Biological Resources Technical Report for the Nakano Project Chula Vista, California

Prepared for
Tri Pointe Homes
13520 Evening Creek Drive North, Suite 300
San Diego, CA 92128
Contact: Allen Kashani

Prepared by
RECON Environmental, Inc.
3111 Camino del Rio North, Suite 600
San Diego, CA 92108
P 619.308.9333

RECON Number 3396-1
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Cailin Lyons
Director, Biology Group

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11: 2011 MSCP Annual Report Excerpt with Helix Memo
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Acronyms and Abbreviations

amsl	above mean sea level
APN	Assessor's Parcel Number
BCME	Biological Construction Mitigation/Monitoring Exhibit
BI	Building Inspector
BMP	Best Management Practices
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFGC	California Fish and Game Code
CFR	Code of Federal Regulations
CM	Construction Manager
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
dB(A)	A-weighted decibels
DSD	Development Services Department
ESL	Environmentally Sensitive Lands
FESA	federal Endangered Species Act
GC	Grading Contractor
GIS	Geographic information system
HLIT	Habitat Loss and Incidental Take
I-805	Interstate 805
LCD	Landscape Construction Documents
MBTA	Migratory Bird Treaty Act
MHPA	Multi-Habitat Planning Area
MMC	Mitigation Monitoring Coordination
MSCP	Multiple Species Conservation Program
NHD	National Hydrography Dataset
PRS	Principal Restoration Specialist
QBM	Qualified Biological Monitor
RE	Resident Engineer
RIC	Revegetation Installation Contractor
RMC	Revegetation Maintenance Contractor
RRME	revegetation/restoration monitoring exhibit
RWQCB	Regional Water Quality Control Board
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1.0 Introduction

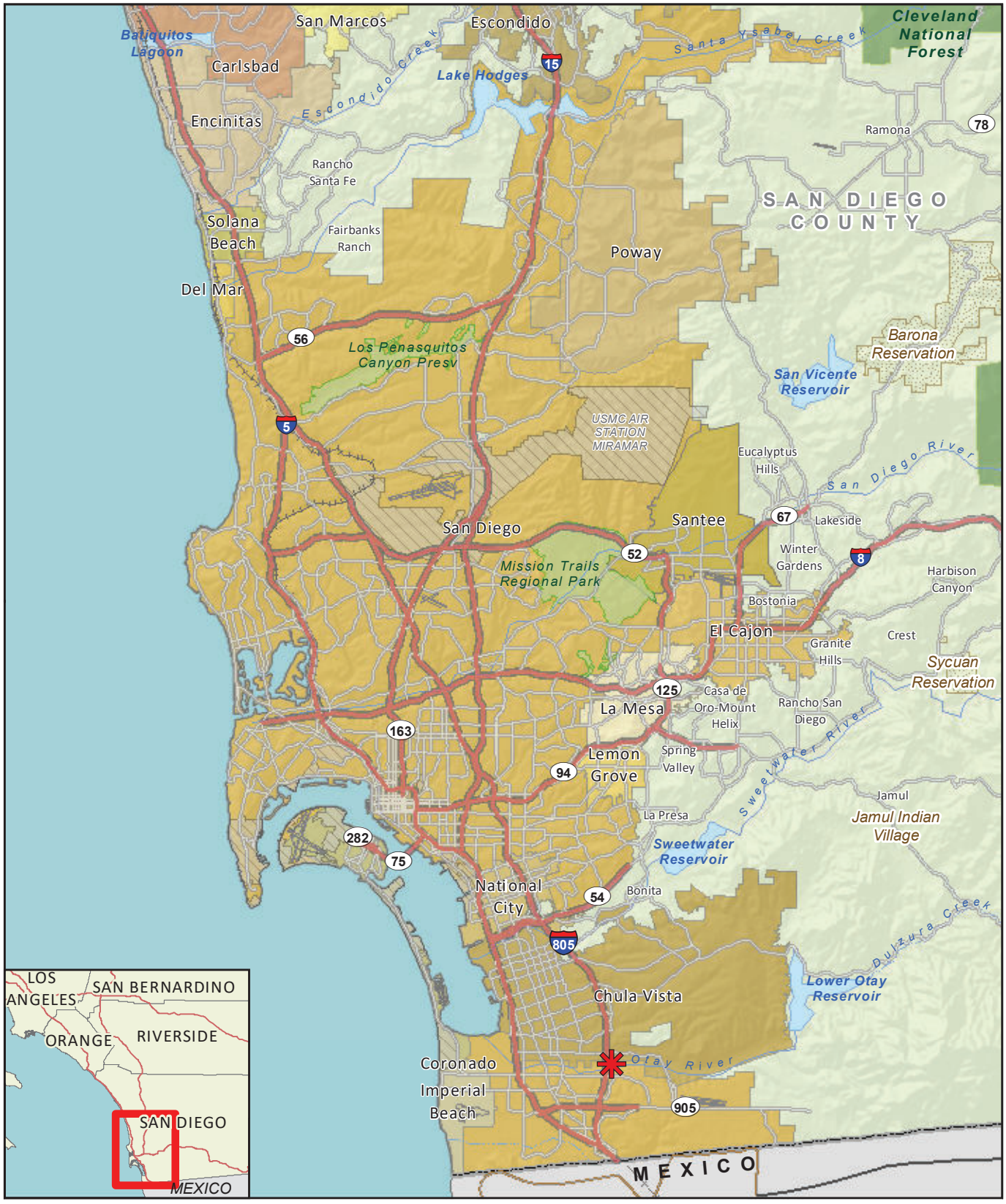
This Biological Resources Technical Report provides an analysis of potential impacts on biological resources associated with the proposed Nakano project (project) located in the City of Chula Vista and the City of San Diego, California. The project site (i.e., Assessor's Parcel Number [APN] 624-071-0200) is currently within the City of Chula Vista, with off-site areas in both the City of Chula Vista and City of San Diego. The project proposes two scenarios: the Annexation Scenario, with the project site being annexed into the City of San Diego, and the No Annexation Scenario, with the project site remaining in the City of Chula Vista. The off-site areas would remain in their respective jurisdictions in both scenarios. Because the project includes both the Annexation Scenario and No Annexation Scenario, this report addresses consistency with the requirements of both the City of San Diego and City of Chula Vista.

Biological surveys of the property were conducted in 2020 and 2022 to inventory the biological resources present, determine the occurrence potential for special status species, species considered "covered" under the City of Chula Vista and the City of San Diego Multiple Species Conservation Program (MSCP) Subarea Plans, and to document the jurisdictional area present within the project area. The methods, results of the surveys, project impacts, and avoidance and mitigation measures are discussed in accordance with the California Environmental Quality Act (CEQA), Clean Water Act (CWA), the City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003), the City of San Diego Biology Guidelines (2018a), City of San Diego MSCP Subarea Plan (City of San Diego 1997), and the California Fish and Game Code (CFGC).

1.1 Project Description and Location

The project is located east of Interstate 805 (I-805), northwest of Dennery Road, and south of the Otay River (Figure 1-1). The project is proposed within a the 23.77-acre APN 624-071-0200, as well as two off-site improvement areas. Grading and improvements are proposed on 21.69 acres of the project parcel, in addition to off-site improvements including 0.39 acre of remedial grading and trail improvements within the City of Chula Vista to the north of the project site, and 1.27 acres of grading for the project's access road and secondary emergency access road within the City of San Diego. The survey area includes the entire project parcel and off-site improvement areas, plus an approximately 100-foot survey buffer. The project area is within Sections 19 and 24 of Township 18 South, Range 1 and 2 West, of the Imperial Beach, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle.

The project includes two scenarios: the Annexation Scenario, with the project site being annexed into the City of San Diego, and the No Annexation Scenario, with the project site remaining in the City of Chula Vista. Both project scenarios propose the same development footprint. The project proposes a residential development with supporting recreational amenities and infrastructure on the approximately 23.77-acre project site. The proposed residential uses would consist of 215 multi-family residential dwelling units, including 61 detached condominiums, 84 duplexes, and 70 multi-family dwelling units. Development of up to 221 residential units could be supported on-site depending on the ultimate unit mix, but the project footprint would remain the same. Recreational amenities would include a local-serving park, a regional overlook park associated with the Otay Valley Regional Park, and a trail connection to the Otay Valley Regional Park.



Project Location

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FIGURE 1-1
Project Location

To provide access to the project site via Dennery Road, off-site access improvements would be required within APN 645-400-0500, located in the City of San Diego to the east of the project site. Secondary emergency access via Golden Sky Way would also require off-site access improvements east of the project site in the City of San Diego on APNs 645-400-0100 and 645-400-0300. In addition, off-site improvements would be required to the north of the project site in the City of Chula Vista on APN 624-071-0100. Off-site improvements would consist of remedial grading to stabilize the adjacent slope in addition to improvements to formalize an existing disturbed trail connection through placement of decomposed granite and installation of a peeler pole fence on one side of the trail.

1.2 Site Description

1.2.1 Land Use and Zoning

The project site is currently designated by the City of Chula Vista General Plan (City of Chula Vista 2020) as Open Space and is zoned by the City of Chula Vista as Agricultural Zone A-8. The off-site remedial grading area is also designated as Open Space but is zoned as Floodway Zone F1.

The off-site access improvement area is designated as Residential – Low Medium by the City of San Diego Otay Mesa Community Plan (City of San Diego 2014) and is zoned by the City of San Diego as RM-2-4 (City of San Diego 2019).

The project area is also identified as Open Space within the Otay Valley Regional Park Concept Plan (County of San Diego et al. 2014), although this plan is a conceptual plan and does not have jurisdiction over the project area.

The uses in the project site and off-site areas currently consist of vacant land, unpaved roads, and informal trails. The project site was used for agricultural use until 2000 and is heavily disturbed. Surrounding land uses include a vacant site and the Otay Valley River Park to the north, I-805 directly to the west, multi-family residential to the east and southeast, and Kaiser medical offices to the south.

1.2.2 Topography

The elevations in the project area range from approximately 100 feet above mean sea level (amsl) in the northwest of the project area near I-805 to approximately 200 feet amsl in the southeast corner of the off-site impact area along Dennery Road.

1.2.3 Soils

According to the U.S. Department of Agriculture's (USDA) Soil Survey (USDA 2020a), three soil types were mapped in the project area: Olivenhain cobbly loam, 9 to 30 percent slopes; Riverwash; and Salinas clay loam, 0 to 2 percent slopes. The Olivenhain series occurs within the southern portion of the project area and consists of well-drained, slow or medium runoff, with slow permeability. The Riverwash occurs in the northern portion of the project area and within the Otay River and consists of sandy, gravelly, or cobbly substrate with rapid permeability. Salinas series dominates the project area and consists of deep, well-drained soils that formed in alluvium weathered from sandstone and

shale, and it has moderately slow permeability. Olivenhain cobbly loam, 9 to 30 percent slopes, and Riverwash are considered hydric soils (USDA 2020b).

1.2.4 Hydrology

The project area is located in the San Diego Subbasin (HU8) within the Otay River watershed (HU10). More specifically, it is located within the Poggi Canyon–Otay River Subwatershed (HU12) of the watershed (Figure 1-2). The project area is located less than 300 feet south of the Otay River. The Otay River flows southwest to the San Diego Bay (i.e., the Pacific Ocean, a navigable water of the United States) in Chula Vista, California (Regional Water Quality Control Board [RWQCB] 1998).

There is one U.S. Geological Survey National Hydrography Dataset (NHD) line feature occurring within the off-site area providing access to Dennery Road (USGS 2020; see Figure 1-2). The NHD line corresponds to a pipeline or aqueduct at or near the surface. The Otay River corridor to the north of the project area contains an NHD stream/river line and lake/pond water bodies (USGS 2020; see Figure 1-2).

