine Deepwater
Riverine
Freshwater Emergent Wetland
Freshwater Forested/Shrub Wetland
Freshwater Pond
National Hydrography Dataset (NHD)
Stream/River
Coastline
Lake/Pond
SwampMarsh
Foreshore
Sea/Ocean
Stream/River
FIGURE
3
National Wetlands Inventory/
National Hydrography Dataset
ROHR > WOHL
SPECIFIC PLAN
ROCKS
BIOLOGICAL CONSULTING
0
500
1,000
FEET
N
Source: USFWS, USGS
Aerial Photo: NAIP 2020

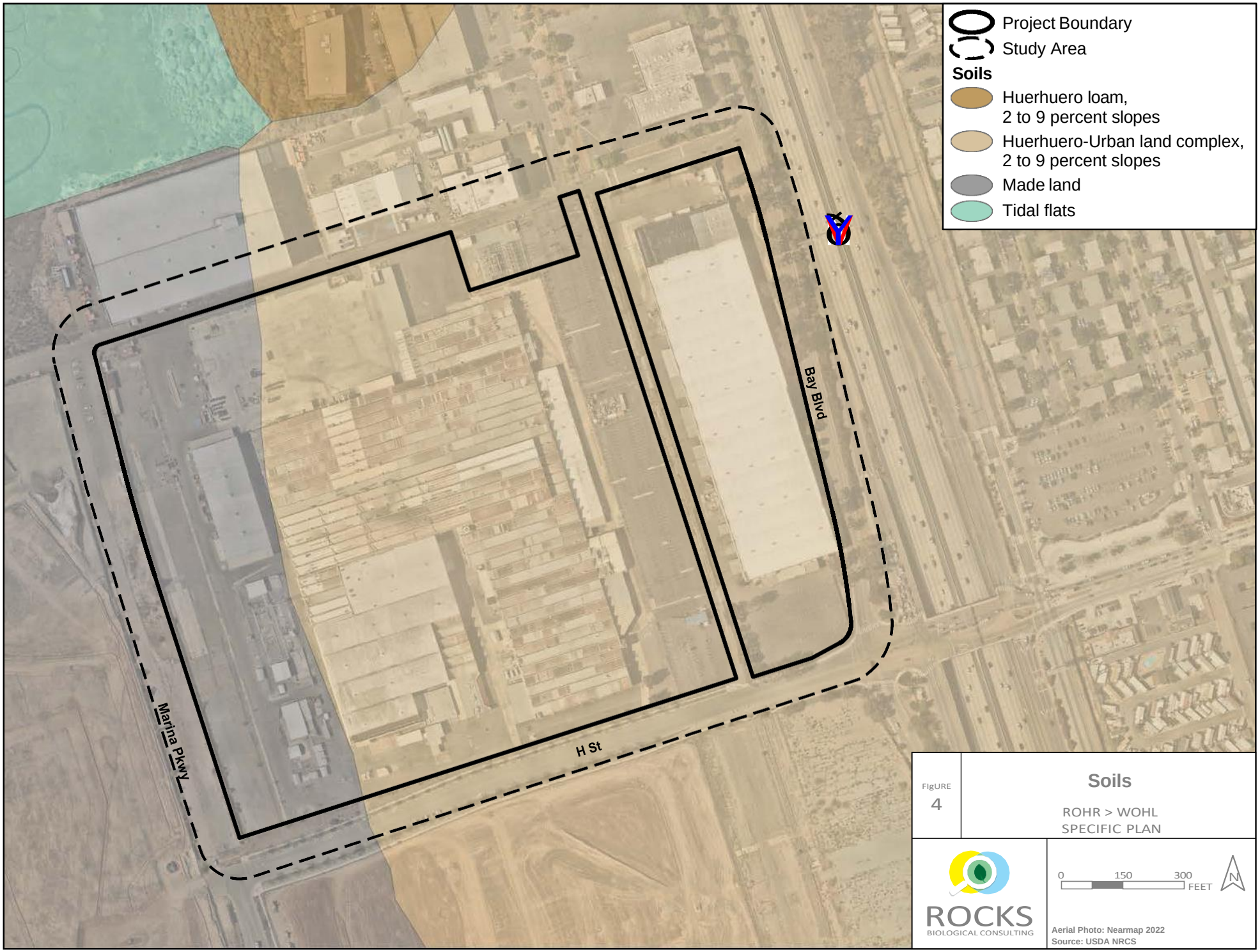


FIgURE 4

Soils

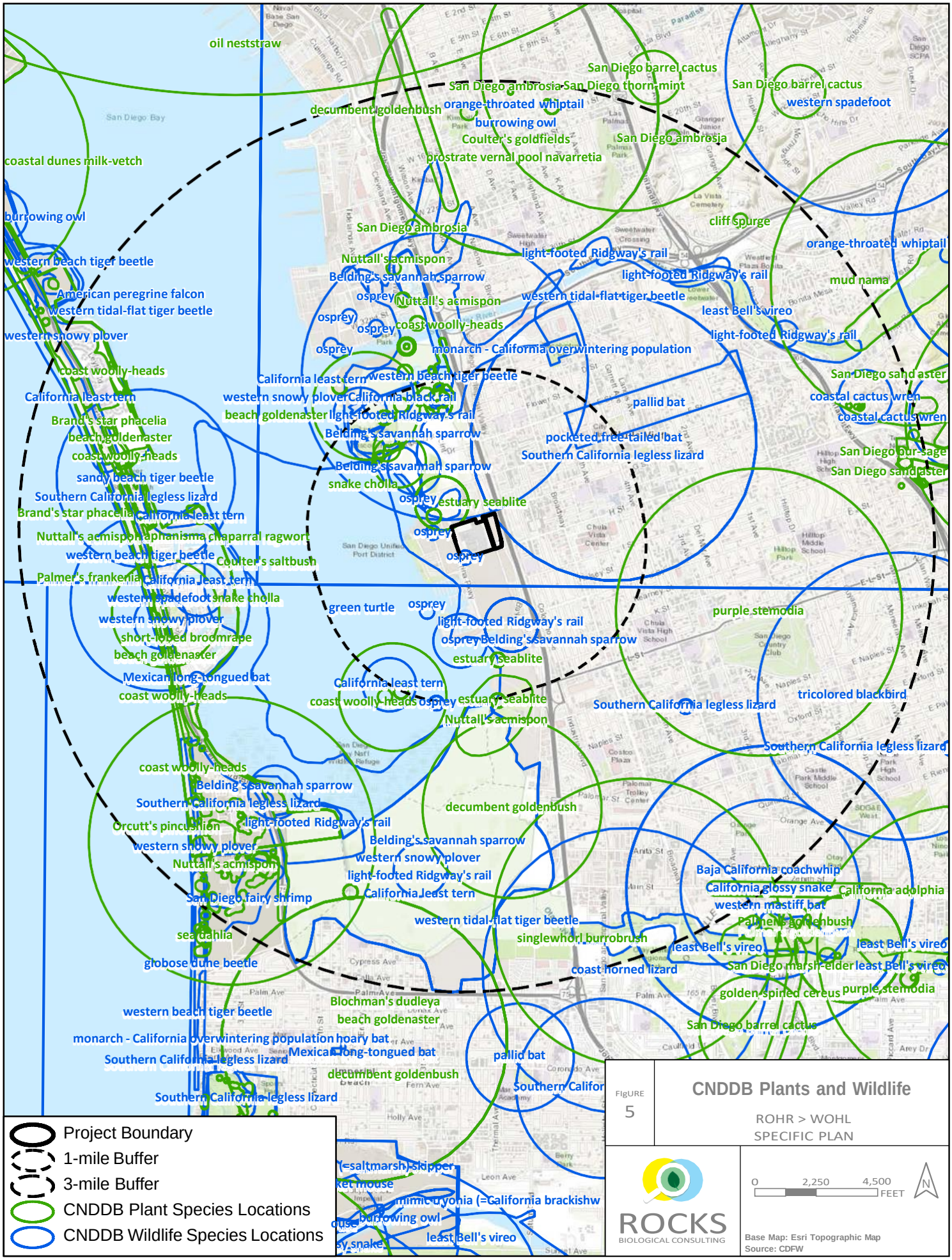
ROHR > WOHL SPECIFIC PLAN

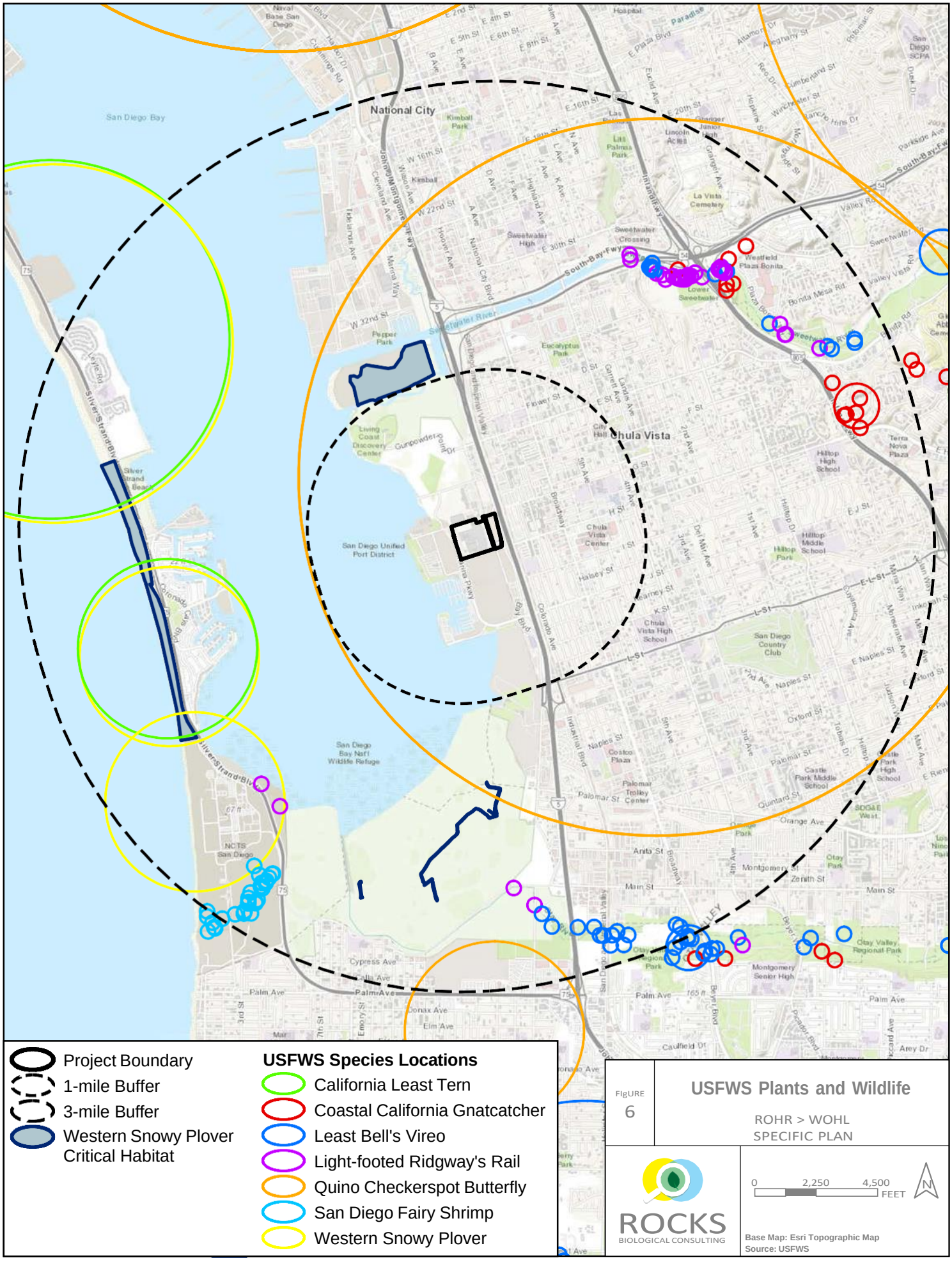
ROCKS BIOLOGICAL CONSULTING

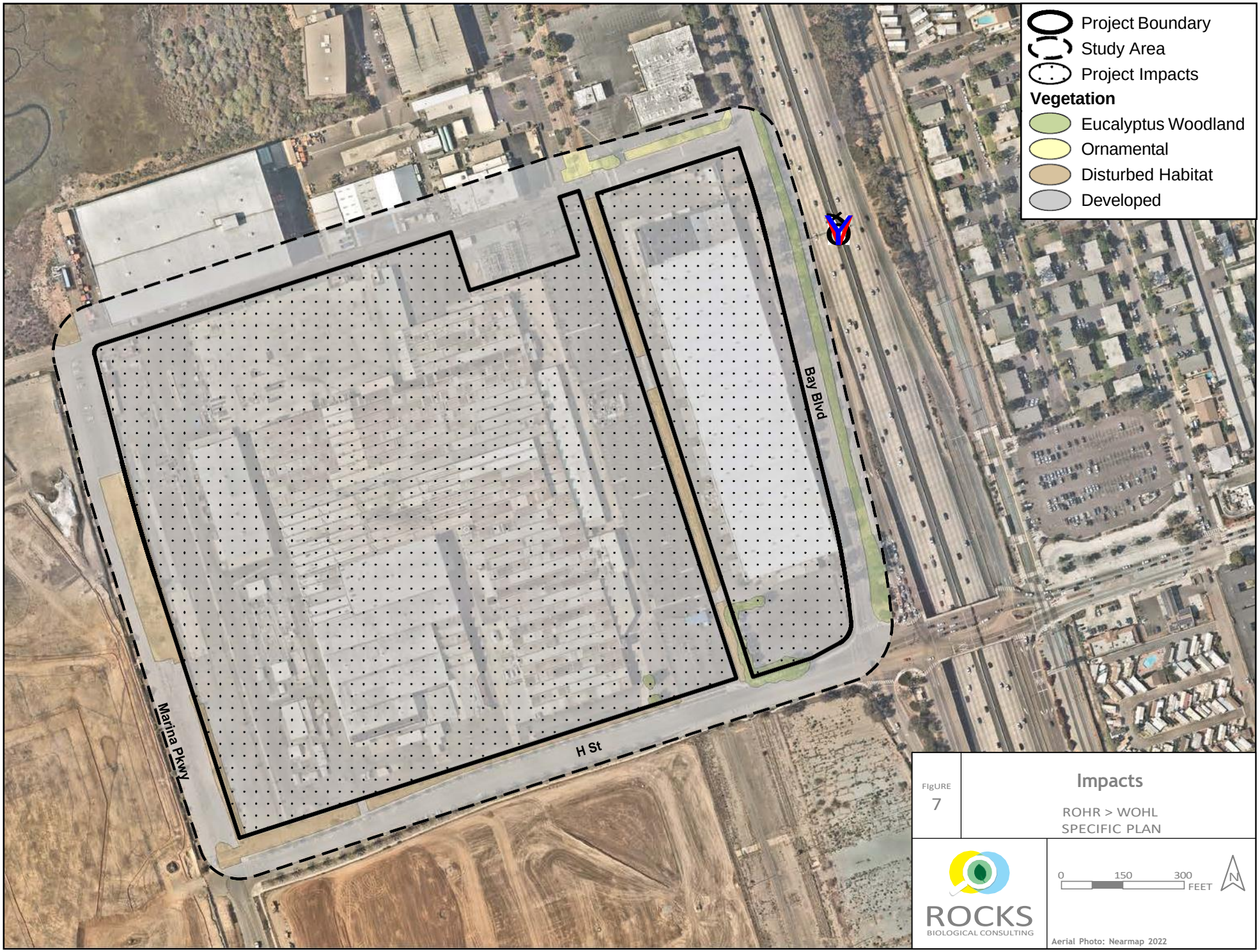
0 150 300 FEET

N

Aerial Photo: Nearmap 2022
Source: USDA NRCS


oil neststraw
San Diego barrel cactus
San Diego ambrosia
San Diego thorn-mint
San Diego barrel cactus
western spadefoot
decumbent goldenbush
orange-throated whiptail
burrowing owl
Coulter's goldfields
San Diego ambrosia
prostrate vernal pool navarretia
coastal dunes milk-vetch
burrowing owl
cliff spurge
San Diego ambrosia
orange-throated whiptail
light-footed Ridgway's rail
western beach tiger beetle
Nuttall's acmispon
Belding's savannah sparrow
light-footed Ridgway's rail
mud nama
American peregrine falcon
osprey
Nuttall's acmispon
western tidal-flat tiger beetle
western tidal-flat tiger beetle
least Bell's vireo
osprey
osprey
coast woolly-heads
western snowy plover
light-footed Ridgway's rail
osprey
monarch - California overwintering population
coast woolly-heads
California least tern
western beach tiger beetle
San Diego sand aster
California least tern
western snowy plover
California black rail
pallid bat
coastal cactus wren
Brand's star phacelia
beach goldenaster
light-footed Ridgway's rail
coastal cactus wren
beach goldenaster
Belding's savannah sparrow
pocketed free-tailed bat
San Diego sun-sage
coast woolly-heads
Southern California legless lizard
San Diego sand aster
Belding's savannah sparrow
sandy beach tiger beetle
snake cholla
Southern California legless lizard
osprey
estuary seablite
Brand's star phacelia
California least tern
osprey
Nuttall's acmispon
haplopappus
chaparral ragwort
osprey
western beach tiger beetle
Coulter's saltbush
Palmer's frankenia
California least tern
western spadefoot
snake cholla
green turtle
osprey
purple stemodia
western snowy plover
light-footed Ridgway's rail
short-lobed broomrape
osprey
Belding's savannah sparrow
beach goldenaster
estuary seablite
Mexican long-tongued bat
California least tern
tricolored blackbird
coast woolly-heads
coast woolly-heads
osprey
estuary seablite
Southern California legless lizard
Nuttall's acmispon
Southern California legless lizard
coast woolly-heads
Belding's savannah sparrow
Southern California legless lizard
decumbent goldenbush
Orcutt's pincushion
light-footed Ridgway's rail
western snowy plover
Belding's savannah sparrow
Nuttall's acmispon
western snowy plover
light-footed Ridgway's rail
Baja California coachwhip
California glossy snake
California adolphia
San Diego fairy shrimp
California least tern
western mastiff bat
western tidal-flat tiger beetle
Palmer's goldenbush
sea dahlia
singlewhorl burrobrush
least Bell's vireo
least Bell's vireo
globose dune beetle
coast horned lizard
San Diego marsh-elder
least Bell's vireo
golden-spined cereus
purple stemodia
Blochman's dudleya
western beach tiger beetle
beach goldenaster
San Diego barrel cactus
monarch - California overwintering population
hoary bat
Mexican long-tongued bat
pallid bat
Southern California legless lizard
decumbent goldenbush
Southern Californ
Southern California legless lizard
(=saltmarsh) skipper
ket mouse
mimicry onia (=California brackishw
ouse
burrowing owl
sy snake
least Bell's vireo
Project Boundary
1-mile Buffer
3-mile Buffer
CNDDB Plant Species Locations
CNDDB Wildlife Species Locations
FIGURE
5
CNDDB Plants and Wildlife
ROHR > WOHL
SPECIFIC PLAN
ROCKS
BIOLOGICAL CONSULTING
0
2,250
4,500
FEET
N
Base Map: Esri Topographic Map
Source: CDFW


National City
Chula Vista
San Diego Bay
Project Boundary
1-mile Buffer
3-mile Buffer
Western Snowy Plover Critical Habitat
USFWS Species Locations
California Least Tern
Coastal California Gnatcatcher
Least Bell's Vireo
Light-footed Ridgway's Rail
Quino Checkerspot Butterfly
San Diego Fairy Shrimp
Western Snowy Plover
FIGURE 6
USFWS Plants and Wildlife
ROHR > WOHL SPECIFIC PLAN
ROCKS BIOLOGICAL CONSULTING
0 2,250 4,500 FEET
N
Base Map: Esri Topographic Map