1.3 Regulatory Context

1.3.1 Federal

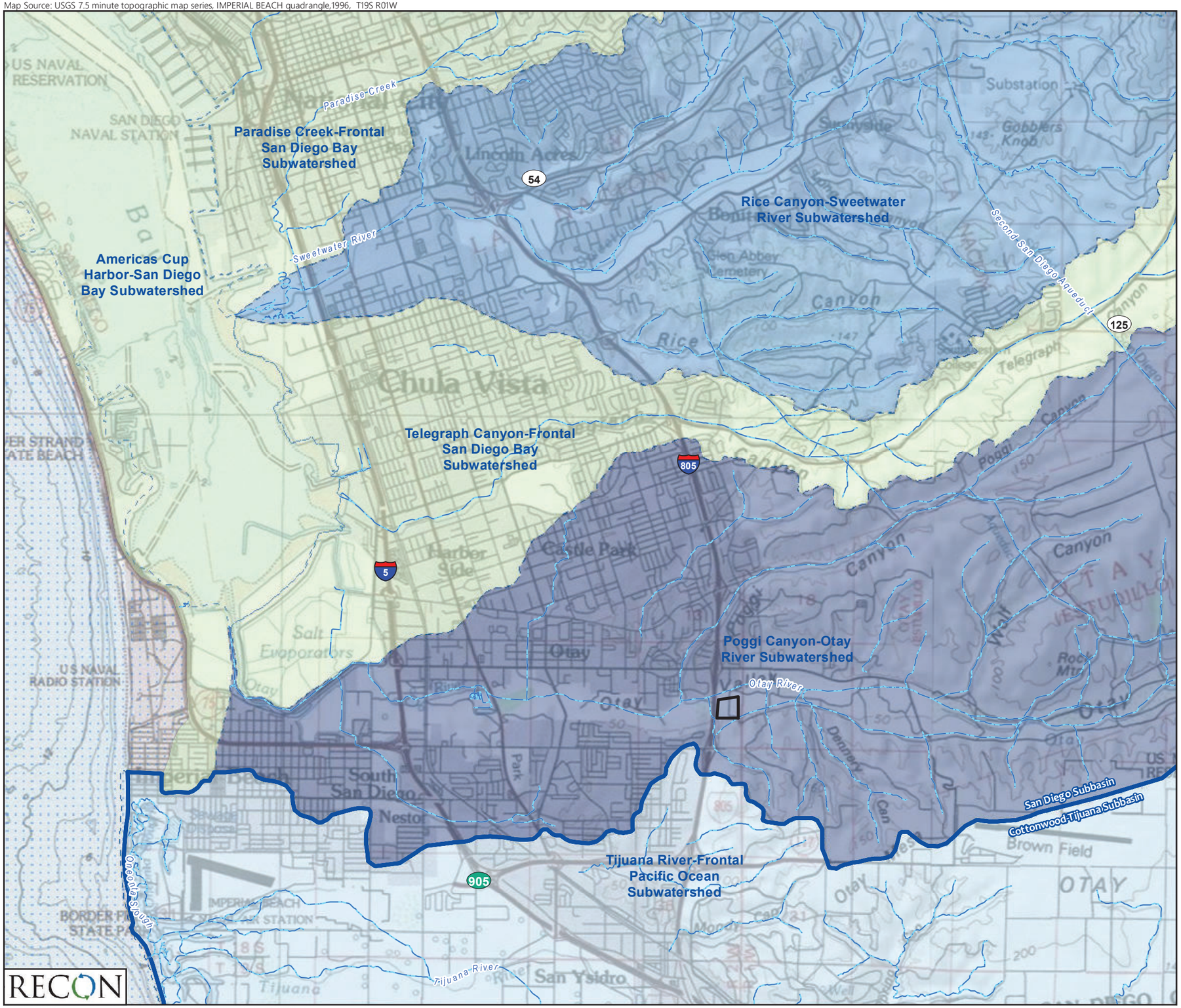
1.3.1.1 Federal Endangered Species Act

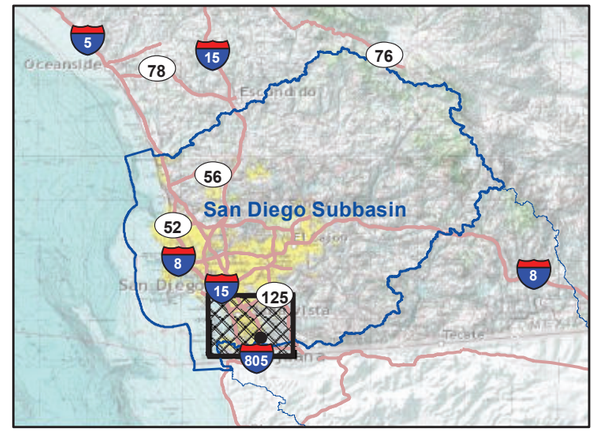
The federal Endangered Species Act (FESA) (16 United States Code 1531 et seq.) is implemented by the U.S. Fish and Wildlife Service (USFWS) through a program that identifies and provides for protection of various species of fish, wildlife, and plants deemed to be in danger of or threatened with extinction. As part of this regulatory act, the FESA provides for designation of critical habitat, defined in FESA Section 3(5)(A) as specific areas within the geographical range occupied by a species where physical or biological features "essential to the conservation of the species" are found and that "may require special management considerations or protection." Critical habitat may also include areas outside the current geographical area occupied by the species that are nonetheless "essential for the conservation of the species." There is no USFWS critical habitat within the project area (USFWS 2020). The closest USFWS critical habitat is for Otay tarplant (*Deinandra conjugens*) and is located approximately 0.75 mile northeast and 1.05 miles east of the project area (Figure 1-3).

1.3.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) prohibits the intentional take of any migratory bird or any part, nest, or eggs of any migratory bird. Under the MBTA, "take" is defined as pursuing, hunting, shooting, capturing, collecting, or killing, or attempting to do so (16 United States Code 703 et seq.). On October 4, 2021, the USFWS published a revision of interpretation of the MBTA. With the final rule, USFWS has effectively reinstated its position that "incidental take" (e.g., pursuing, hunting, shooting, capturing, collecting, harming, killing) that results from, but is not the purpose of, carrying out otherwise lawful activity is prohibited by the MBTA. The project is designed to comply with MBTA, which precludes direct impacts to nesting birds and raptors.

Map Source: USGS 7.5 minute topographic map series, IMPERIAL BEACH quadrangle,1996, T19S R01W





- Project Boundary
- Stream/River
- Subbasin (HU8)
- Subwatershed (HU12)

Watershed (HU10)

- Lower Sweetwater River
- Mission Beach-Frontal Pacific Ocean
- Otay River
- San Diego Bay
- Tecate Creek
- Tijuana River-Frontal Pacific Ocean

0 Feet 5,000

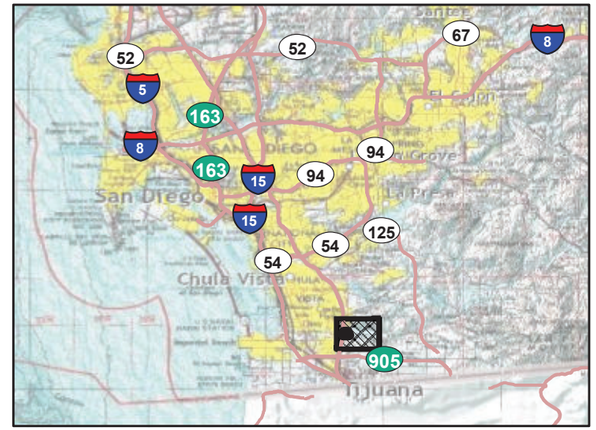
FIGURE 1-2
Hydrologic Setting

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Image Source: NearMap (flown January 2023)





Project Boundary

USFWS Critical Habitat

0 Feet 1,000

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FIGURE 1-3
USFWS Designated Critical Habitat

1.3.1.3 Clean Water Act

Pursuant to Section 404 of the CWA, the U.S. Army Corps of Engineers (USACE) regulates the discharge of dredged and/or fill material into "waters of the United States." The currently accepted regulations defining waters of the U.S. follow the September 8, 2023, publishment of the final rule: *Revised Definition of "Waters of the U.S.", Conforming*. The agencies' definition of "waters of the United States" provides jurisdiction over waterbodies that Congress intended to protect under the CWA, including traditional navigable waters (e.g., certain large rivers and lakes), territorial seas, and interstate waters. Notably, this new rule provides a new interpretation of the term "adjacent" whereas wetlands must contain a surface hydrologic connection to other waters of the U.S. to be considered adjacent waters of the U.S. and eliminates the applicability of the significant nexus standard for "non-relatively permanent waters."

1.3.2 State

1.3.2.1 California Endangered Species Act

The California Department of Fish and Wildlife (CDFW) administers the California Endangered Species Act (CESA) (CFGC Section 2050 et seq.), which prohibits the take of plant and animal species designated by the California Fish and Game Commission as endangered or threatened in California. Under CESA Section 86, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." CESA Section 2053 stipulates that state agencies may not approve projects that will "jeopardize the continued existence of any endangered species or threatened species or result in the destruction or adverse modification of habitat essential to the continued existence of those species, if there are reasonable and prudent alternatives available consistent with conserving the species or its habitat which would prevent jeopardy."

1.3.2.2 California Fish and Game Code

The CFGC regulates the taking or possession of birds, mammals, fish, amphibians, and reptiles, as well as natural resources such as wetlands and waters of the State. It includes the CESA (Sections 2050-2115) and Streambed Alteration Agreement regulations (Sections 1600-1616), as well as provisions for legal hunting and fishing, and tribal agreements for activities involving take of native wildlife. The CFGC also includes protection of birds (Sections 3500 et seq.) and the Native Plant Protection Act (Sections 1900-1913), which directed CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State."

Pursuant to Section 1602 of the CFGC, the 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 Streambed Alteration Agreement (CFGC Section 1602 et seq.) is required for impacts on jurisdictional resources, including streambeds and associated riparian habitat.

In addition, the CDFW affords protection over the destruction of nests or eggs of native bird species (CFGC Section 3503), and it states that no birds in the orders of Falconiformes or Strigiformes (birds of prey) can be taken, possessed, or destroyed (CFGC Section 3503.5). The project is designed to comply with Sections 3503 and 3503.3 which precludes direct impacts to nesting birds and raptors.

1.3.2.3 Porter–Cologne Water Quality Control Act

The Porter–Cologne Water Quality Control Act (Porter–Cologne Act) protects water quality and the beneficial uses of water. It applies to surface water and groundwater. Under this law, the State Water Resources Control Board develops statewide water quality plans, and the RWQCBs develop regional basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of statewide plans and basin plans. Waters regulated under the Porter–Cologne Act include isolated waters that are not regulated by USACE. Developments with impacts on jurisdictional waters must demonstrate compliance with the goals of the Porter–Cologne Act by developing stormwater pollution prevention plans, standard urban stormwater mitigation plans, and other measures to obtain a CWA Section 401 certification for waters of the U.S. and Waste Discharge Requirements for waters of the State.

1.3.2.4 California Environmental Quality Act

CEQA (California Public Resources Code, Section 21000 et seq.) and the CEQA Guidelines (14 California Code of Regulations [CCR] 15000 et seq.) require identification of a project's potentially significant impacts on biological resources and feasible mitigation measures and alternatives that could avoid or reduce significant impacts. CEQA Guidelines Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors" (14 CCR 15000 et seq.). A rare animal or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not currently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c). CEQA also requires identification of a project's potentially significant impacts on riparian habitats (such as wetlands, bays, estuaries, and marshes) and other sensitive natural communities, including habitats occupied by endangered, rare, and threatened species.

1.3.3 Regional

1.3.3.1 MSCP Subregional Plan

The municipalities of southwestern San Diego County collaborated in producing the MSCP Subregional Plan (City of San Diego 1998). The MSCP Subregional Plan is implemented through individual Subarea Plans adopted by each jurisdiction in order to receive take authorization for impacts to covered species and habitats. The MSCP serves as a habitat conservation plan pursuant to FESA Section 10(a)(1)(B), as well as a Natural Communities Conservation Plan under the Natural Communities Conservation Planning Act of 2001. The MSCP, as implemented through the Subarea Plans, allows the participating jurisdictions to authorize take of plant and wildlife species identified within the plan area. USFWS and CDFW, herein referred to as the Wildlife Agencies, have authority

to regulate the take of threatened, endangered, and rare species. Under the MSCP, the Wildlife Agencies have granted take authorization to the local jurisdictions, including the City of San Diego and City of Chula Vista, for otherwise lawful actions, such as public and private development that may incidentally take or harm individual species or their habitat outside the designated preserve areas, in exchange for the assembly and management of a coordinated MSCP Preserve. Both the City of Chula Vista and City of San Diego are participants in the San Diego MSCP through their respective Subarea Plans, which are described further below.

The MSCP Subregional Plan established a regional preserve system designed to conserve large blocks of interconnected habitat having high biological value that are delineated in Multi-Habitat Planning Areas (MHPAs). To provide a framework for the establishment of MHPAs through Subarea Plans, the MSCP Subregional Plan identified Biological Core Areas and habitat linkages containing high concentrations of sensitive biological resources. As stated in Section 2.2 of the MSCP Subregional Plan (City of San Diego 1998):

> The core and linkages map was developed as an analytical tool to assist in testing preserve design criteria and levels of species conservation. It is not a regulatory map …While the entire acreage within a core area may not be important for preservation, the core and linkage configuration assists in visualizing a framework for a regional preserve network. Jurisdictions and other agencies prepared subarea plans with specific preserve boundaries by maximizing inclusion of unfragmented core resource areas and linkages in their preserve designs, given other parameters and objectives … Although this map was used to identify important biological areas and linkages, the habitat evaluation map is not intended to replace site-specific field survey data and evaluations.

The project area is located within the MSCP Subregional Plan Biological Core Area 4 and Habitat Linkage M (County of San Diego 1998) (Figure 1-4). However, neither of these areas, where they overlap the project area, were included within the City of Chula Vista or City of San Diego MSCP Subarea Plan's MHPA boundaries.

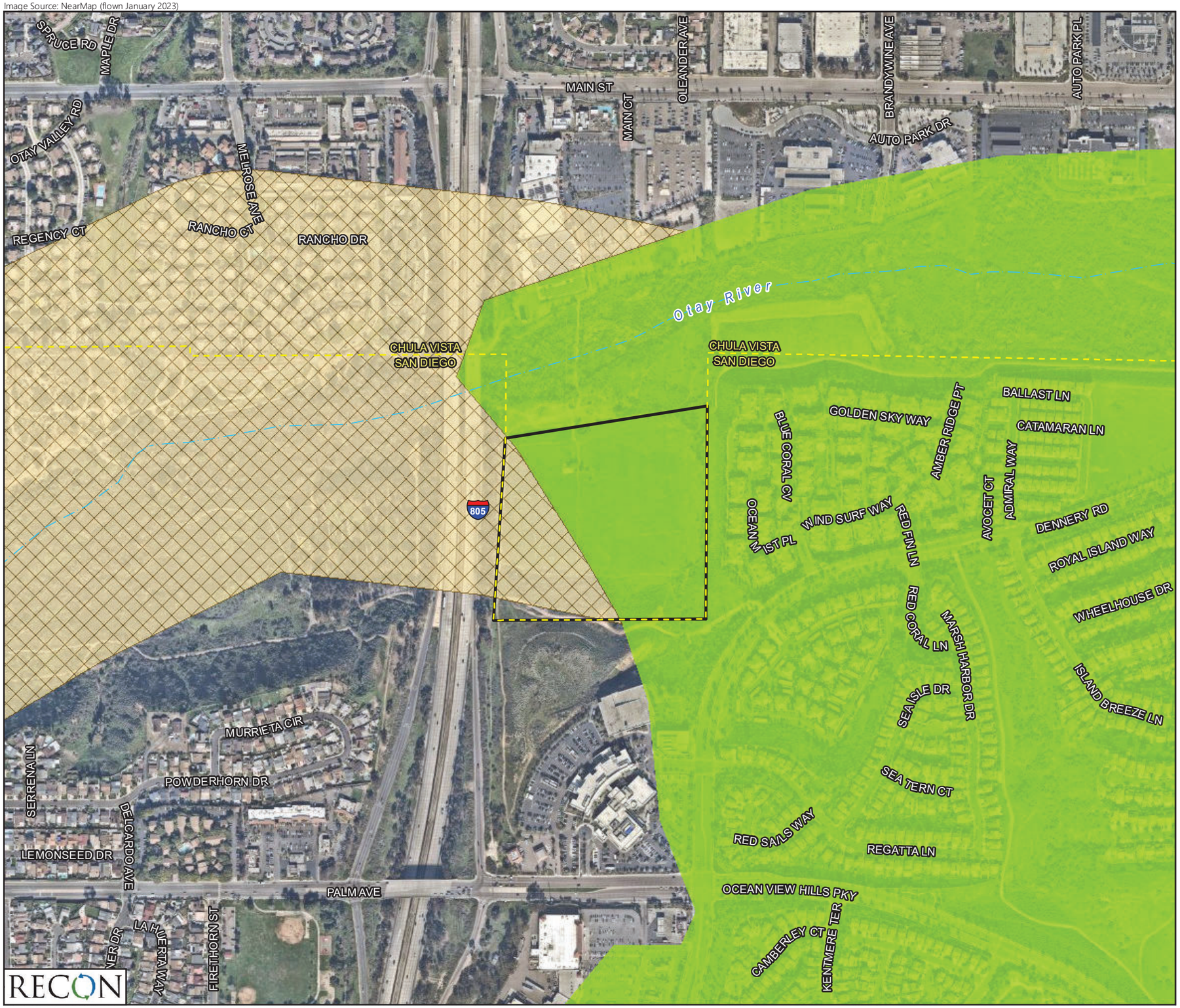
1.3.4 Local

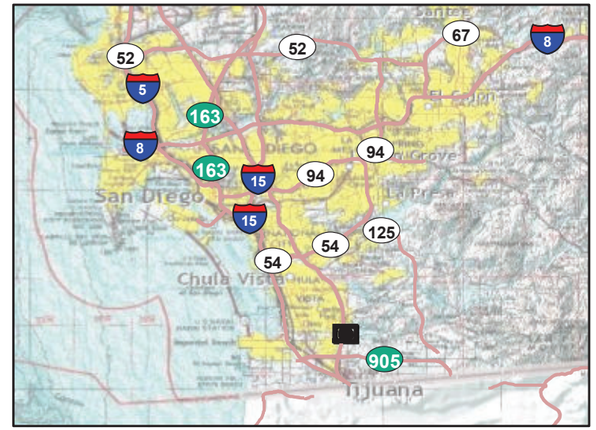
1.3.4.1 City of Chula Vista

a. Chula Vista MSCP Subarea Plan

The MSCP is implemented in Chula Vista through the City of Chula Vista's MSCP Subarea Plan (City of Chula Vista 2003). Within the City of Chula Vista Subarea Plan, the project area is designated as "Development Area Outside Covered Projects" (i.e., not designated a preserve or conservation area) and is not located immediately adjacent to any 75% or 100% Conservation Areas (Figure 1-5). The closest conservation area (75 percent) is located approximately 197 feet north of the project area within the Otay River (see Figure 1-5). As defined by the City of Chula Vista Subarea Plan, projects within the Development Area Outside Covered Projects planning area shall adhere to the City of Chula Vista's Habitat Loss and Incidental Take (HLIT) Ordinance (City of Chula Vista 2022).