Source: USFWS


Project Boundary
Study Area
Project Impacts
Vegetation
Eucalyptus Woodland
Ornamental
Disturbed Habitat
Developed
Bay Blvd
H St
Marina Pkwy
FIgURE
7
Impacts
ROHR > WOHL
SPECIFIC PLAN
ROCKS
BIOLOGICAL CONSULTING
0
150
300
FEET
N
Aerial Photo: Nearmap 2022

APPENDIX A

REGULATORY FRAMEWORK

Appendix A

Regulatory Framework

Federal Regulations

Federal Endangered Species Act

The federal Endangered Species Act of 1973 (ESA; 16 U.S.C. § 1531 et seq.), as amended, provides for listing of endangered and threatened species of plants and animals and designation of critical habitat for listed species. The ESA regulates the "take" of any endangered fish or wildlife species, per Section 9. As development is proposed, the responsible agency or individual landowner is required to consult with the USFWS to assess potential impacts on listed species (including plants) or their critical habitat, pursuant to Sections 7 and 10 of the ESA. USFWS is required to make a determination as to the extent of impact a project would have on a particular species. If it is determined that potential impacts on a species would likely occur, measures to avoid or reduce such impacts must be identified. USFWS may issue an incidental take statement, following consultation and the issuance of a Biological Opinion. This allows for take of the species that is incidental to another authorized activity, provided that the action will not adversely affect the existence of the species. Section 10 of the ESA provides for issuance of incidental take permits to non-federal parties with the development of a habitat conservation plan (HCP); Section 7 provides for permitting of federal projects.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA; 16 U.S.C. § 703 et seq.) is a federal statute that implements treaties with several countries on the conservation and protection of migratory birds. The number of bird species covered by the MBTA is extensive and listed at 50 Code of Federal Regulations (CFR) 10.13. The USFWS enforces the MBTA, which prohibits "by any means or in any manner, to pursue, hunt, take, capture, [or] kill" any migratory bird, or attempt such actions, except as permitted by regulation.