Image Source: NearMap (flown January 2023)





Project Boundary

City Limit

MSCP Subregional Plan
Habitat Linkages and Biological Core Areas

Biological Core Area 4

Biological Linkage M

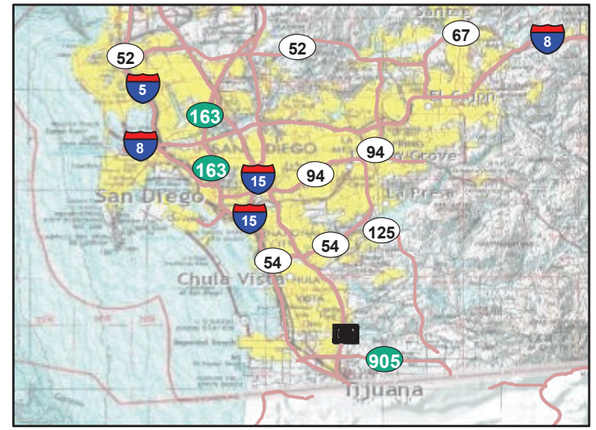
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FIGURE 1-4
MSCP Subregional Plan
Habitat Linkages and Biological Core Areas

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Image Source: NearMap (flown January 2023)





Project Boundary
City Limit
Project Impacts

City of San Diego MSCP Subarea Plan
City of San Diego MHPA

City of Chula Vista MSCP Subarea Plan
75% Conservation Area - Habitat Preserve
100% Conservation Area - Habitat Preserve

0 Feet 500

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FIGURE 1-5
City of San Diego MHPA and
City of Chula Vista Conservation Areas

b. Habitat Loss and Incidental Take Ordinance

In compliance with the MSCP Subregional Plan and the Subarea Plan, the City of Chula Vista established development standards in the HLIT Ordinance (HLIT), as a condition of issuance of take authorization by the Wildlife Agencies. The HLIT is consistent with the conservation and mitigation goals of the 1998 MSCP Subregional Plan and the City of Chula Vista MSCP Subarea Plan. Furthermore, the HLIT provides standards for development, identifies specific impact thresholds for special-status resources, and defines the mitigation requirements for impacts to native and some non-native communities (e.g., non-native grassland). HLIT Ordinance findings are presented in Attachment 1.

c. Narrow Endemic Species

The HLIT provides for the protection of narrow endemic species and outlines specific impact avoidance/ minimization requirements. Projects sited within Development Areas Outside Covered Projects shall avoid impacts to narrow endemic species to the maximum extent practicable and where unavoidable, shall be limited to 20 percent of the species population as approved by the City of Chula Vista, USFWS, and CDFW. If greater than 20 percent population impacts to narrow endemic species are anticipated as a result of the project, equivalency findings shall be prepared and approved prior to project approval.

d. Wetlands Protection

In accordance with the City of Chula Vista MSCP Subarea Plan and HLIT Ordinance, development projects that contain wetlands are required to demonstrate that impacts to wetlands have been avoided to the greatest extent practicable and, where impacts are nonetheless proposed, that such impacts have been minimized. For unavoidable impacts to wetlands, the mitigation ratio will be in accordance with the wetlands mitigation ratios identified in the City of Chula Vista MSCP Subarea Plan and impacts will be subject to no-net-loss wetland policies. The wetlands mitigation ratios provide a standard for each habitat type but may be adjusted depending on both the functions and values of the impacted wetlands and the wetlands mitigation proposed by the project.

1.3.4.2 City of San Diego

a. City of San Diego MSCP Subarea Plan

The MSCP is implemented in the City of San Diego through the City of San Diego's MSCP Subarea Plan. The City of San Diego's MSCP Subarea Plan identifies lands designated as MHPA, which is a "hard-line" preserve developed by the City of San Diego in cooperation with the wildlife agencies, developers, property owners, and various environmental groups. Within the MHPA, biological core resource areas and corridors targeted for conservation are identified and discussed, in which development restrictions may occur (City of San Diego 1997). The project area, with the exception of the off-site access area located within the City of San Diego, is located outside the City of San Diego Subarea Plan (see Figure 1-1). The project area is located outside the nearest MHPA, which is approximately 180 feet west of the project area, across I-805 (see Figure 1-5).

b. Environmentally Sensitive Lands Regulations

Environmentally Sensitive Lands (ESL) include sensitive biological resources, steep hillsides, coastal beaches, sensitive coastal bluffs and 100-year floodplains (City of San Diego 2022). Mitigation requirements for sensitive biological resources follow the requirements of the City of San Diego's Biology Guidelines (2018a) as outlined in the City of San Diego's Municipal Code ESL Regulations (Chapter 14, Article 3, Division 1). Impacts to biological resources within and outside the MHPA must comply with the ESL Regulations, which also serve as standards for the determination of biological impacts and mitigation under the CEQA in the City of San Diego.

The purpose of the ESL Regulations is to, "protect, preserve and, where damaged, restore the ESL of San Diego and the viability of the species supported by those lands." The regulations applicable to the proposed project and discussed in this report require development avoid impacts to certain sensitive biological resources as much as possible including but not limited to MHPA lands; wetlands and vernal pools in naturally occurring complexes; federal and state listed, non-MSCP Covered Species; and MSCP Narrow Endemic species. Furthermore, the ESL Regulations state that wetlands impacts should be avoided, and unavoidable impacts should be minimized to the maximum extent practicable. Where impacts are unavoidable, deviation findings must be made in accordance with Section 143.0150 of the City of San Diego Municipal Code. In addition to protecting wetlands, the ESL Regulations require that a buffer be maintained around wetlands, as appropriate, to protect wetland-associated functions and values.

c. City of San Diego Wetlands Definition

The extent of City of San Diego wetland jurisdiction is determined based on the definition of "wetland" provided in the Land Development Code Section 113.0103 under the ESL Regulations (Section 143.0141[b]), which state the following:

> "Wetlands" are defined as areas which are characterized by any of the following conditions:
>
> > All areas persistently or periodically containing naturally occurring wetland vegetation communities characteristically dominated by hydrophytic vegetation, including but not limited to salt marsh, brackish marsh, freshwater marsh, riparian forest, oak riparian forest, riparian woodlands, riparian scrub, and vernal pools;
> >
> > Areas that have hydric soils or wetland hydrology and lack naturally occurring wetland vegetation communities because human activities have removed the historic wetland vegetation or catastrophic or recurring natural events or processes have acted to preclude the establishment of wetland vegetation as in the case of salt pannes and mudflats;
> >
> > Areas lacking wetland vegetation communities, hydric soils and wetland hydrology due to non-permitted filling of previously existing wetlands;
> >
> > Areas mapped as wetlands on Map No. C-713 as shown in Chapter 13, Article 2, Division 6 (Sensitive Coastal Overlay Zone).

The City of San Diego uses the criteria listed in Section 320.4(b)(2) of the USACE General Regulatory Policies (33 CFR 320–330) to apply an appropriate buffer around wetlands that serves to protect the function and value of the wetland. According to the City of San Diego's Biology Guidelines, a wetland buffer is an area surrounding a wetland that helps protect the function and value of the adjacent wetland by reducing physical disturbance; provides a transition zone where one habitat phases into another; and acts to slow floodwaters for flood and erosion control, sediment filtration, water purification, and groundwater recharge (City of San Diego 2018a). The width of the buffer is determined by factors such as type and size of development, sensitivity of the wetland resource to edge effects, topography, and the need for upland transition (City of San Diego 2018a). There are no set buffer widths required for wetlands delineated outside the Coastal Zone.

d. City of San Diego Biology Guidelines

The City of San Diego's Biology Guidelines (2018a) presented in the Land Development Manual have been developed "to aid in the implementation and interpretation of the Environmentally Sensitive Lands Regulations (ESL), San Diego Land Development Code, Chapter 14, Division 1, Section 143.0101 et seq., and the Open Space Residential (OR-1-2) Zone, Chapter 13, Division 2, Section 131.0201 et seq." (City of San Diego 2018a). The Biology Guidelines also provide standards for the determination of impact and mitigation under CEQA and the California Coastal Act. Sensitive biological resources, as defined by the ESL Regulations, include lands within the MHPA as well as other lands outside the MHPA that contain wetlands; vegetation communities classifiable as Tier I, II, IIIA, or IIIB; habitat for rare, endangered, or threatened species; or narrow endemic species. The most sensitive habitats are classified as Tier I, with the least sensitive classified as Tier IV, and varying mitigation ratios and requirements that mitigation be in tier or in kind are based on the sensitivity of the habitat being affected.

In addition, the location of impact inside or outside the City of San Diego's MHPA determines where and how much mitigation is required, with the highest ratios being required for mitigation outside the MHPA when project impacts occur within the MHPA (City of San Diego 2018a). Habitat mitigation requirements, along with seasonal grading restrictions, provide protections for sensitive species, with additional species-specific mitigation required for significant impacts to narrow endemic species. Limitations on development in the MHPA also protect wildlife movement corridors (e.g., linear areas of the MHPA less than 1,000 feet wide) (City of San Diego 2018a).

The project site contains wetlands and Tier II and IIB habitat, as well as species addressed in the City of San Diego Biology Guidelines. The project site is not located in the Coastal Zone.

2.0 Methods and Survey Limitations

Data regarding biological resources present within the project area were obtained through a review of pertinent literature and field reconnaissance, both of which are described in detail in this section. Survey areas were determined based on suitable habitat for the resource for which the survey was conducted.

2.1 Literature Review

The following data sources were reviewed to assist with the biological resources analysis:

- Draft Biological Resources Technical Report for the Nakano Property (Dudek 2022)
- Nakano Environmental Constraints Analysis Report (RECON 2017)
- Biological Technical Report and Wetland Delineation Report for the Nakano Property (RECON 2011)
- U.S. Department of Agriculture Web Soil Survey (USDA 2020a, 2020b)
- CDFW California Natural Diversity Database (CNDDB) – Special Animals List (CDFW 2022a)
- CDFW CNDDB – RareFind, Version 5 (CDFW 2020)
- The Calflora Database (Calflora 2020)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (CNPS 2020)
- Consortium of California Herbaria vascular plant data (2020)
- City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003)
- City of San Diego MSCP Subarea Plan (City of San Diego 1997)
- City of San Diego Municipal Code, Land Development Code—Biology Guidelines (City of San Diego 2018a)
- USFWS Species Occurrence Data (USFWS 2020)
- San Diego Geographic Information Source database (2020)

2.2 Field Reconnaissance

Biological field surveys for the project were initially conducted in 2020 and included vegetation and land cover mapping, habitat quality assessment, a jurisdictional delineation, rare plant surveys, and protocol surveys for coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), and southwestern willow flycatcher (*Empidonax traillii extimus*). In 2022, a general biological survey was conducted to verify the habitat conditions from the 2020 surveys and a jurisdictional delineation was also conducted to map the current extent of aquatic resources within the project area. Rare plant surveys were also updated in spring 2022 to verify the current extent of rare plant populations within the project area. Based on the habitat conditions noted on-site during the biological verification survey, the results of the 2020 protocol surveys for coastal California gnatcatcher, least Bell's vireo, and southwestern willow flycatcher were determined to be valid, as discussed in further detail in Sections 2.2.4.2 and 2.2.4.3. Thus, no additional protocol surveys for these species were conducted.

Table 1 lists the survey dates, times, surveying biologists, and weather conditions during the survey. All biological surveys were conducted in accordance with the City of San Diego's Guidelines for Conducting Biological Surveys (City of San Diego 2018a).

The surveys were performed under favorable survey conditions to detect most plant and animal species present and were conducted on foot to ensure 100 percent visual coverage of the site. The survey area incorporated the project area and a surrounding 100-foot buffer. Details regarding specific survey methodologies are provided in the sections that follow under each resource (i.e., flora, fauna, wetlands, and special-status species).

Table 1 Schedule of Surveys				
Date	Time	Personnel	Purpose	Conditions
Vegetation Mapping, Jurisdictional Delineation, and Rare Plant Surveys				
02/25/2020	09:29 a.m.–02:50 p.m.	Erin Bergman[1] Callie Amoaku[1]	Vegetation Mapping, Jurisdictional Delineation	68°F–75°F; 0% cc; 0–1 mph wind
05/04/2020	6:30 a.m.–1:18 p.m.	Erin Bergman[1]	Rare Plant Survey Pass 1	57°F–78°F; 30%–70% cc; 0–2 mph wind
06/22/2020	9:00 a.m.–3:03 p.m.	Olivia Koziel[1]	Rare Plant Survey Pass 2	66°F–72°F; 20%–100% cc; 1–4 mph wind
3/24/2022	9:30 a.m.–1:00 p.m.	Cailin Lyons[2] Gerry Scheid[2]	Biological Verification Survey & Habitat Assessment, Jurisdictional Delineation	68°F–73°F; 0% cc; 0–1 mph wind
5/20/2022	7:30 a.m.–11:30 a.m.	Jason Sundberg[2]	Rare Plant and Botanical Surveys	64°F–66°F; 100% cc; 1–6 mph wind
9/7/2022	8:30 a.m.–10:00 a.m.	Cailin Lyons[2] Gerry Scheid[2]	Biological Survey (off-site trail)	72°F–78°F; 0% cc; 0–2 mph wind
6/30/2023	10:30 a.m.-11:30 a.m.	Gerry Scheid[2]	Jurisdictional Delineation Update (2023 Ordinary High Water Mark Forms)	71°F–72°F; 0% cc; 0–2 mph wind
Protocol Coastal California Gnatcatcher Surveys				
02/20/2020	8:29 a.m.–11:53 p.m.	Erin Bergman[1]	CAGN Protocol Survey Pass 1	60°F–65°F; 0%–50% cc; 0–3 mph winds
02/27/2020	7:58 a.m.–11:11 p.m.	Erin Bergman[1]	CAGN Protocol Survey Pass 2	60°F–76°F; 0%–25% cc; 0–2 mph winds
03/05/2020	6:43 a.m.–11:43 p.m.	Erin Bergman[1]	CAGN Protocol Survey Pass 3	58°F–74°F; 0%–75% cc; 0–3 mph winds
Protocol Least Bell's Vireo and Southwestern Willow Flycatcher Surveys				
05/22/2020	8:10 a.m.–10:00 a.m.	Brock Ortega[1]	LBVI Protocol Survey Pass 1 / SWFL Protocol Survey Pass 1	55°F–61°F; 60%–70% cc; 3 mph wind
06/01/2020	6:10 a.m.–8:00 a.m.	Brock Ortega[1]	LBVI Protocol Survey Pass 2 / SWFL Protocol Survey Pass 2	60°F–62°F; 80%–100% cc; 0–5 mph wind
06/13/2020	7:30 a.m.–9:30 a.m.	Shana Carey[1]	LVBI Protocol Survey Pass 3	64°F–69°F; 0% cc; 1–5 mph wind
06/21/2020	6:30 a.m.–8:10 a.m.	Brock Ortega[1]	LBVI Protocol Survey Pass 4 / SWFL Protocol Survey Pass 3	63°F–65°F; 5%–100% cc; 0–3 mph wind
07/01/2020	5:50 a.m.–8:00 a.m.	Brock Ortega[1]	LBVI Protocol Survey Pass 5 / SWFL Protocol Survey Pass 4	60°F–62°F; 100% cc; 0–3 mph wind
07/10/2020	6:10 a.m.–8:00 a.m.	Brock Ortega[1]	LBVI Protocol Survey Pass 6 / SWFL Protocol Survey Pass 5	65°F; 50%–100% cc; 0–3 mph wind
07/21/2020	7:30 a.m.–9:00 a.m.	Brock Ortega[1]	LBVI Protocol Survey Pass 7	65°F–68°F; 0%–10% cc; 0–3 mph wind
07/31/2020	7:30 a.m.– 9:30 a.m.	Shana Carey[1]	LBVI Protocol Survey Pass 8	68°F–75°F; 0% cc; 1–4 mph wind

°F = degrees Fahrenheit; cc = cloud cover; mph = miles per hour; CAGN = coastal California gnatcatcher; LBVI = least Bell's vireo; SWFL = southwestern willow flycatcher.
[1]Dudek
[2]RECON Environmental

2.2.1 Vegetation Mapping

Vegetation communities and land cover types within the survey area were mapped in the field directly onto a 100-foot-scale (1 inch = 100 feet), aerial-photograph-based field map with overlay of the project survey area. Following completion of the fieldwork, all vegetation polygons were transferred to a topographic base and digitized using ArcGIS, and a geographic information system (GIS) coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover present within the project area was determined.

Pursuant to the City of San Diego's Biology Guidelines (City of San Diego 2018a), the vegetation community and land cover mapping follows the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008), which is based on the Preliminary Descriptions of the Terrestrial Natural Communities of California (Holland 1986). These habitats were then cross-walked to their corresponding community in the City of San Diego's Biology Guidelines (City of San Diego 2018a). Areas within the project area supporting less than 30 percent native plant species cover were mapped as disturbed land and areas supporting at least 20% native plant species, but less than 50 percent native cover, were mapped as a disturbed native vegetation community (e.g., disturbed coastal sage scrub).

2.2.2 Flora

The plant species encountered during the field survey were identified and recorded directly into a field notebook. Plant species that could not be identified immediately were brought into the laboratory for further investigation. Latin and common names follow the *Checklist of the Vascular Plants of San Diego County 5th Edition* (Rebman and Simpson 2014). Where the scientific name listed in Rebman and Simpson (2014) differs from the name currently recognized by the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2020) or that listed in the CNPS Inventory of Rare and Endangered Plants (CNPS 2020), the synonym is included in brackets following the name listed in Rebman and Simpson (2014).

2.2.3 Fauna

Wildlife species detected during the field survey by sight, calls, tracks, scat, or other signs were recorded directly into a field notebook. Latin and common names of any animals detected follow Crother (2017) for reptiles and amphibians, American Ornithological Society (2018) for birds, Wilson and Reeder (2005) for mammals, and North American Butterfly Association (2016) or San Diego Natural History Museum (2002) for butterflies. In addition to species actually detected during the surveys, expected wildlife use of the project area was determined by known habitat preferences of local species and knowledge of their relative distributions in the area.

2.2.4 Special-Status Biological Resources

Searches of the CNPS 2020 online inventory database and CNDDB online inventory were conducted to assist in the determination of special-status plant and wildlife species potentially present within the project area (CDFW 2020; CNPS 2020). Specifically, both a one-quad search and a nine-quad

search were conducted. In addition to these state database searches, each of the species covered under the City of San Diego and City of Chula Vista MSCP Subarea Plans, including narrow endemic species, were individually evaluated in relation to the project area to assist in determining their level of potential to occur on-site.

Additionally, the potential for Crotch's bumble bee (*Bombus crotchii*) was evaluated based on guidance from CDFW. The habitat on-site was evaluated for Crotch's bumble bee based on the general biological and botanical surveys conducted between 2020 and 2022. During these surveys, a complete list of botanical resources, including potential host and nectar plants, were recorded. In addition, potential nesting resources were also evaluated. An updated records search of CNDDB was also conducted in 2023 to encompass data provided by the Bumble Bees of North America database contributed in 2022 (CDFW 2023a; Leif Richardson, pers. comm., July 27, 2023). Given that no Crotch's bumble bee records occur within five miles of the project site and that habitat quality is low for nesting, as discussed in Section 3.4.2.4, no nesting surveys were proposed. Foraging surveys are proposed prior to construction as further discussion in Section 6.1.3.1 and 6.2.3.1.

2.2.4.1 Special-Status Plant Species Surveys

Focused surveys for special-status plant species were conducted in May and June 2020 and updated in May 2022. The focused surveys were conducted at the appropriate phenological stage (blooming and fruiting) to detect and identify the target species. Reference checks of Otay tarplant populations were conducted at known populations in the vicinity to ensure spring visits were conducted during the optimal blooming period and during years with appropriate conditions. Surveys were conducted within suitable habitat areas within the project area. Field survey methods and mapping of rare plants generally conformed to California Native Plant Society Botanical Survey Guidelines (CNPS 2001), Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Natural Communities (CDFW 2009), and USFWS's General Rare Plant Survey Guidelines (Cypher 2002). Special-status plant observations were mapped in the field using a global positioning system receiver.

2.2.4.2 Protocol Coastal California Gnatcatcher Surveys

Protocol surveys for coastal California gnatcatcher were performed within the project area between February and March 2020 by coastal California gnatcatcher-permitted biologists. The surveys were conducted following USFWS's Coastal California Gnatcatcher (*Polioptila californica californica*) Presence/Absence Survey Protocol (USFWS 1997), using the breeding season survey methods. The USFWS guidelines specify that each area potentially supporting coastal California gnatcatchers be surveyed a minimum of three times at a minimum interval of seven days. The survey report is provided in Attachment 2. Additional surveys were not deemed necessary in 2022 as all suitable habitat on-site is considered occupied based on the 2020 survey results.

The biologists were provided with 100-scale (1 inch = 100 feet) aerial photographs of the study area overlaid with the vegetation and site boundaries to map any coastal California gnatcatcher individuals, pairs, nests, and family groups, if observed. Binoculars were used to aid in detecting and identifying birds and other wildlife species. Appropriate birding binoculars (8 millimeters × 42 millimeters power) were used by each permitted biologist to aid in detecting and identifying bird species. A recording

of vocalizations was used frequently to elicit a response from the species. The recording was played approximately every 50 to 100 feet, and when a coastal California gnatcatcher was detected, the playing of the recording was ceased to avoid harassment.

2.2.4.3 Protocol Least Bell's Vireo and Southwestern Willow Flycatcher Surveys

Protocol surveys for least Bell's vireo and southwestern willow flycatcher were performed within the project area between May and July 2020. Riparian habitat within the project area was surveyed eight times for least Bell's vireo and five times for southwestern willow flycatcher. The survey report is provided in Attachment 3. Additional surveys for least Bell's vireo were not deemed necessary in 2022 as all suitable habitat on-site is considered occupied based on the 2020 survey results. Furthermore, additional surveys for southwestern willow flycatcher were not deemed necessary in 2022 as the general biological survey confirmed that no suitable breeding habitat is present on-site.

Surveys for least Bell's vireo and southwestern willow flycatcher were conducted concurrently. Due to differences in detectability, surveys were conducted sequentially, with surveys for southwestern willow flycatcher first (i.e., first thing in the morning) and surveys for least Bell's vireo conducted immediately after. Additionally, for linear survey routes within a riparian corridor, southwestern willow flycatcher was surveyed from the starting point to the end, and least Bell's vireo was surveyed on the way back. All surveys consisted of slowly walking a methodical, meandering transect within and adjacent to all riparian habitat on-site. The perimeter was also surveyed. This route was arranged to cover all suitable habitat on-site. If observed, special-status wildlife observations were mapped in the field using the ESRI Collector mobile application to record location and population information. Binoculars were used to aid in detecting and identifying wildlife species.

The five surveys conducted for southwestern willow flycatcher followed the currently accepted protocol (Sogge et al. 2010), which states that a minimum of five survey visits is needed to evaluate a project's effects on southwestern willow flycatcher. The protocol recommends one survey between May 15 and 31, two surveys between June 1 and June 24, and two surveys between June 25 and July 17. Consistent with the protocol, surveys during the final period (June 25 and July 17) were separated by at least 5 days. A recording of southwestern willow flycatcher vocalizations was used, approximately every 50 to 100 feet within suitable habitat to induce southwestern willow flycatcher responses.

In compliance with the accepted Least Bell's Vireo Survey Guidelines (USFWS 2001), eight protocol surveys were conducted by qualified Dudek biologists within all riparian areas and any other potential least Bell's vireo habitats between May 22 and July 31, 2020 (see Table 1). The site visits were conducted at least 10 days apart to maximize the detection of early and late arrivals, females, non-vocal birds, and nesting pairs. Recordings of least Bell's vireo vocalizations were not used during the surveys. Surveys were conducted between dawn and 11:00 a.m. and were not conducted during periods of excessive or abnormal cold, heat, wind, rain, or other inclement weather.

2.2.5 Jurisdictional Aquatic Resource Delineation

A routine jurisdictional waters/wetland delineation, following the guidelines set forth by the USACE (1987, 2008), was performed by RECON biologist Gerry Scheid on March 24, 2022 to verify

previous mapping conducted by Dudek in 2020 and gather field data at potential jurisdictional waters in the survey area for the aquatic resources delineation report. Wetland waters were delineated using the USACE three-parameter method. Non-wetland water parameters were evaluated as part of the assessment of the presence of an Ordinary High Water Mark. Prior to conducting the delineation, aerial photographs and USGS topographic maps of the site were examined. Once on-site, the potential federal, state, City of San Diego, and City of Chula Vista jurisdictional areas were examined to determine the presence and extent of any jurisdictional waters. More details regarding the delineation survey can be found in the aquatic resources delineation report (Attachment 4).

2.3 Survey Limitations

Site visits were conducted during daylight hours. Surveys were conducted mostly during the daytime to maximize visibility for the detection of plants and most animals. Birds represent the largest component of the vertebrate fauna, and because they are active in the daytime, diurnal surveys maximize the number of observations of this portion of the fauna. Daytime surveys may result in fewer observations of animals that are more active at night, such as mammals. In addition, many species of reptiles and amphibians are nocturnal and/or secretive in their habits and are difficult to observe using standard meandering transects. To account for survey limitations, special-status wildlife species that could occur based on pertinent distribution and habitat preference literature and recorded off-site observations are analyzed herein based on their potential to occur.

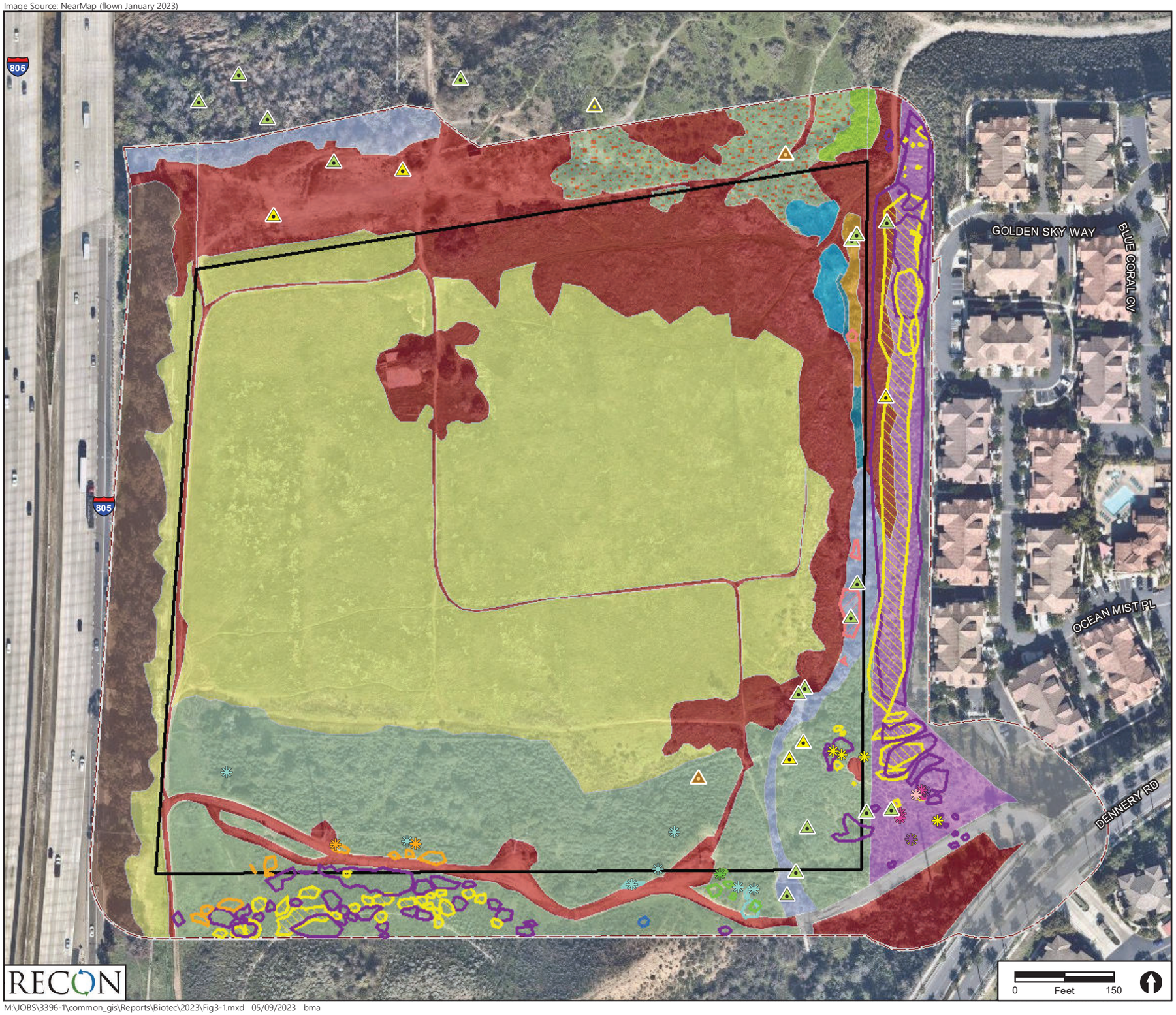
Focused surveys for potentially occurring special-status plants were conducted for the project area in two passes (i.e., spring and summer) to document rare plants that have different seasonal blooming periods. In addition, reference checks were performed at known Otay tarplant populations in the project vicinity to ensure that spring surveys were conducted during the optimal blooming period and during years with appropriate conditions.