Clean Water Act

Pursuant to Section 404 of the CWA (33 U.S. Code § 1344), the U.S. Army Corps of Engineers (Corps) is authorized to regulate any activity that would result in the discharge of dredged or fill material into waters of the U.S. (including wetlands), which include those waters listed in 33 CFR 328.3 (51 Federal Register [FR] 41217, November 13, 1983; 53 FR 20764, June 6, 1988) and further defined by the 2001 *Solid Waste Agency of Northern Cook County v. U.S. Army Corps of Engineers* (SWANCC; 531 U.S. 159) decision and the 2006 *Rapanos v. United States* (547 U.S. 715) decision. The Corps, with oversight from the U.S. Environmental Protection Agency (USEPA), has the principal authority to issue CWA Section 404 permits. The Corps would require a Standard Individual Permit (SIP) for more than minimal impacts to waters of the U.S. as determined by the Corps. Projects with minimal individual and cumulative adverse effects on the environment may meet the conditions of an existing Nationwide Permit (NWP).

A Water Quality Certification or waiver pursuant to Section 401 of the CWA (33 U.S. Code § 1341) is required for all Section 404 permitted actions. The Regional Water Quality Control Board (RWQCB), a division of the State Water Resources Control Board, provides oversight of the 401

permit process in California. The RWQCB must certify "that there is a reasonable assurance that the activity will be conducted in a manner which will not violate water quality standards" (40 CFR 121.2(a)(3)). Water Quality Certifications must be based on the finding that a proposed discharge will comply with applicable water quality standards.

The National Pollutant Discharge Elimination System (NPDES) is the permitting program for discharge of pollutants into surface waters of the U.S. under Section 402 of the CWA (33 U.S. Code § 1342).

State Regulations

California Coastal Act

The California Coastal Commission (CCC), through provisions of the California Coastal Act (CCA; Public Resources Code § 3000 et seq.), is responsible for issuing a Coastal Development Permit (CDP) for proposed projects within the Coastal Zone. In areas where a local entity (e.g., a city) has a certified Local Coastal Program (LCP), the local entity can issue a CDP for a project if the project is consistent with the current LCP. The CCC, however, has appeal authority for aspects of LCPs and retains jurisdiction over certain public trust lands in areas without an LCP.

California Endangered Species Act and Natural Community Conservation Planning Act

The California Endangered Species Act of 1984 (CESA; California Fish and Game Code [CFGC] § 2050 et seq.), in combination with the California Native Plant Protection Act of 1977 (CFGC § 1900 et seq.), regulates the listing and take of plant and animal species designated as endangered, threatened, or rare within the state. California also lists species of special concern based on limited distribution; declining populations; diminishing habitat; or unusual scientific, recreational, or educational value. The California Department of Fish and Wildlife (CDFW) is responsible for assessing development projects for their potential to impact listed species and their habitats. State-listed special-status species are addressed through the issuance of a 2081 permit (Memorandum of Understanding).

In 1991, the California Natural Community Conservation Planning (NCCP) Act (CFGC § 2800 et seq.) was approved and the NCCP Coastal Sage Scrub program was initiated in Southern California. The NCCP program was established “to provide for regional protection and perpetuation of natural wildlife diversity while allowing compatible land use and appropriate development and growth.” The NCCP Act encourages preparation of plans that address habitat conservation and management on an ecosystem basis rather than one species or habitat at a time.

California Environmental Quality Act

The California Environmental Quality Act (CEQA; California Public Resources Code § 21000 et seq.) was established in 1970 as California’s counterpart to NEPA. CEQA requires state and local agencies to identify significant environmental impacts of their actions and to avoid or mitigate those impacts, where feasible.

CEQA applies to certain activities of state and local public agencies. A public agency must comply with CEQA when it undertakes an activity defined by CEQA as a "project." A project is an activity

undertaken by a public agency or a private activity, which must receive some discretionary approval (meaning that the agency has the authority to deny the requested permit or approval) from a government agency that may cause either a direct physical change in the environment or a reasonably foreseeable indirect change in the environment.

California Fish and Game Code Sections 1600-1602

Pursuant to Division 2, Chapter 6, Section 1602 of the CFGC, CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel or bank of any river, stream or lake that supports fish or wildlife. A Notification of Lake or Streambed Alteration must be submitted to CDFW for "any activity that may substantially divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake" (CFGC § 1602). CDFW has jurisdiction over riparian habitats associated with watercourses and wetland habitats supported by a river, lake, or stream. Jurisdictional waters are delineated by the outer edge of riparian vegetation (i.e., drip line) or at the top of the bank of streams or lakes, whichever is wider. CDFW jurisdiction does not include tidal areas or isolated resources (e.g., riparian or wetland areas not supported by a river, lake, or stream). CDFW reviews the proposed actions and, if necessary, submits (to the applicant) a proposal that includes measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by CDFW and the applicant is the Lake or Streambed Alteration Agreement.

California Fish and Game Code Sections 3503, 3511, 3513, 3800, 4700, 5050, and 5515

CDFW protects and manages fish, wildlife, and native plant resources within California. The California Fish and Game Commission and/or CDFW are responsible for issuing permits for the take or possession of protected species. The following sections of the CFGC address protected species: Section 3511 (birds), Section 4700 (mammals), Section 5050 (reptiles and amphibians), and Section 5515 (fish). In addition, the protection of birds of prey is provided for in Sections 3503, 3513, and 3800 of the CFGC.

Porter-Cologne Water Quality Control Act

The Porter-Cologne Water Quality Control Act (California Water Code § 13000 et seq.) provides for statewide coordination of water quality regulations. The State Water Resources Control Board was established as the statewide authority and nine separate RWQCBs were developed to oversee water quality on a day-to-day basis.

The RWQCBs have primary responsibility for protecting water quality in California. As discussed above, the RWQCBs regulate discharges to surface waters under the CWA. In addition, the RWQCBs are responsible for administering the Porter-Cologne Water Quality Control Act.

Pursuant to the Porter-Cologne Water Quality Control Act, the state is given authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. As such, any person proposing to discharge waste into a water body that could affect its water quality must first file a Report of Waste Discharge if a Section 404 permit is not required for the activity. "Waste" is partially defined as any waste substance associated with human habitation, including fill material discharged into water bodies.

Regional and Local Plans

City of Chula Vista General Plan

The Conservation Element of the City of Chula Vista (City) General Plan (City 2005) includes the following objectives and policies, applicable to the project site as they relate to the conservation and protection of natural resources within the City.

Objective - E1:

Conserve Chula Vista's sensitive biological resources.

Policy E1.1:

Implement the City of Chula Vista MSCP Subarea Plan.