3.0 Results of Surveys

3.1 Vegetation Communities and Land Cover Types

A total of eight vegetation communities and four land cover types were identified within the project area: Diegan coastal sage scrub, Diegan coastal sage scrub: *Baccharis*-dominated, non-native grassland, *Arundo*-dominated riparian, mule fat scrub, southern willow scrub, emergent wetland, disturbed wetland, disturbed habitat, eucalyptus woodland, and urban/developed (Table 2; Figure 3-1). Vegetation communities are classified according to each City's MSCP Subarea Plan and those considered sensitive are listed as wetlands, Tier I, Tier II, or Tier III/IIIB (City of San Diego 2018a; City of Chula Vista 2003). A brief description of each community and land cover type is also provided below and representative photographs are shown in Attachment 5.

Image Source: NearMap (flown January 2023)



Project Boundary

Survey Area

Sensitive Wildlife

- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Least Bell's Vireo (*Vireo bellii pusillus*)
- Yellow-breasted Chat (*Icteria virens*)
- Yellow Warbler (*Setophaga petechia*)

Sensitive Plants

- California Adolphia (*Adolphia californica*)
- Otay Tarplant (*Deinandra conjugens*)
- San Diego County Viguiera (*Bahiopsis lacniata*)
- San Diego Barrel Cactus (*Ferocactus viridescens*)
- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Ashy Spike-moss (*Selaginella cinerascens*)
- Small-flowered Microseris (*Microseris douglasii* ssp. *platycarpha*)
- San Diego Marsh-elder (*Iva hayesiana*)
- South Coast Saltscale (*Atriplex pacifica*)

Vegetation Communities

- Arundo-Dominated Riparian
- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub: Baccharis-dominated
- Disturbed Habitat
- Disturbed Wetland
- Emergent Wetland
- Eucalyptus Woodland
- Mule Fat Scrub
- Non-Native Grassland
- Ornamental
- Southern Willow Scrub
- Urban/Developed

RECON

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FIGURE 3-1
Biological Resources

Table 2
Vegetation Communities and Land Cover Types in the Project Area

Vegetation Community/Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	City of Chula Vista Subarea Plan Tier	City of San Diego Biological Guidelines Tier	Project Site (acres)	Off-Site Area – City of Chula Vista (acres)	Off-Site Area – City of San Diego (acres)	Total Project Area (acres)
Upland Vegetation Communities							
Diegan coastal sage scrub	Coastal sage scrub	II	II	4.49	—	2.06	6.55
Diegan coastal sage scrub: Baccharis-dominated	Coastal sage scrub	II	II	0.16	0.76	—	0.92
Non-native grassland	Non-native grassland	III	IIIB	13.96	0.11	0.71	14.78
Wetland Vegetation Communities							
Arundo-dominated riparian	Riparian scrub	Wetlands	Wetlands	—	0.09	0.03	0.12
Mule fat scrub	Riparian scrub	Wetlands	Wetlands	0.11	—	—	0.11
Southern willow scrub	Riparian scrub	Wetlands	Wetlands	0.31	0.35	0.16	0.82
Emergent wetland	Riparian scrub	Wetlands	Wetlands	0.18	—	—	0.18
Disturbed wetland	Disturbed wetlands	Wetlands	Wetlands	0.05	—	—	0.05
Land Covers							
Disturbed habitat	Disturbed land	IV	IV	4.51	2.05	1.57	8.13
Eucalyptus woodland	Eucalyptus woodland	IV	IV	—	—	1.80	1.80
Ornamental	Disturbed land	IV	IV	—	—	1.86	1.86
Urban/developed	Disturbed land	N/A	IV	—	—	1.53	1.53
Total				23.77	3.36	9.72	36.85

3.1.1 Diegan Coastal Sage Scrub

Diegan coastal sage scrub is a native vegetation community that, according to Oberbauer et al. (2008), is composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species—such as coastal sagebrush (*Artemisia californica*), California buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.)—with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*) and laurel sumac (*Malosma laurina*).

Diegan coastal sage scrub occupies a total of 6.55 acres within the project area (see Figure 3-1). This vegetation community occurs on the southern portion of the project area. The City of Chula Vista's MSCP Subarea Plan identifies coastal sage scrub as Tier II "uncommon uplands" (City of Chula Vista 2003). Coastal sage scrub is considered a Tier II habitat by the City of San Diego's Biology Guidelines (City of San Diego 2018a).

3.1.2 Diegan Coastal Sage Scrub: *Baccharis*-Dominated

Diegan coastal sage scrub: *Baccharis*-dominated is similar to Diegan coastal sage scrub except that it is dominated by *Baccharis* species (broom baccharis [*B. sarothroides*] and/or coyote brush [*B. pilularis*]) (Oberbauer et al. 2008). This community typically occurs on disturbed sites or those with nutrient-poor soils and is often found within other forms of Diegan coastal sage scrub and on upper

terraces of river valleys. This community is distributed along coastal and foothill areas in San Diego County.

Diegan coastal sage scrub: *Baccharis*-dominated occupies a total of 0.92 acres within the project area (see Figure 3-1). This vegetation community occurs on the northeastern portion of the project area. The City of Chula Vista's MSCP Subarea Plan identifies coastal sage scrub as Tier II "uncommon uplands" (City of Chula Vista 2003). Coastal sage scrub is considered a Tier II habitat by the City of San Diego's Biology Guidelines (City of San Diego 2018a).

3.1.3 Non-Native Grassland

Non-native grassland consists of dense to sparse cover of annual grasses with flowering culms between 0.5 to 3 feet in height (Oberbauer et al. 2008). In San Diego County the presence of wild oat (*Avena fatua*), bromes (*Bromus* spp.), stork's bills (*Erodium* spp.), and mustards (*Brassica* spp.) are common indicators. In some areas, depending on past disturbance and annual rainfall, annual forbs may be the dominant species; however, it is presumed that grasses will dominate.

Non-native grassland occupies a total of 14.78 acres within the project area (see Figure 3-1). This vegetation community is the most dominant community in the project area and occurs on the central portion of the project area. The City of Chula Vista's MSCP Subarea Plan identifies non-native grassland as Tier III "common uplands" (City of Chula Vista 2003). Non-native grassland is considered a Tier IIIB habitat by the City of San Diego's Biology Guidelines (City of San Diego 2018a).

3.1.4 *Arundo*-Dominated Riparian

The *Arundo*-dominated riparian vegetation community is composed of monotypic or nearly monotypic stands of giant reed (*Arundo donax*) that are fairly widespread in Southern California. Typically, it occurs on moist soils and in streambeds and may be related directly to soil disturbance or the introduction of propagules by grading or flooding. Mapped occurrences may include surrounding native trees. Giant reed often occupies jurisdictional wetlands.

The area mapped as *Arundo*-dominated riparian occupies 0.12 acre within the project area and occurs entirely within the 100-foot survey buffer (see Figure 3-1). The City of Chula Vista's MSCP Subarea Plan identifies *Arundo*-dominated riparian (disturbed wetland) as "wetlands" (City of Chula Vista 2003). *Arundo*-dominated riparian is considered a wetland (riparian scrub) per the City of San Diego's Biology Guidelines (City of San Diego 2018a).

3.1.5 Southern Willow Scrub

Southern willow scrub is a dense, broad-leafed, winter-deciduous riparian thicket dominated by several willow species (*Salix* spp.), with scattered emergent western cottonwood (*Populus fremontii* ssp. *fremontii*) and western sycamore (*Platanus racemosa*). This community was formerly extensive along the major rivers of coastal Southern California but is now much reduced (Oberbauer et al. 2008).

The areas mapped as southern willow scrub occupy 0.82 acre within the project area and occur along the eastern boundary of the project area (see Figure 3-1). The City of Chula Vista's MSCP Subarea Plan identifies southern willow scrub (riparian scrub) as "wetlands" (City of Chula Vista 2003). Southern willow scrub is considered a wetland (riparian scrub) per the City of San Diego's Biology Guidelines (City of San Diego 2018a).

3.1.6 Mule Fat Scrub

Mule fat scrub is a depauperate, tall, herbaceous riparian scrub strongly dominated by mule fat (*Baccharis salicifolia* ssp. *salicifolia*). This early seral community is maintained by frequent flooding. Site factors include intermittent stream channels with fairly coarse substrate and moderate depth to the water table (Oberbauer et al. 2008). This community type is widely scattered along intermittent streams and near larger rivers.

The area mapped as mule fat scrub occupies 0.11 acres within the project area and occurs along the eastern boundary of the project area (see Figure 3-1). The City of Chula Vista's MSCP Subarea Plan identifies mule fat scrub (riparian scrub) as "wetlands" (City of Chula Vista 2003). Mule fat scrub is considered a wetland (riparian scrub) per the City of San Diego's Biology Guidelines (City of San Diego 2018a).

3.1.7 Disturbed Wetland

Disturbed wetlands are characterized by areas permanently or periodically inundated by water, which have been significantly modified by human activity. Characteristic species include giant reed, tamarisk (*Tamarix* spp.) and fan palms, though may be consisting of bare ground or contain native wetland plants such as willows (*Salix* spp.) (Oberbauer at al. 2008).

The areas mapped as disturbed wetland occupy 0.05 acre within the project area and occur along the eastern boundary of the project area (see Figure 3-1). The City of Chula Vista's MSCP Subarea Plan identifies disturbed wetland (disturbed wetlands) as "wetlands" (City of Chula Vista 2003). Disturbed wetlands are considered a wetland (disturbed wetlands) per the City of San Diego's Biology Guidelines (City of San Diego 2018a).

3.1.8 Emergent Wetland

Emergent wetlands are generally persistent wetlands dominated by low growing, perennial wetland species. They can occur along channels and floodplains, often in previously disturbed areas where wetlands are emerging. Characteristic species include curly dock (*Rumex* spp.) (Oberbauer 2008).

The areas mapped as emergent wetland occupy 0.18 acre within the project area and occur along the eastern boundary of the project area (see Figure 3-1). The City of Chula Vista's MSCP Subarea Plan identifies emergent wetland (riparian scrub) as "wetlands" (City of Chula Vista 2003). Emergent wetlands are considered a wetland (riparian scrub) per the City of San Diego's Biology Guidelines (City of San Diego 2018a).

3.1.9 Disturbed Habitat

Disturbed habitats are areas that have been physically disturbed and are no longer recognizable as a native or naturalized vegetation (Oberbauer et al. 2008). These areas may continue to retain soil substrate. If vegetation is present, it is almost entirely composed of non-native vegetation, such as ornamentals or ruderal exotic species. According to Oberbauer et al. (2008), disturbed habitat refers to areas that are not developed yet lack vegetation and that generally are the result of severe or repeated mechanical perturbation.

Disturbed habitat occupies a total of 8.13 acres within the project area (see Figure 3-1). This land cover occurs throughout the site, primarily along the southern and northern boundaries of the project area. The City of Chula Vista's MSCP Subarea Plan identifies disturbed habitat (disturbed lands) as Tier IV "other uplands" (City of Chula Vista 2003). Disturbed habitat is considered a Tier IV habitat (disturbed land) per the City of San Diego's Biology Guidelines (City of San Diego 2018a).

3.1.10 Eucalyptus Woodland

Eucalyptus woodland is not recognized by Holland (1986) but is recognized by Oberbauer et al. (2008). This "naturalized" vegetation community is fairly widespread in Southern California and is considered a woodland habitat. It typically consists of monotypic stands of introduced Australian eucalyptus trees (*Eucalyptus* spp.). The understory is either depauperate (i.e., lacking species variety) or absent, owing to high leaf litter. Although eucalyptus woodlands are of limited value to most native plants and animals, they frequently provide nesting and perching sites for several raptor species.

Eucalyptus woodland occupies a total of 1.80 acres within the project area, entirely within the 100-foot survey buffer (see Figure 3-1). This vegetation community occurs to the west of the western boundary of the project site. The City of Chula Vista's MSCP Subarea Plan identifies eucalyptus woodland as Tier IV "other uplands" (City of Chula Vista 2003). Eucalyptus woodland is considered a Tier IV habitat per the City of San Diego's Biology Guidelines (City of San Diego 2018a).

3.1.11 Ornamental

Ornamental land cover consists of species planted for landscaping purposes, and totals 1.86 acres within the project area. Areas mapped as ornamental are located along the slope to the east of the project site along the RiverEdge Terrace development (see Figure 3-1). As documented in the as-built plans for that development, the adjacent slope to the project site was graded and subsequently planted utilizing hydroseed mix to reduce erosion along the slope. This hydroseed mix included native species (Attachment 6).

3.1.12 Urban/Developed

According to Oberbauer et al. (2008), urban/developed land represents areas that have been constructed upon or otherwise physically altered to an extent that native vegetation communities

are not supported. This land cover type generally consists of semi-permanent structures, homes, parking lots, pavement or hardscape, and landscaped areas that require maintenance and irrigation (e.g., ornamental greenbelts). Typically, this land cover type is unvegetated or supports a variety of ornamental plants and landscaping.

Areas mapped as urban/developed land occupy 1.53 acres of the project area (see Figure 3-1). This land cover occurs in the southeastern corner of the project area. Urban/developed is not ranked in the City of Chula Vista's MSCP Subarea Plan (City of Chula Vista 2003). Disturbed habitat is considered a Tier IV habitat (disturbed land) per the City of San Diego's Biology Guidelines (City of San Diego 2018a).

3.2 Plants

A total of 112 species of native or naturalized plants, 59 native (52 percent) and 53 non-native (48 percent), were recorded during the biological surveys for the project. A cumulative list of all common and sensitive plant species observed in the project area is provided in Attachment 7 of this report.

3.3 Wildlife

The project area supports habitat primarily for upland species within coastal sage scrub, non-native grassland, and disturbed habitat. These upland habitats also provide foraging and nesting habitat for migratory and resident bird species and other wildlife species. Suitable habitat for sensitive riparian species is present within riparian scrub (southern willow scrub and mule fat scrub) habitats along the eastern edge of the project area. The range of vegetated communities in the project area also likely provides cover and foraging opportunities for wildlife species, including reptiles and mammals.

A total of 66 wildlife species, including 51 birds, 7 butterflies, 5 mammals, 2 reptiles, and 1 amphibian, were recorded during the biological surveys for the project area. A cumulative list of all common and sensitive wildlife species observed in the project area is provided in Attachment 8 of this report.

3.3.1 Reptiles and Amphibians

Two reptiles were observed within the project area during biological surveys: western fence lizard (*Sceloporus occidentalis*) and southern alligator lizard (*Elgaria multicarinata*). One amphibian, a treefrog (*Pseudacris* sp.), was observed within the project area.

3.3.2 Birds

A total of 51 species of birds were observed within the project area or immediately off site during the biological surveys. Some of the species commonly observed include spotted towhee (*Pipilo maculatus*), lesser goldfinch (*Spinus psaltria*), Bewick's wren (*Thryomanes bewickii*), house finch (*Haemorhous mexicanus*), and common raven (*Corvus corax*).

3.3.3 Mammals

Five mammals were observed within the project area during biological surveys. Commonly observed species include coyote (scat signs only) (*Canis latrans*), California ground squirrel (*Spermophilus beecheyi*), and desert cottontail (*Sylvilagus audubonii*).

3.3.4 Invertebrates

A total of seven butterfly species were observed within the project area during biological surveys. Commonly observed butterflies included Pacific sara orangetip (*Anthocharis sara sara*), funereal duskywing (*Erynnis funeralis*), western tiger swallowtail (*Papilio rutulus*), and painted lady (*Vanessa cardui*).

3.4 Sensitive Resources

For purposes of this report, species will be considered sensitive if they are (1) covered species under the City of Chula Vista or City of San Diego MSCP Subarea Plan; (2) listed by state or federal agencies as threatened or endangered or are proposed for listing (CDFW 2022b, 2022c); (3) on California Rare Plant Rank 1B (considered endangered throughout its range) or California Rare Plant Rank (CRPR) 2 (considered endangered in California but more common elsewhere), CRPR 3 (more information about the plant's distribution and rarity needed), and CRPR 4 (plants of limited distribution) of the CNPS Inventory of Rare and Endangered Vascular Plants of California (2022); or (4) designated by the City of Chula Vista or City of San Diego as a narrow endemic species (City of Chula Vista 2003; City of San Diego 1997, 2018a).

3.4.1 Special-Status Plant Species

Nine sensitive plant species were observed within the project area: Otay tarplant, South Coast saltscale (*Atriplex pacifica*), San Diego barrel cactus (*Ferocactus viridescens* var. *viridescens*), California adolphia (*Adolphia californica*), San Diego bur-sage (*Ambrosia chenopodiifolia*), San Diego marsh-elder (*Iva hayesiana*), San Diego County viguiera (*Bahiopsis laciniata*), small-flowered microseris (*Microseris douglasii* ssp. *platycarpha*), and ashy spike-moss (*Selaginella cinerascens*). A comprehensive list of sensitive plant species with potential for occurrence within the project area is presented in Attachment 9 and includes those species with low potential for occurrence based on species range and habitat conditions.

Otay Tarplant (*Deinandra conjugens*)

Otay tarplant is federally listed as threatened, state endangered, City of Chula Vista and City of San Diego MSCP covered species and narrow endemic and has a CRPR of 1B.1. This annual herb is often found in coastal scrub and valley and foothill grassland on clay soils. This species' typical blooming period is May and June, and it occurs on elevations ranging from 82 feet to 984 feet amsl.

A small population, totaling between 4 and 14 individuals based on surveys conducted in 2020 and 2022 occurs within the off-site area associated with roadway improvements in the City of San

Diego (see Figure 3-1). This population occurs outside of any Conservation Areas and the MHPA and does not represent a significant population of this species.

South Coast Saltscale (*Atriplex pacifica*)

South Coast saltscale has a CRPR of 1B.2. South Coast saltscale is an annual herb occurring in coastal sage scrub, as well as coastal bluff scrub, coastal dunes and playa below 460 feet amsl (CNPS 2020).

South Coast saltscale was observed within the off-site area associated with roadway improvements in the City of San Diego (see Figure 3-1).

San Diego Barrel Cactus (*Ferocactus viridescens*)

San Diego barrel cactus has a CRPR of 2B.1 and is a City of Chula Vista and City of San Diego MSCP Subarea Plan covered species. This succulent is located at elevations less than 1,500 feet amsl within chaparral, coastal scrub, valley and foothill grasslands, and sometimes in vernal pools (CNPS 2020). This species blooms May through July.

Approximately 24 San Diego barrel cactus individuals were observed within non-native grassland in the southeastern portion of the project area (see Figure 3-1).

California Adolphia (*Adolphia californica*)

California adolphia has a CRPR of 2B.1. California adolphia is a perennial deciduous shrub and is distributed along the coast of San Diego County (CNPS 2020). California adolphia is found in chaparral, coastal sage scrub, and valley grassland. This species' blooming period is between December and May. California adolphia occurs on clay soils below 1,310 feet amsl.

Approximately 74 California adolphia individuals were observed within Diegan coastal sage scrub and disturbed habitat in the southwestern corner of the project area (see Figure 3-1).

San Diego Bur-sage (*Ambrosia chenopodiifolia*)

San Diego bur-sage has a CRPR of 2B.1. San Diego bur-sage is a perennial shrub occurring in San Diego and Orange Counties (CNPS 2020). This species is found in coastal sage scrub at elevations between 180 feet and 510 feet amsl. This species' blooming period is between April and June.

Approximately 858 San Diego bur-sage individuals were observed within Diegan coastal sage scrub in the southwestern corner and along the eastern boundary of the project area (see Figure 3-1).

San Diego Marsh-elder (*Iva hayesiana*)

San Diego marsh-elder has a CRPR of 2B.2. San Diego marsh-elder is a perennial herb occurring in San Diego County and Baja California (CNPS 2020). San Diego marsh-elder is found in riparian and marsh habitats between 10 and 500 amsl.

San Diego marsh-elder was observed within southern willow scrub and mule fat scrub habitat in the eastern portion of the project area (see Figure 3-1). San Diego marsh-elder on-site totals approximately 0.05 acre.

Ashy Spike-moss (*Selaginella cinerascens*)

Ashy spike-moss has a CRPR of 4.1. Ashy spike-moss is a pteridophyte, California native fern that occurs in San Diego, Riverside, and Orange Counties (CNPS 2020). This species is found in chaparral and coastal sage scrub. Ashy spike-moss occurs at elevations of 65 feet to 2,100 feet amsl.

Ashy spike-moss was observed within Diegan coastal sage scrub, non-native grassland, and disturbed habitat in the southern portion of the 100-foot survey buffer (see Figure 3-1). Ashy spike-moss on-site totals approximately 0.02 acre.

San Diego County Viguiera (*Bahiopsis laciniata*)

San Diego County viguiera has a CRPR of 4.2. This shrub is found at elevations ranging from 200 to 2,460 feet amsl in chaparral and coastal scrub (CNPS 2020). This species typically blooms February through June.

Approximately 2,196 San Diego County viguiera individuals were observed within Diegan coastal sage scrub, non-native grassland, and disturbed habitat along the southern and eastern boundaries of the project area (see Figure 3-1). The individuals observed along the eastern boundary within the 100-foot survey buffer occur on previously graded slopes associated with the RiverEdge Terrace development that were hydroseeded for erosion control (see Attachment 6).

Small-Flowered Microseris (*Microseris douglasii* ssp. *platycarpha*)

Small-flowered microseris has a CRPR of 4.2. Small-flowered microseris is an annual herb and is distributed along the coast of San Diego County (CNPS 2020). Small-flowered microseris is found in valley grassland, coastal sage scrub, and foothill woodland. This species' blooming period is between March and May. Small-flowered microseris occurs in wetlands at elevations less than 3,600 feet amsl.

A total of six small-flowered microseris individuals were observed within Diegan coastal sage scrub in one area in the southern portion of the project area (see Figure 3-1).

3.4.2 Special-Status Wildlife Species

Five sensitive wildlife species were observed during biological surveys: coastal California gnatcatcher, least Bell's vireo, yellow warbler (*Setophaga petechia*), yellow-breasted chat (*Icteria virens*) (observed off-site), and western bluebird (*Sialia mexicana*). Special-status wildlife species determined to have a moderate potential to occur within the project area include the following: orange-throated whiptail (*Aspidoscelis hyperythra*), San Diegan tiger whiptail (*Aspidoscelis tigris stejnegeri*), Cooper's hawk (*Accipiter cooperii*), pallid bat (foraging only) (*Antrozous pallidus*), Mexican long-tongued bat (foraging only) (*Choeronycteris mexicana*), and western mastiff bat (foraging only) (*Eumops perotis californicus*). Additionally, two special-status wildlife species, burrowing owl (*Athene cunicularia*) and Crotch's bumble bee, were determined to have a low to moderate potential to occur within the project area. These species are discussed in further detail below. A comprehensive list of sensitive wildlife with potential for occurrence within the project area is presented in Attachment 10 and includes those species with low potential for occurrence based on species range and habitat conditions.

3.4.2.1 Reptiles

Orange-Throated Whiptail *(Aspidoscelis hyperythra)*

Orange-throated whiptail is a City of Chula Vista and City of San Diego MSCP Subarea Plan covered species. Orange-throated whiptail inhabits low-elevation coastal scrub, chamise–redshank chaparral, and valley–foothill hardwood habitats (Zeiner et al. 1990). This species ranges from Orange, Riverside, and San Bernardino County to San Diego County west of the Peninsular Ranges. The orange-throated whiptail ranges in elevation from sea level to 3,410 feet amsl (Jennings and Hayes 1994). This species uses dense vegetation, or other surface objects such as rocks, logs, decaying vegetation, and boards, as cover.

Orange-throated whiptail has a moderate potential to occur within the Diegan coastal sage scrub in project area.

San Diegan Tiger Whiptail *(Aspidoscelis tigris stejnegeri)*

San Diegan tiger whiptail is a CDFW species of special concern. It is found in coastal Southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges, north into Ventura County, and south into Baja California, Mexico (Lowe et al. 1970; Stebbins 2003). Tiger whiptail (*A. tigris*) is found in a variety of habitats, primarily in areas where plants are sparse and there are open areas for running. According to Stebbins (2003), the species ranges from deserts to montane pine forests, where it prefers warmer and drier areas. The species is also found in woodland and streamside growth, and it avoids dense grassland and thick shrub growth.

San Diegan tiger whiptail has a moderate potential to occur within areas of open habitat in the project area, primarily the Diegan coastal sage scrub and non-native grassland.

3.4.2.2 Birds

Cooper's Hawk (*Accipiter cooperii*)

Cooper's hawk is a City of Chula Vista and City of San Diego MSCP Subarea Plan covered species. It is found throughout California in wooded areas. This species inhabits live oak, riparian, deciduous, and other forest habitats near water. Nesting and foraging usually occur near open water or riparian vegetation. Nests are built in dense stands with moderate crown depths, usually in second-growth conifer or deciduous riparian areas. Cooper's hawk uses patchy woodlands and edges with snags for perching while it hunts for prey such as small birds, small mammals, reptiles, and amphibians in broken woodland and habitat edges (Zeiner et al. 1990).

Cooper's hawk has a moderate potential to nest within the southern willow scrub and eucalyptus woodland within the project area.

Coastal California Gnatcatcher (*Polioptila californica californica*)

Coastal California gnatcatcher is a federally threatened species, a CDFW species of special concern, and a City of San Diego and City of Chula Vista MSCP Subarea Plan covered species. Coastal California gnatcatcher breeds in lower elevations (less than 500 meters, or 1,640 feet amsl) south and west of the Transverse and Peninsular Ranges (Atwood and Bolsinger 1992). Higher densities of this

species occur in coastal San Diego and Orange Counties, and lower densities are found in Los Angeles, Orange, western Riverside, southwestern San Bernardino, and inland San Diego Counties (Atwood 1993; Preston et al. 1998). The coastal California gnatcatcher primarily occupies open coastal sage scrub habitat that is dominated by coastal sagebrush. This species is relatively absent from coastal sage scrub habitats dominated by black sage (*Salvia mellifera*), white sage (*Salvia apiana*), or sugar bush (*Rhus ovata*).

One pair of coastal California gnatcatcher was identified during all three protocol surveys in 2020 (see Figure 3-1). The pair was found both visually and acoustically each survey visit in the farthest south-central portion of the site. Since it was breeding season, the male was identified by the fine narrow black cap, and the female was observed close by. Additionally, coastal California gnatcatcher was incidentally detected in the southeastern portion of the project area and in the 100-foot survey buffer during protocol riparian bird surveys in July 2020 and the biological verification survey in March 2022. Attachment 2 includes the methods and results of the coastal California gnatcatcher 2020 protocol-level survey. Based on the survey results, coastal California gnatcatcher is assumed to be present in all Diegan coastal sage scrub and Diegan coastal sage scrub: *Baccharis*-dominated within the project area.

Least Bell's Vireo (*Vireo bellii pusillus*)

Least Bell's vireo is federally endangered, state endangered, and a City of San Diego and City of Chula Vista MSCP Subarea Plan covered species. The breeding range of least Bell's vireo includes coastal and inland Southern California (including the western edge of Southern California's southern deserts), a small area within California's Central Valley, and extreme northern Baja California, Mexico. Least Bell's vireo overwinters primarily along southern Baja California (Kus 2002). Least Bell's vireo primarily occupy riverine riparian habitats along water, including dry portions of intermittent streams that typically provide dense cover within 1 to 2 meters (3.3 to 6.6 feet) off the ground, often adjacent to a complex, stratified canopy. Least Bell's vireo nesting habitats in cismontane and coastal areas include southern willow scrub, mule fat scrub, arroyo willow riparian forest edge, wild blackberry thickets, and more rarely, cottonwood forest, sycamore alluvial woodland, and southern coast live oak riparian forest.

Least Bell's vireo was observed during focused rare plant surveys and protocol riparian bird surveys in May 2020 (see Figure 3-1). Least Bell's vireo was observed only on the eastern side of the site within the southern willow scrub, mule fat scrub, and disturbed habitat adjacent to the *Arundo*-dominated riparian. Two male least Bell's vireo were detected as attempting to establish breeding territories within the protocol survey area. Areas with high potential for least Bell's vireo to nest on-site include the eastern side of the project site within the southern willow scrub habitat. Attachment 3 includes the methods and results of the least Bell's vireo 2020 protocol-level survey. Based on the survey results, least Bell's vireo is assumed to be present in all southern willow scrub, mule fat scrub, and *Arundo*-dominated riparian within the project area.