City of Chula Vista Multiple Species Conservation Program (MSCP)

The City prepared a Chula Vista Subarea Plan in 2003 to obtain 'take' authorization of special status species under the San Diego Multiple Habitat Conservation Program (MHCP). The City's Subarea Plan provides a list of 86 covered species (46 plant species and 40 animal species).

The MSCP Subarea Plan (City 2003) includes the following Subarea Plan Goals:

1. To conserve Covered Species and their habitats through the conservation of interconnected significant habitat cores and linkages.
2. To delineate and assemble a Preserve using a variety of techniques, including public acquisition, on- and off-site mitigation, and land use regulations.
3. To provide a preserve management program that, together with the federal and state management activities, will be carried out over the long-term, further ensuring the conservation of Covered Species.
4. To provide necessary funding for a Preserve management program and biological monitoring of the Preserve.
5. To reduce or eliminate redundant federal, state, and local natural resource regulatory and environmental review of individual projects by obtaining federal and state authorizations for 86 species.

APPENDIX B

SITE PHOTOS

Appendix B

Site Photographs
April 27, 2022

Photo 1. Overview of typical developed habitat within the central portion of the project site.

Photo 2. View of former osprey (*Pandion haliaetus*) nest in the southwestern portion of the project site. Shown are two of the three chicks being cared for by two adult osprey (not pictured).

Photo 3. View of active osprey nest (right) and inactive osprey nest (left) being used as a perch by the adults.

Photo 4. View of culvert and asphalt drainage that occurs west of project Planning Area A and east of Planning Area B-1 and Planning Area B-2.

Photo 5. View of asphalt drainage that occurs west of project Planning Area A and east of Planning Area B-1 and Planning Area B-2, facing south.

Photo 6. View of asphalt drainage that occurs west of project Planning Area A and east of Planning Area B-1 and Planning Area B-2, facing north.

Photo 7. View of abandoned railroad and disturbed habitat that occurs west of project Planning Area A and east of Planning Area B-1 and Planning Area B-2. Asphalt drainage is shown on the right.

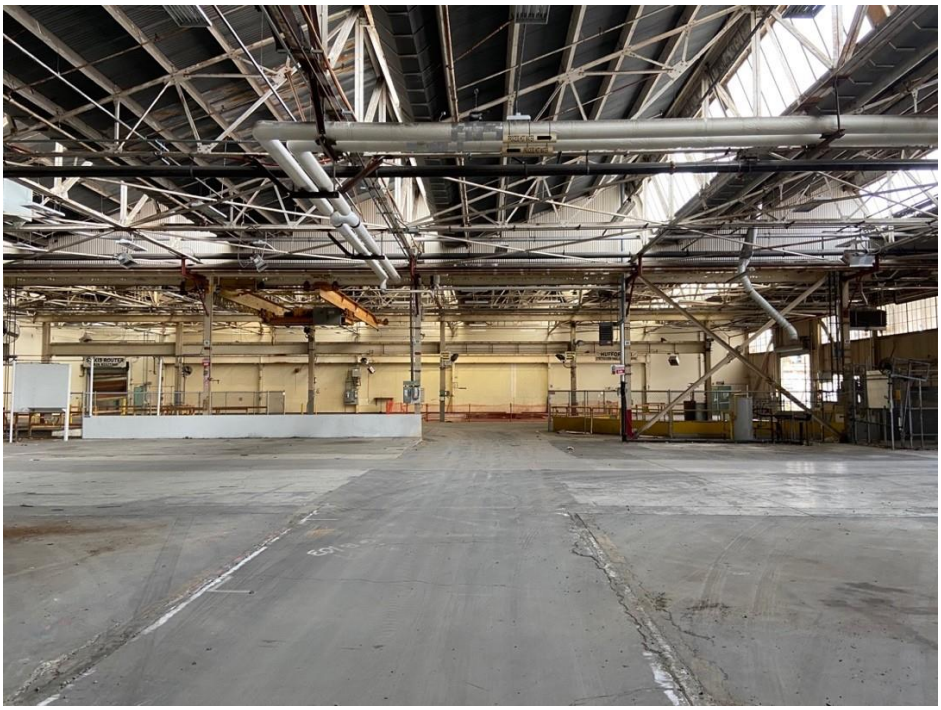


Photo 8. View inside of large development within the central portion of the project site.

Photo 9. View facing east of ornamental trees adjacent to the developed habitat in the eastern portion of the project site.

Photo 10. View facing southeast on the western side of the project site showing a stormwater collection grate.

APPENDIX C

POTENTIAL FOR SPECIAL-STATUS PLANT SPECIES TO OCCUR

Appendix C

Potential for Special-Status Plant Species to Occur

Species	Status	Habitat Description	Potential to Occur
Aphanisma (*Aphanisma blitoides*)	CRPR 1B.2	Annual herb. Blooms February-June. Coastal bluff scrub, coastal dunes, coastal scrub. Elev. 5-1,000 ft.	None. Suitable habitat is not present on site.
Beach goldenaster (*Heterotheca sessiliflora* ssp. *sessiliflora*)	CRPR 1B.1	Perennial herb. Blooms March-December. Chaparral (coastal), coastal dunes, coastal scrub. Elev. 0-4,020 ft.	None. Suitable habitat is not present on site. This perennial species would have been observed if present.
Blochman's dudleya (*Dudleya blochmaniae* ssp. *blochmaniae*)	CRPR 1B.1	Perennial herb. Blooms April-June. Coastal bluff scrub, chaparral, coastal scrub, valley and foothill grassland. Elev. 15-1,475 ft.	None. Suitable habitat is not present on site.
Brand's star phacelia (*Phacelia stellaris*)	CRPR 1B.1	Annual herb. Blooms March-June. Coastal dunes, coastal scrub. Elev. 5-1,310 ft.	None. Suitable habitat is not present on site.
California Orcutt grass (*Orcuttia californica*)	CRPR 1B.1, FE, SE	Annual herb. Blooms May-June. Vernal pools. Elev. 45-2,165 ft.	None. Vernal pool habitats are not present.
Campbell's liverwort (*Geothallus tuberosus*)	CRPR 1B.1	Ephemeral liverwort. Coastal scrub (mesic), vernal pools. Elev. 35-1,970 ft.	None. Suitable habitat is not present on site.
Chaparral ragwort (*Senecio aphanactis*)	CRPR 2B.2	Annual herb. Blooms January-April (May). Chaparral, cismontane woodland, coastal scrub. Elev. 50-2,625 ft.	None. Suitable habitat is not present on site.
Cliff spurge (*Euphorbia misera*)	CRPR 2B.2	Perennial shrub. Blooms December-August (October). Coastal bluff scrub, coastal scrub, Mojavean desert scrub. Elev. 30-1,640 ft.	None. Suitable habitat is not present on site. This perennial species would have been observed if present.
Coast woolly-heads (*Nemacaulis denudata* var. *denudata*)	CRPR 1B.2	Annual herb. Blooms April-September. Coastal dunes. Elev. 0-330 ft.	None. Suitable habitat is not present on site.
Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*)	CRPR 1B.1	Annual herb. Blooms February-June. Marshes and swamps (coastal salt), playas, vernal pools. Elev. 0-4,005 ft.	None. Suitable habitat is not present on site.