Burrowing Owl (*Athene cunicularia*)

Burrowing owl is CDFW species of special concern and a City of San Diego and City of Chula Vista MSCP Subarea Plan covered species. It occurs throughout North and Central America west of the eastern edge of the Great Plains south to Panama. The winter range is much the same as the nesting range, except that most burrowing owls apparently vacate the northern areas of the Great Plains and

the Great Basin in winter (County of Riverside 2008). The majority of burrowing owls that breed in Canada and the northern United States are believed to migrate south during September and October and north during March and April and into the first week of May. These individuals winter within the nesting habitat of more southern populations. Thus, winter observations may include migratory individuals and the resident population (County of Riverside 2008). The burrowing owls in Northern California are believed to migrate (Coulombe 1971).

In California, burrowing owls are year-round residents of flat, open, dry grassland and desert habitats at lower elevations. They can inhabit annual and perennial grasslands and scrublands characterized by low-growing vegetation. They may be found in areas that include trees and shrubs if the cover is less than 30 percent; however, they prefer treeless grasslands (Bates 2006). Although burrowing owls prefer large, contiguous areas of treeless grasslands, they have also been known to occupy fallow agriculture fields, golf courses, cemeteries, road allowances, airports, vacant lots in residential areas and university campuses, and fairgrounds when nest burrows are present (Bates 2006; County of Riverside 2008). They typically require burrows made by fossorial mammals, such as California ground squirrel. This species also prefers sandy soils with higher bulk density and less silt, clay, and gravel (Lenihan 2007).

While none were observed, burrowing owl has a moderate potential to occur within the non-native grassland within the project area. Though the project area currently lacks suitable burrows for nesting and ground squirrel activity, portions of the non-native grassland have suitable vegetation structure and species occurrence records are known from the general vicinity (e.g., Otay Mesa area). Therefore, this species could subsequently occupy the project area should suitable burrows develop in the future.

Yellow Warbler (*Setophaga petechia*)

Yellow warbler is a CDFW species of special concern. Yellow warbler inhabits riparian woodland in coastal and desert lowlands, montane chaparral, open ponderosa pine, and mixed conifer habitats (Zeiner et al. 1990). This species breeds along the coast of California west of Sierra Nevada, and eastern California from Lake Tahoe south to Inyo County. The yellow warbler occurs in medium-density woodlands and forests with heavy brush understory and migrates to sparse to dense woodland and forest habitats.

Yellow warbler was observed during riparian bird surveys in June 2020 (see Figure 3-1). This species has a high potential to nest within the southern willow scrub and mule fat scrub in the eastern portion of the project area and is assumed to be present within all southern willow scrub and mule fat scrub within the project area.

Western Bluebird (*Sialia mexicana*)

Western bluebird is a City of Chula Vista and City of San Diego MSCP covered species. It is a common resident bird in San Diego County, where it prefers montane coniferous and oak woodlands (Unitt 2004). It nests in old-growth red fir, mixed conifer, and lodgepole pine habitats near wet meadows used for foraging. Because this species is not considered special status by state or federal agencies, it is not tracked in the CNDDB.

Western bluebird was observed during riparian bird surveys in June 2020 (see Figure 3-1). This species was observed foraging within the project area; however, the project area lacks suitable large trees with cavities for nesting. This species is assumed to utilize the site for foraging but not nesting.

Yellow-Breasted Chat (*Icteria virens*)

Yellow-breasted chat is a CDFW species of special concern. Yellow-breasted chat inhabits valley foothill riparian habitats 1,450 meters (4,757 feet) in elevation and desert riparian habitats 2,050 meters (6,726 feet) in elevation (Zeiner et al. 1990). The yellow-breasted chat is a summer resident and migrant in coastal California and in the foothills of the Sierra Nevada. This species occurs along the coast of Northern California east to Cascades and locally south of Mendocino County (McCaskie et al. 1979). In Southern California, the yellow-breasted chat breeds on the coast and inland (Garrett and Dunn 1981). The yellow-breasted chat requires riparian thickets of willow and other brush near water for cover.

Yellow-breasted chat was observed off-site during riparian bird surveys in June 2020 (see Figure 3-1). This species has a high potential to nest within the southern willow scrub and mule fat scrub in the eastern portion of the project area and is assumed to be present within all southern willow scrub and mule fat scrub within the project area.

3.4.2.3 Mammals

Pallid Bat (*Antrozous pallidus*)

Pallid bat is a CDFW species of special concern. Pallid bat is widespread throughout the western United States; southern British Columbia, Canada; and mainland and Baja, Mexico (Hall 1981; Hermanson and O'Shea 1983). Within the United States, it ranges east into southern Nebraska, western Oklahoma, and western Texas. Pallid bat occurs throughout California, except for the highest elevations of the Sierra Nevada, in Southern California counties including Los Angeles, San Bernardino, San Diego, Riverside, Orange, and Ventura (CDFW 2020).

Pallid bat is locally common in arid deserts (especially the Sonoran life zone) and grasslands throughout the western United States, and also occurs in shrublands, woodlands, and forests at elevations up to 8,000 feet amsl (Hermanson and O'Shea 1983). Although it prefers rocky outcrops, cliffs, and crevices with access to open habitats for foraging, it has been observed far from such areas (Hermanson and O'Shea 1983).

Pallid bat has a moderate potential to forage within the project area but is not expected to roost due to lack of rocky outcrops and man-made structures.

Mexican Long-tongued Bat (*Choeronycteris mexicana*)

Mexican long-tongued bat is a CDFW species of special concern. Mexican long-tongued bat is known in San Diego County as a summer resident primarily in urban habitat (Arroyo-Cabrales 1999; Olson 1947). This species forages in desert and montane riparian, desert scrub, desert succulent shrub, and pinyon–juniper habitats (Zeiner et al. 1990). Mexican long-tongued bat uses caves, mines, and buildings as day roosts (Arroyo-Cabrales et al. 1987). This species winters in Mexico and northern Central America (Zeiner et al. 1990).

Mexican long-tongued bat has a moderate potential to forage within the project area but is not expected to roost due to lack of suitable caves, mines, and buildings.

Western Mastiff Bat (*Eumops perotis californicus*)

Western mastiff bat is a CDFW species of special concern. Western mastiff bat's year-round range includes the San Joaquin Valley, the coastal region from the San Francisco Bay area south to San Diego, and the Transverse and Peninsular Ranges and Mojave and Colorado Deserts of Southern California. It is absent in California from the agricultural regions of the Central Valley, northwestern California, and the Great Basin Desert of northeastern California (Zeiner et al. 1990). Records from counties in Southern California include Los Angeles, San Diego, Orange, Riverside, San Bernardino, Imperial, and Ventura (CDFW 2020).

Western mastiff bat occurs in a wide variety of chaparral, coastal scrub, coniferous and deciduous forest and woodland, and desert scrub habitats (Best et al. 1996; Zeiner et al. 1988–1990). Day roosts are established in crevices in rocky canyons and cliffs where the canyon/cliff is vertical or nearly vertical (Best et al. 1996), as well as trees and tunnels (Zeiner et al. 1990). This species has also adapted to roosting in buildings and has been observed hanging from various other kinds of built structures, including awnings, ledges over doors and windows, large cracks in masonry, and rafters (Best et al. 1996).

Western mastiff bat has a moderate potential to forage within the project area but is not expected to roost due to lack of suitable rock crevices and cliffs.

3.4.2.4 Invertebrates

Quino Checkerspot Butterfly (*Euphydryas editha quino*)

Quino checkerspot butterfly is a federally endangered species and is covered under the City of Chula Vista MSCP Subarea Plan, although it is not covered under the City of San Diego's MSCP Subarea Plan. This species is found only in western Riverside County, southern San Diego County, and northern Baja California, Mexico (USFWS 2003). This species is found on sparsely vegetated hilltops, ridgelines, and occasionally on rocky outcrops in open chaparral and coastal sage scrub habitat (typically at less than 3,000 feet amsl). This species requires host plants within these vegetation communities for feeding and reproduction. The primary larval host plant is dot-seed plantain (*Plantago erecta*); however, several other species have been documented as important larval host plants, including desert plantain, sometimes called woolly plantain (*Plantago patagonica*); thread-leaved bird's beak (*Cordylanthus rigidus*); white snapdragon (*Antirrhinum coulterianum*); owl's clover (*Castilleja exserta*); and Chinese houses (*Collinsia* spp.) (USFWS 2003).

The project site occurs within the USFWS Quino checkerspot butterfly survey area but outside the City of Chula Vista's MSCP Subarea Plan 2000 Quino checkerspot butterfly survey area. Quino checkerspot butterfly is not expected to occur within the project area based on lack of suitable habitat and surrounding urban development. The habitats on-site lack this species' host plant, dot-seed plantain. In addition, the non-native grassland and disturbed habitat on-site have been subject to historic disturbance from agriculture, are characterized by dense, non-native species and lack suitable openings for this species. The project site is also surrounded by dense urban

development on three sides, including I-805, and lacks connectivity to suitable habitat in the vicinity. Surveys were conducted in 2005 and Quino checkerspot butterfly was absent. Furthermore, upon coordination with Eric Porter of the USFWS, focused surveys for this species were not deemed necessary (Dudek, pers. comm., February 27, 2020).

Crotch's bumble bee (*Bombus crotchii*). Crotch's bumble bee is a state candidate for listing as endangered. This species prefers open grassland and shrub habitats (Xerces Society 2018). In California, its distribution is exclusive to coastal areas from San Diego towards the Sierra-Cascade Crest. This species is less common in western Nevada. Crotch's bumble bee are generalist foragers and feed on snapdragon (*Antirrhinum* spp.), phacelia (*Phacelia* spp.), clarkia (*Clarkia* spp.), bush poppy (*Dendromecon* spp.), California poppy (*Eschscholzia californica*), and buckwheat (*Eriogonum* spp.) (USFS 2018; Xerces Society 2018). Nesting occurs primarily underground, often in abandoned holes made by rodents or occasionally abandoned bird nests typical of most bumble bee species (Xerces Society 2018; USFWS 2023). Near-surface or subsurface disturbance such as mowing, fire, tilling, grazing, and planting may preclude bumble bee nesting colonies (Xerces Society 2018).

Crotch's bumble bee was not observed on the site during the various site surveys between 2020 and 2023 (see Table 1). Per the CDFW survey considerations (CDFW 2023b), a database review and habitat assessment were completed to determine the potential for Crotch's bumble bee. A review of historical and current occurrences (CDFW 2023a) found no Crotch's bumble bee records within the vicinity of the project site and the nearest last known siting is five miles from the project site. The habitat assessment was based upon general biological and botanical surveys conducted between 2020 and 2022, which included an inventory of all floral resources as well as habitat suitability assessment for special-status species. Based on the habitat assessment, the majority of the project site (19.12 acres) consists of non-native grassland, wetland communities, and non-native land cover types dominated by riparian and non-native species (e.g., short-pod mustard [*Hirschfeldia incana*], crown daisy [*Glebionis coronaria*]) with limited known floral resources for foraging. However, some known nectar plants are present in low densities (<1% relative cover) including fiddleneck (*Amsinckia* spp.), wild Canterbury-bell (*Phacelia minor*), and California buckwheat within the coastal sage scrub on the slopes in the southern portion of the project site (4.65 acres). Furthermore, the project site supports limited nesting habitat due to dense thatch of non-native grasses and forbs present throughout the project site. Bare ground is primarily limited to dirt access roads and footpaths, and the project site lacks suitable abandoned burrows for nesting based on surveys conducted in 2022. The project site also lacks adjacency to high-quality foraging or nesting habitat. Though potential floral resources for foraging are present on the vegetated manufactured slopes south and east of the project site, these areas are bounded by dense urban development and have low potential to support nesting due to dense vegetation and lack of suitable existing cavities for nesting. The parcel to the north has been graded and heavily disturbed from past storage operations and primarily contains dense invasive species, with bare ground limited to a gravel staging area that been heavily compacted and is partially covered with gravel and a walking trail.

Based on this information, the bumble bee has a moderate potential to forage within the project site based on the species range and available nectar sources on-site. This species has a low potential to nest on-site as the majority of the disturbed land and non-native grassland on-site are densely vegetated and lack suitable openings or burrows for nesting and lacks adjacency to high-quality foraging or nesting habitat.

3.4.3 Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the immigration and emigration of animals. Wildlife corridors contribute to population viability by (1) ensuring the continual exchange of genes between populations, which helps maintain genetic diversity; (2) providing access to adjacent habitat areas, representing additional territory for foraging and mating; (3) allowing for a greater carrying capacity; and (4) providing routes for colonization of habitat lands following local population extinctions or habitat recovery from ecological catastrophes (e.g., fires).

Habitat linkages are patches of native habitat that function to join two larger patches of habitat. They serve as connections between habitat patches and help reduce the adverse effects of habitat fragmentation. Although individual animals may not move through a habitat linkage, the linkage does represent a potential route for gene flow and long-term dispersal. Habitat linkages may serve as both habitat and avenues of gene flow for small animals such as reptiles and amphibians. Habitat linkages may be represented by continuous patches of habitat or by nearby habitat "islands" that function as steppingstones for dispersal.

Due to the limited amount of native habitat and its proximity to existing residential and commercial development, the project area is unlikely to be a wildlife corridor. Habitat associated with Otay River may support wildlife species movement; however, the river is outside the project area. Wildlife could move in an east–west direction through the Otay River riparian corridor, along the northern boundary of the project area; however, movement south through the project area would be restricted by development and major roads and freeways. Because the project area does not join two larger patches of habitat, functioning more to support live-in habitat for smaller wildlife species or stopover habitat for species using the Otay River corridor—albeit with limited native habitat—it would not be considered a habitat linkage.

As described in Section 1.3, Regulatory Context, the MHPA was designed to include key biological core and linkage areas within the City of San Diego and the City of Chula Vista. The project area is not within the City of San Diego designated MHPA or within the 75% or 100% Conservation Areas designated by the City of Chula Vista MSCP Subarea Plan. The closest City of San Diego MHPA boundary occurs approximately 180 feet west of the project area and the closest City of Chula Vista designated 75% Conservation Area occurs approximately 197 feet to the north of the project area. Both the MHPA and the Conservation Area are located within the Otay River (see Figure 1-5). Therefore, the project is located outside of any significant regional corridors.

3.4.4 Jurisdictional Resources

A wetland/waters delineation was performed on-site according to the guidelines set forth by USACE (1987, 2008). A wetland/waters delineation is used to identify and map the extent of the wetlands and waters of the U.S. and provide information regarding jurisdictional issues. The methods used for the wetland delineation and survey findings are further discussed in the wetland delineation report prepared for the project (see Attachment 4). Figure 3-2 shows the potential jurisdictional boundaries within the project area and summarized in Table 3. It should be noted that the majority of potential jurisdictional resources are currently located within the City of Chula Vista within the area of potential

annexation. These acreages are presented in Table 3 in separate columns for the City of San Diego and the City of Chula Vista; however, only one will take jurisdiction over those resources once a determination regarding the Annexation or No Annexation scenario has been made.