Species	Status	Habitat Description	Potential to Occur
Coulter's saltbush (*Atriplex coulteri*)	CRPR 1B.2	Perennial herb. Blooms March-October. Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland. Elev. 5-1,510 ft.	None. Suitable habitat is not present on site. This perennial species would have been observed if present.
Dean's milk-vetch (*Astragalus deanei*)	CRPR 1B.1	Perennial herb. Blooms February-May. Chaparral, cismontane woodland, coastal scrub, riparian forest. Elev. 245-2,280 ft.	None. Suitable habitat is not present on site. This perennial species would have been observed if present.
Decumbent goldenbush (*Isocoma menziesii* var. *decumbens*)	CRPR 1B.2	Perennial shrub. Blooms April-November. Chaparral and coastal scrub. Elev. 35-445 ft.	None. Suitable habitat is not present on site. This perennial species would have been observed if present.
Estuary seablite (*Suaeda esteroa*)	CRPR 1B.2	Perennial herb. Blooms (January-May) July-October. Marshes and swamps (coastal salt). Elev. 0-15 ft.	None. Suitable habitat is not present on site. This perennial species would have been observed if present.
Long-spined spineflower (*Chorizanthe polygonoides* var. *longispina*)	CRPR 1B.2	Annual herb. Blooms April-July. Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools. Elev. 95-5,020 ft.	None. Suitable habitat is not present on site.
Mud nama (*Nama stenocarpa*)	CRPR 2B.2	Annual/perennial herb. Blooms January-July. Marshes and swamps (lake margins, riverbanks). Elev.15-1,640 ft.	None. Suitable habitat is not present on site.
Nuttall's acmispon (*Acmispon prostratus*)	CRPR 1B.1	Annual herb. Blooms March-June (July). Coastal dunes, coastal scrub (sandy). Elev. 0-35 ft.	None. Suitable habitat is not present on site.
Oil neststraw (*Stylocline citroleum*)	CRPR 1B.1	Annual herb. Blooms March-April. Chenopod scrub, coastal scrub, valley and foothill grassland. Elev. 165-1,310 ft.	None. Suitable habitat is not present on site
Orcutt's pincushion (*Chaenactis glabriuscula* var. *orcuttiana*)	CRPR 1B.1	Annual herb. Blooms January-August. Coastal bluff scrub and coastal dunes. Elev. 0-330 ft.	None. Suitable habitat is not present on site.
Palmer's frankenia (*Frankenia palmeri*)	CRPR 2B.1	Perennial herb. Blooms May-July. Coastal dunes, marshes and swamps (coastal salt), playas. Elev. 0-35 ft.	None. Suitable habitat is not present on site. This perennial species would have been observed if present.

Species	Status	Habitat Description	Potential to Occur
Prostrate vernal pool navarretia (*Navarretia prostrata*)	CRPR 1B.1	Annual herb. Blooms April-July. Coastal scrub, meadows and seeps, valley and foothill grassland (alkaline), vernal pools. Elev. 5-3,970 ft.	None. Suitable habitat is not present on site.
Purple stemodia (*Stemodia durantifolia*)	CRPR 2B.1	Perennial herb. Blooms (January) April-December. Sonoran desert scrub (often mesic, sandy). Elev. 590-985 ft.	None. Suitable habitat is not present on site. This perennial species would have been observed if present.
Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*)	CRPR 4.3	Annual herb. Blooms January-July. Chaparral and coastal scrub. Elev. 5-2,905 ft.	Low. Suitable habitat is not present on site.
San Diego barrel cactus (*Ferocactus viridescens*)	CRPR 2B.1	Perennial stem succulent. Blooms May-Jun. Chaparral, coastal scrub, valley and foothill grassland, vernal pools. Elev. 5-1,475 ft.	None. Suitable habitat is not present on site. This perennial species would have been observed if present.
San Diego button-celery (*Eryngium aristulatum* var. *parishii*)	CRPR 1B.1, FE, SE	Annual/perennial herb. Blooms April-June. Mesic habitats in coastal scrub, valley and foothill grassland, and vernal pools. Elev. 65-2,035 ft.	None. Vernal pool habitats are not present.
San Diego sand aster (*Corethrogyne filaginifolia* var. *incana*)	CRPR 1B.1	Perennial herb. Blooms June-September. Coastal bluff scrub, chaparral, coastal scrub. Elev. 10-375 ft.	None. Suitable habitat is not present on site. This perennial species would have been observed if present.
Sea dahlia (*Leptosyne maritima*)	CRPR 2B.2	Perennial herb. Blooms March-May. Coastal bluff scrub, coastal scrub. Elev. 15-490 ft.	None. Suitable habitat is not present on site. This perennial species would have been observed if present.
Short-lobed broomrape (*Orobanche parishii* ssp. *brachyloba*)	CRPR 4.2	Perennial herb (parasitic). Blooms April-October. Coastal bluff scrub, coastal dunes, coastal scrub. Elev. 10-1000 ft.	Low. Suitable habitat is not present on site.
Singlewhorl burrobrush (*Ambrosia monogyra*)	CRPR 2B.2	Perennial scrub. Blooms August-November. Chaparral, Sonoran desert scrub. Elev. 35-1,640 ft.	None. Suitable habitat is not present on site. This perennial species would have been observed if present.

Species	Status	Habitat Description	Potential to Occur
Snake cholla (*Cylindropuntia californica* var. *californica*)	CRPR 1B.1, NE	Perennial stem. Blooms April-May. Chaparral, coastal scrub. Elev. 100-490 ft.	None. Suitable habitat is not present on site. This perennial species would have been observed if present.
South coast saltscale (*Atriplex pacifica*)	CRPR 1B.2	Annual herb. Blooms March-October. Coastal bluff scrub, coastal dunes, coastal scrub and playas. Elev. 0-460 ft.	None. Suitable habitat is not present on site.

CRPR: California Rare Plant Rank

FE: Endangered Species Act (ESA) Federally Endangered Species

FT: ESA Federally Threatened Species

SE: California Endangered Species Act (CESA) Endangered Species

NE: City of Chula Vista Multiple Species Conservation Program (MSCP) Narrow Endemic Species

CRPR Definitions

CRPR	1A	presumed extirpated in California and rare or extinct elsewhere
	1B	rare, threatened, or endangered in California and elsewhere
	2A	presumed extirpated in California but more common elsewhere
	2B	rare, threatened, or endangered in California but more common elsewhere
	3	plants for which more information needed
	4	plants of limited distribution
CRPR 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 (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

APPENDIX D

POTENTIAL FOR SPECIAL-STATUS WILDLIFE SPECIES TO OCCUR

Appendix D

Potential for Special-Status Wildlife Species to Occur

Species	Status	Habitat	Potential to Occur
INVERTEBRATES			
Crotch bumble bee (*Bombus crotchii*)	FC	Found in open grasslands and scrublands from coastal California east toward the Sierra-Cascade Crest.	Low. Grassland habitat on site is highly disturbed. Suitable native nectar sources not observed on site.
Globose dune beetle (*Coelus globosus*)	FC	Found in coastal sand dunes.	None. Suitable habitat is not present on site.
Monarch (*Danaus plexippus*)	FC	Found in open fields and meadows with milkweed in the summer. Found in a variety of habitats with nectar sources during the winter. Roost in eucalyptus, Monterey pines, and Monterey cypresses in California.	Low. Several areas with planted eucalyptus are present on site but nectar sources are limited.
Quino checkerspot butterfly (*Euphydryas editha quino*)	FE	Found in sparsely vegetated habitats including open coastal sage scrub and chaparral, vernal pool complexes, oak woodland, and desert pinyon-juniper woodland.	None. Suitable habitat is not present on site.
Riverside fairy shrimp (*Streptocephalus woottoni*)	FE	Vernal pools or other seasonal pools with a depth greater than 30 cm.	None. Vernal pools are not present on site. No depressional areas suitable to support ponding or Anostraca species are present within the project site as all on-site areas of lower topography are associated with asphalt drainages.
Sandy beach tiger beetle (*Cicindela hirticollis gravida*)	FT	Found in unaltered beaches with significant sand dunes or beach grass areas above the high-tide line for burrowing.	None. Suitable habitat is not present on site.
San Diego fairy shrimp (*Branchinecta sandiegonensis*)	FE	Found in vernal pools and similar ephemeral wetlands, including artificial habitats. Habitat is typically shallow with a depth less than 30 cm.	None. Vernal pools are not present on site. No depressional areas suitable to support ponding or Anostraca species are present within the project site as all on-site areas of lower topography are associated with asphalt drainages.

Species	Status	Habitat	Potential to Occur
REPTILES			
Baja California coachwhip (*Masticophis fuliginosus*)	SSC	Found in grass, desert, scrub, chaparral, and pasture habitats.	Low. Project site is located north of their widely accepted range limits. Disturbed land would provide low quality habitat.
California glossy snake (*Arizona elegans occidentalis*)	SSC	Found primarily in desert habitats but also occur in chaparral, sagebrush, valley-foothill hardwood, pine-juniper, and annual grasslands.	None. This species prefers open sandy and rocky areas which are not present on site.
Coast horned lizard (*Phrynosoma blainvillii*)	SSC	Found in a variety of open habitats, especially sandy areas, washes, flood plains, and wind-blown deposits.	None. Suitable habitat is not present on site.
Green turtle (*Chelonia mydas*)	FT	Found in shallow oceanic and coastal aquatic habitats containing abundant aquatic vegetation for grazing.	None. Aquatic habitat is not present on site.
Orange-throated whiptail (*Aspidoscelis hyperythra*)	WL	Found in a variety of habitats including sage scrub, chaparral, and coniferous and broadleaf woodlands. Found on sandy or friable soils with open scrub.	Low. Only marginally suitable habitat is present on site within the disturbed lands to the north.
Southern California legless lizard (*Anniella stebbinsi*)	SSC	Found in a variety of habitats including coastal dunes, sandy washes, and alluvial fans, containing moist, loose soils.	Low. Only marginally suitable habitat is present on site within the disturbed lands to the north.
AMPHIBIANS			
Western spadefoot (*Spea hammondii*)	SSC	Temporary ponds, vernal pools, and backwaters of flowing creeks, as well as adjacent upland habitats such as grasslands and coastal sage scrub for burrowing.	None. Suitable aquatic habitats are not present on site or adjacent to the project.
BIRDS			

Species	Status	Habitat	Potential to Occur
American peregrine falcon (*Falco peregrinus anatum*)	FP (nesting)	Found in wetlands, woodlands, forests, cities, agricultural areas, and coastal habitats. Approximately 20% of the population in California nest on buildings and bridges.	Low. An immature American peregrine falcon was observed on site during the general biological survey. Building rooftops may provide suitable nesting habitat. Ample prey, such as rock pigeons, are available on site.
Belding's savannah sparrow (*Passerculus sandwichensis beldingi*)	SE	Found in tidal coastal salt marsh habitats, often containing pickleweed (*Salicornia* spp.).	None. Suitable habitat is not present on site.
Burrowing owl (*Athene cunicularia*)	SSC (burrow sites & some wintering sites)	Found in grasslands and open scrub. Strongly associated with ground squirrels and other fossorial mammal burrows.	Low. Suitable habitat is present within disturbed lands to the north, however suitable burrows and California ground squirrels (*Otospermophilus beecheyi*) were not documented on site.
California black rail (*Laterallus jamaicensis coturniculus*)	ST, FP	Found in salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation containing emergent vegetation.	None. Aquatic habitat is not present on site.
California least tern (*Sternula antillarum browni*)	FE, SE, FP (nesting colony)	Nests on beaches and mudflats with access to the open ocean. Also nest on barren or sparsely vegetated disturbed land with sandy or gravelly substrate.	None. Suitable nesting habitat is not present on site. Disturbed lands on site are heavily vegetated with non-native grasses.
Coastal California gnatcatcher (*Polioptila californica californica*)	FT, SSC	Found in sage scrub and adjacent chaparral habitats often containing buckwheat or sagebrush.	None. Suitable habitat is not present on site.
Coastal cactus wren (*Campylorhynchus brunneicapillus sandiegensis*)	SSC	Found in coastal sage scrub and other arid upland habitats with cacti thickets.	None. Suitable habitat is not present on site.
Least Bell's vireo (*Vireo bellii pusillus*)	FE, SE (nesting)	Found in riparian woodland with understory of dense young willows or mulefat and willow canopy. Nests often placed along internal or external edges of riparian thickets.	None. Suitable habitat is not present on site.

Species	Status	Habitat	Potential to Occur
Light-footed Ridgway's rail (*Rallus obsoletus levipes*)	FE, SE, FP	Found in salt marshes and coastal freshwater marshes.	None. Suitable habitat is not present on site.
Osprey (*Pandion haliaetus*)	WL (nesting)	Found near aquatic habitats; species requires aquatic habitats for prey (fish). Nests in tall, dead snags or artificial platforms.	Present. One nest with three fledglings and two adults was observed on site during the general biological survey.
Southwestern willow flycatcher (*Empidonax traillii extimus*)	FE, SE (nesting)	Found in dense riparian woodlands comprised of willows and cottonwoods.	None. Suitable habitat is not present on site.
Tricolored blackbird (*Agelaius tricolor*)	ST, SSC (nesting colony)	Found nesting in wetlands with cattails, bulrushes, and willows. Forages in cultivated fields, feedlots associated with dairy farms, and wetlands.	None. Aquatic nesting habitat is not present on site.
Western snowy plover (*Charadrius alexandrinus nivosus*)	FT, SSC (nesting)	Nests on beaches and sand dunes.	None. Suitable habitat is not present on site.
MAMMALS			
Mexican long-tongued bat (*Choeronycteris mexicana*)	SSC	Found in urban habitat, desert and montane riparian, desert succulent shrub, desert scrub, and pinyon-juniper habitats. Feeds primarily on nectar.	Low. Although some suitable day roosts are available in abandoned buildings, adequate nectar sources are not available on site.
Pacific pocket mouse (*Perognathus longimembris pacificus*)	FE	Found in sandy soil in open coastal sage scrub, coastal dune, and river alluvium habitats.	None. Suitable habitat is not present on site. Species is not known to occur within Chula Vista.
Pallid bat (*Antrozous pallidus*)	SSC	Found in a variety of arid habitats. Rocky areas preferred for roosting but may also use man-made structures.	Moderate. Some suitable day roosts are available in abandoned buildings. Although high quality foraging habitat is not available on site, moderately suitable foraging habitat is present within proximity to the site.
Pocketed free-tailed bat (*Nyctinomops femorosaccus*)	SSC	Found in rugged cliffs, rocky outcrops, and slopes in desert shrub and pine oak forests.	None. Suitable roosting site and foraging habitat not present.

Species	Status	Habitat	Potential to Occur
Western mastiff bat (*Eumops perotis californicus*)	SSC	Found in areas with extensive open space for foraging and abundant roost locations provided by crevices in rock outcrops and buildings.	Moderate. Some suitable day roosts are available in abandoned buildings Although high quality foraging habitat is not available on site, moderately suitable foraging habitat is present within proximity to the site.

FC: Candidate for Listing Under Endangered Species Act (ESA)
FE: ESA Federally Endangered Species
FT: ESA Federally Threatened Species
SE: California Endangered Species Act (CESA) Endangered Species
ST: CESA Threatened Species
FP: California Department of Fish and Wildlife (CDFW) Fully Protected Species
SSC: CDFW Species of Special Concern
WL: CDFW Watch List Species

APPENDIX E

PLANT SPECIES OBSERVED WITHIN THE STUDY AREA

Appendix E

Plant Species Observed within the Study Area

Family	Common Name	Scientific Name
PLANTS		
Agavaceae	American agave	*Agave americana* *
Aizoaceae	Crocea iceplant	*Malephora crocea* var. *crocea* *
Aizoaceae	Crystalline iceplant	*Mesembryanthemum crystallinum* *
Anacardiaceae	Brazilian pepper tree	*Schinus terebinthifolius* *
Apiaceae	Sweet fennel	*Foeniculum vulgare* *
Arecaceae	Mexican fan palm	*Washingtonia robusta* *
Asteraceae	Mule-fat, seep-willow	*Baccharis salicifolia* ssp. *salicifolia*
Asteraceae	Broom baccharis	*Baccharis sarothroides*
Asteraceae	Tocalote	*Centaurea melitensis* *
Asteraceae	Flax-leaf fleabane	*Erigeron bonariensis* *
Asteraceae	Horseweed	*Erigeron canadensis*
Asteraceae	Garland/crown daisy	*Glebionis coronaria* *
Asteraceae	Telegraph weed	*Heterotheca grandiflora*
Asteraceae	Prickly lettuce	*Lactuca serriola* *
Asteraceae	Bicolor cudweed	*Pseudognaphalium biolettii*
Asteraceae	Prickly sow-thistle	*Sonchus asper* ssp. *asper* *
Asteraceae	Common sow-thistle	*Sonchus oleraceus* *
Boraginaceae	Salt heliotrope	*Heliotropium curassavicum* var. *oculatum*
Brassicaceae	Black mustard	*Brassica nigra* *
Brassicaceae	Short-pod mustard	*Hirschfeldia incana* *
Brassicaceae	Wild radish	*Raphanus sativus* *
Brassicaceae	Tumble/Jim Hill mustard	*Sisymbrium altissimum* *
Caryophyllaceae	Four-leaf allseed	*Polycarpon tetraphyllum* ssp. *tetraphyllum* *
Chenopodiaceae	Australian saltbush	*Atriplex semibaccata* *
Chenopodiaceae	Prickly Russian-thistle, tumbleweed	*Salsola tragus* *
Cupressaceae	Juniper sp.	*Juniperus* sp. *
Euphorbiaceae	Spotted spurge	*Euphorbia maculata* *
Euphorbiaceae	Castor bean	*Ricinus communis* *
Fabaceae	Coastal deerweed	*Acmispon glaber* var. *glaber*
Fabaceae	Miniature lupine	*Lupinus bicolor*

Family	Common Name	Scientific Name
Fabaceae	White sweetclover	*Melilotus albus* *
Fabaceae	Indian sweetclover	*Melilotus indicus* *
Fagaceae	Holly oak	*Quercus ilex* *
Geraniaceae	Filaree/storksbill sp.	*Erodium* sp. *
Lamiaceae	Horehound	*Marrubium vulgare* *
Lythraceae	Grass poly	*Lythrum hyssopifolia* *
Malvaceae	Cheeseweed	*Malva parviflora* *
Mytaceae	Blue gum	*Eucalyptus globulus* *
Mytaceae	Red river gum	*Eucalyptus camadulensis* *
Myrtaceae	Bottlebrush sp.	*Melaleuca* sp. *
Oleaceae	Olive	*Olea europaea* *
Onagraceae	Beautiful evening-primrose	*Oenothera speciosa*
Poaceae	Slender wild oat	*Avena barbata* *
Poaceae	Purple false brome	*Brachypodium distachyon* *
Poaceae	Ripgut grass	*Bromus diandrus* *
Poaceae	Foxtail chess, red brome	*Bromus rubens* *
Poaceae	Southern sandbur	*Cenchrus echinatus* *
Poaceae	African fountain grass	*Cenchrus setaceus* *
Poaceae	Selloa pampas grass	*Cortaderia selloana* *
Poaceae	Bermuda grass	*Cynodon dactylon* *
Poaceae	Rat-tail fescue	*Festuca myuros* *
Poaceae	Goose grass	*Eleusine indica* *
Poaceae	Barley sp.	*Hordeum* sp. *
Poaceae	Golden-top	*Lamarckia aurea* *
Poaceae	Annual beard grass	*Polypogon monspeliensis**
Poaceae	Natal grass	*Melinis repens* *
Poaceae	Smilo grass	*Stipa miliacea* var. *miliacea* *
Simaroubaceae	Tree-of-heaven	*Ailanthus altissima* *
Solanaceae	Western jimson weed	*Datura wrightii*
Solanaceae	Tree tobacco	*Nicotiana glauca* *
Solanaceae	White nightshade	*Solanum americanum*
*non-native species		

APPENDIX F

WILDLIFE SPECIES OBSERVED WITHIN THE STUDY AREA

Appendix F

Wildlife Species Observed within the Study Area

Family	Common Name	Scientific Name
BIRDS		
Aegithalidae	Bushtit	*Psaltriparus minimus*
Ardeidae	Great blue heron	*Ardea herodias*
Columbidae	Rock pigeon	*Columba livia*
Columbidae	Eurasian collared-dove	*Streptopelia decaocto*
Columbidae	Mourning dove	*Zenaida macroura*
Corvidae	American crow	*Corvus brachyrhynchos*
Falconidae	Peregrine falcon	*Falco peregrinus*[1]
Fringillidae	House finch	*Haemorhous mexicanus*
Hirundinidae	Northern rough-winged swallow	*Stelgidopteryx serripennis*
Laridae	Western gull	*Larus occidentalis*
Pandionidae	Osprey	*Pandion haliaetus*[2]
Passerellidae	California towhee	*Melozone crissalis*
Passerellidae	Song sparrow	*Melospiza melodia*
Sturnidae	European starling	*Sturnus vulgaris*
Trochilidae	Anna's hummingbird	*Calypte anna*
[1] U.S. Fish & Wildlife Service Birds of Conservation Concern [2] California Department of Fish & Wildlife Watch List		
MAMMALS		
Leporidae	Desert cottontail	*Sylvilagus audubonii*