Table 3
Potential Jurisdictional Resources within the Project Area

Jurisdictional Resource	Acreage by Jurisdiction[a] RWQCB	CDFW	City of San Diego (Annexation Scenario)	City of Chula Vista (No Annexation Scenario)
Wetlands/Riparian Habitat				
Arundo-dominated riparian	—	0.12	0.12	0.12
Mule fat scrub	0.11	0.11	0.11	0.11
Southern willow scrub	0.32	0.32	0.32	0.32
Emergent wetland	0.18	0.18	0.18	0.18
Disturbed wetland	0.05	0.05	0.05	0.05
Total	**0.66**	**0.78**	**0.78**	**0.78**

USACE = U.S. Army Corps of Engineers; CDFW = California Department of Fish and Wildlife; RWQCB = Regional Water Quality Control Board.
[a]Due to overlap of resource jurisdictions, columns should not be added together.

3.4.4.1 Federal Waters of the U.S.

Under CWA Section 404, the USACE is authorized to regulate waters of the U.S. The currently accepted regulations defining waters of the U.S. follow the September 8, 2023 publishment of the final rule: *Revised Definition of "Waters of the U.S.", Conforming*. Notably, this new rule provides a new interpretation of the term "adjacent" whereas wetlands must contain a surface hydrologic connection to other waters of the U.S. to be considered adjacent waters of the U.S. Additionally, this new rule eliminates the applicability of the significant nexus standard for "non-relatively permanent waters," so ephemeral features are no longer likely to be considered waters of the U.S.

The southern willow scrub, mule fat scrub, disturbed wetland, and emergent wetland associated with the channel in the eastern portion of the project area support an ephemeral flow regime and would be considered a "non-relatively permanent water." Although it has connectivity to the Otay River, the lack of at least intermittent flow would likely preclude it from being considered waters of the U.S.

3.4.4.2 Waters of the State

The RWQCB is the regional agency responsible for protecting water quality in California. The jurisdiction of this agency includes waters of the State and all waters of the U.S. as mandated by both CWA Section 401 and the California Porter-Cologne Water Quality Control Act. Jurisdictional waters are delineated by using the three-perimeter definition similar to the federal definition requiring a predominance of hydrophytic vegetation, hydric soils, and hydrology (RWQCB 2020).

The potential RWQCB wetland waters of the State include 0.66 acre within the survey area (see Figure 3-2). These waters are equivalent to the USACE wetland waters (see Figure 3-2).

Image Source: NearMap (flown January 2023)



Project Boundary
Survey Area
RWQCB Wetland Waters of the State/ CDFW Riparian/ City of San Diego Wetland/ City of Chula Vista Wetland
CDFW Riparian/ City of San Diego Wetland/ City of Chula Vista Wetland

RECON

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FIGURE 3-2
Jurisdictional Resources

3.4.4.3 CDFW State Waters

Under Sections 1600–1607 of the CFGC, the CDFW regulates activities that would divert or obstruct the natural flow or substantially change the bed, channel, or bank of any river, stream, or lake that supports fish or wildlife. Jurisdictional waters are delineated by the outer edge of wetland vegetation, riparian habitat, or at the top of the bank of streams or lakes, whichever is wider.

All streambeds and associated wetlands are considered sensitive. These areas fall under the jurisdiction of the CDFW (Section 1600 of the CFGC). The CDFW jurisdictional areas extend to the outer edge of wetland vegetation or to the top of the bank of streams or lakes, whichever is wider.

The potential CDFW jurisdictional within the survey area totals 0.78 acre, including CDFW riparian (see Figure 3-2). The CDFW riparian includes 0.12 acre of *Arundo*-dominated riparian located off-site in the survey buffer area in addition to the RWQCB wetland waters in the on-site project area (see Figure 3-2).

3.4.4.4 City of San Diego and City of Chula Vista Wetlands

Potential City of San Diego and City of Chula Vista wetlands occur on-site where CDFW riparian and RWQCB wetland waters were delineated (see Figure 3-2). The total City of Chula Vista and City of San Diego wetlands within the survey area is 0.78 acre. Under the Annexation Scenario, the City of San Diego would take jurisdiction over the CDFW riparian and RWQCB wetland waters within the project site. Under the No Annexation Scenario, the City of Chula Vista would take jurisdiction over the CDFW riparian and RWQCB wetland waters within the project site.

3.4.4.5 Wetland Buffer

Currently, the wetland buffer from the on-site drainage consists of disturbed land, Diegan coastal sage scrub and ornamental, and is heavily dominated by non-native species such as black mustard (*Brassica nigra*) and crown daisy (*Glebionis coronaria*). A buffer that ranges between 18 feet and 99 feet is being provided as part of the project to protect and maintain the functions and values of the on-site wetlands. The buffer is located along the western boundary of the drainage between the proposed development and the wetlands to avoid and minimize any indirect edge effects to the wetlands within the wetlands (Figure 3-2). The buffer would consist of manufactured slopes and a biofiltration basin planted with a mix of native species. A buffer between 18 feet and 98 feet is considered adequate due to the marginal functions and values of the wetlands, which is dominated by invasive species and has been heavily disturbed by encampments and trash. Furthermore, the landscaping would improve the quality of the buffer from existing conditions by removing invasive species and establishing native upland species, and a 6-foot block wall running along the eastern boundary of the project site would further protect functions and values of the wetlands on-site. The biofiltration basin would also protect the drainage from runoff from the adjacent development and water quality improvements implemented by the project would improve run-off in a manner that would also reduce erosion and siltation issues into the Otay River off-site. The biofiltration basin would be separated from the on-site wetlands by a 6-foot masonry block wall, which would prevent intrusion into the wetlands (see Figure 6 of Attachment 15). A more detailed analysis of project design features related to the on-site wetlands is included in Section 5.3.1.5. In addition, best management

practices would be implemented of the biofiltration basin and masonry wall to prevent indirect impacts to the on-site wetlands during construction, as detailed in Section 6.1.1.

In order to ensure that the wetland buffer provides protection of the functions and values of the remaining southern willow scrub, mule fat scrub, and disturbed wetland on-site, the following measures would be implemented to reduce avoid and minimize edge effects:

- A 6-foot block wall would be installed along the outer edge of the buffer to restrict access to the adjacent wetlands and streambed.
- Signage shall be posted that informs people of the sensitive nature of the adjacent wetland habitat and prohibits any brush management activities. As shown on the landscape plans, three signs shall be located west of the drainage, and state "Environmentally sensitive area: no brush management shall be performed beyond this point" (see Figure 6 of Attachment 15).
- Only native plants shall be used in the wetland buffer as shown on the project landscape plans.
- Long-term management shall include ongoing removal of invasives from the drainage and wetland buffer, as detailed in the Wetland Mitigation Plan and Long-term Management Plan and brush management plan (see Attachments 13 and 15).

4.0 Compliance with MSCP

Within the City of Chula Vista Subarea Plan, the project area is designated as "Development Area Outside Covered Projects" (i.e., not designated a preserve or conservation area) and is not located immediately adjacent to any 75% or 100% Conservation Areas (see Figure 1-5). The closest conservation area (75%) is located approximately 197 feet north of the project area within the Otay River (see Figure 1-5).

The project site and off-site areas would be subject to different regional resource planning documents depending on the project scenario. These scenarios and relevant MSCP Subarea Plan policies are described in further detail below.

4.1 Annexation Scenario

Under the Annexation Scenario, the project site would be annexed into the City of San Diego and therefore, would be subject to the City of San Diego MSCP Subarea Plan. Upon annexation into the City of San Diego, the Take Authorizations of the City of San Diego's MSCP Subarea Plan would then be applicable to the project site. In addition, the off-site area associated with road improvements in the City of San Diego would continue to be subject to the City of San Diego MSCP Subarea Plan. The off-site area associated with remedial grading would remain in the City of Chula Vista and would continue to be subject to the City of Chula Vista MSCP Subarea Plan.

Provisions for the annexation of properties between MSCP Subarea Plans is provided in Section 5.4.3 of the MSCP Subregional Plan (County of San Diego 1998). Under this section, an amendment to a Subarea Plan is allowed provided the conservation policies of the two Subarea Plans involved in the transfer are consistent with one another. A consistency analysis prepared for a previous development proposal on the subject property was completed by Helix Environmental Planning that demonstrated to the satisfaction of the Wildlife Agencies (City of San Diego 2012) that the City of San Diego MSCP Subarea Plan and City of Chula Vista MSCP Subarea Plan are consistent with each other considering they were both prepared pursuant to the MSCP Subregional Plan (County of San Diego 1998). This consistency analysis was discussed in the City of San Diego's Final 2011 MSCP Annual Report (City of San Diego 2012) and is included in Attachment 11. A consistency analysis for the current proposed project is included in Attachment 12.

As detailed in Attachment 12, the annexation would involve the transfer of a "Development Area Outside of Covered Projects" within Chula Vista to a "Development Area" in the City of San Diego. Mitigation ratios provided by the City of Chula Vista MSCP Subarea Plan and City of San Diego Biology Guidelines are consistent between jurisdictions; thus, no loss in habitat mitigation would result from the proposed transfer. In addition, no 75% or 100% Conservation Areas are proposed for development or would be transferred into the City of San Diego, so the transfer would not affect the City of Chula Vista's ability to meet their conservation obligations under the MSCP. In addition, the project area as a whole would continue to be subject to the MSCP Conditions for Coverage for covered species, as discussed in Section 4.3 below, which is based on Table 3-5 of the MSCP Subregional Plan and is consistent between both Subarea Plans. Therefore, transfer of the project site to the City of San Diego would not result in additional impacts to covered species. Narrow endemic impacts are limited to the off-site improvement area in the City of San Diego, which would remain in the City of San Diego and would not be subject to annexation. Thus, there would further be no changes in the protection of narrow endemics as a result of the proposed annexation. Thus, biological resources would be equally protected under both Subarea Plans and the transfer of the project site from the City of Chula Vista MSCP Subarea Plan to the City of San Diego MSCP Subarea Plan would be consistent with the conservation goals of the MSCP Subregional Plan.

Under the Annexation Scenario, the off-site area in the City of Chula Vista would also not be required to obtain a HLIT permit as the area is less than one acre in size and located entirely within a mapped "Development Area Outside of Covered Projects." Nonetheless, the off-site area in the City of Chula Vista is analyzed in Chapters 5.0 and 6.0 below to ensure consistency with the provisions of the MSCP and address cumulative contributions given that the entire project area as a whole exceeds one acre when accounting for the project site and off-site area within the City of San Diego.

4.2 No Annexation Scenario

Under the No Annexation Scenario, the project site and off-site area associated with remedial grading would remain in the City of Chula Vista and continue to be subject to the City of Chula Vista MSCP Subarea Plan. The off-site area associated with roadway improvements would remain in the City of San Diego and continue to be subject to the City of San Diego MSCP Subarea Plan. The project area as a whole would be subject to the MSCP Conditions for Coverage for covered species, which is consistent between both Subarea Plans.

Under the No Annexation Scenario, the project would also be subject to conformance with the City of Chula Vista's HLIT Ordinance, as described in Project Requirement (PR) BIO-1 in Section 6.2.5, Project Requirements. The HLIT Ordinance findings are provided in Attachment 1.

4.3 MSCP Conditions for Coverage

This section addresses project compliance with conditions for coverage of MSCP covered species, which would be required for the entire project area for both scenarios. Four MSCP covered species were observed within the project area: least Bell's vireo, coastal California gnatcatcher, Otay tarplant, and San Diego barrel cactus. Additionally, three MSCP covered species have potential to occur within the project area: Cooper's hawk, burrowing owl, and orange-throated whiptail. The project consistency with each MSCP condition of coverage for these seven species is addressed below.

Least Bell's Vireo – The MSCP conditions for coverage for least Bell's vireo require measures to provide appropriate successional habitat, upland buffers for all known populations, cowbird control, and specific measures to protect against detrimental edge effects to this species. Any clearing of occupied habitat must occur between September 15 and March 15 (i.e., outside of the breeding period) (City of Chula Vista 2003; City of San Diego 1997).

In order to comply with these conditions, off-site habitat-based mitigation at Spring Canyon, which contains suitable least Bell's vireo habitat, is proposed to compensate for the loss of suitable least Bell's vireo habitat within the project area, as detailed in Sections 6.1.1 and 6.2.1.

Through the implementation of proper best management practices (BMPs) both during construction, the project would not cause any detrimental edge effects to the suitable least Bell's vireo habitat adjacent to the project area or the upland buffers around this habitat. Specifically, disturbances to habitat that supports least Bell's vireo such as construction-related runoff, ground disturbance, and the introduction of invasive non-native species in adjacent off-site habitat would be minimized through the implementation of erosion control devices, silt fencing, and the containment and proper disposal of invasive non-natives, respectively. In addition, the project is not expected to affect the conditions of any habitat adjacent to the project area that would make it more favorable for cowbirds.

Restrictions on clearing of occupied habitat between September 15 and March 15 will be included as project mitigation and are discussed further in Sections 6.1.3 and 6.2.3.

Coastal California Gnatcatcher – The MSCP conditions for coverage include avoiding clearing of occupied habitat within MSCP preserve areas between March 1 and August 15, as well as management directives to reduce edge effects and minimize disturbance during the nesting period (City of Chula Vista 2003, City of San Diego 1997).

Suitable habitat for this species within and adjacent to the project area occurs entirely outside of any Conservation Areas and the MHPA. Therefore, no clearing or disturbance to this species within any Conservation Areas or the MHPA would result from project construction during the nesting period. In addition, the project's implementation of proper BMPs during construction is expected to minimize edge effects on the coastal sage scrub that would remain adjacent to the project area.

Otay Tarplant – The MSCP conditions for coverage include management directives for monitoring of populations and adaptive management of preserves (taking into consideration the extreme population fluctuations from year to year), and specific measures to protect against detrimental edge effects to this species (City of Chula Vista 2003, City of San Diego 1997).

Off-site mitigation is proposed to compensate for the loss of Otay tarplant within the project area. The mitigation site would be managed and monitored as part of the City of San Diego's MHPA. No additional populations outside of the project area were observed during biological surveys that would be subject to edge effects.

San Diego Barrel Cactus – The MSCP conditions for coverage include management directives to protect this species from edge effects, unauthorized collection, and include appropriate fire management/control practices to protect against a too frequent fire cycle (City of Chula Vista 2003, City of San Diego 1997).

The project's implementation of proper BMPs during construction is expected to minimize edge effects on the coastal sage scrub that would remain within and adjacent to the project area. In addition, unauthorized collection is not expected as the project is separated by fencing and 2:1 manufactured slopes from the habitat for this species. Fire frequency is not expected to increase with project implementation.

Cooper's Hawk – The MSCP conditions of coverage for Cooper's hawk include establishment of 300-foot impact avoidance areas around active nests, and minimization of disturbance in oak woodlands and oak riparian forests (City of Chula Vista 2003, City of San Diego 1997).

In order to accomplish this, the project includes measures to avoid the removal of potential Cooper's hawk habitat during the breeding season or, if the removal of habitat must occur during the breeding season, to conduct preconstruction surveys and establish a 300-foot impact avoidance area around any active Cooper's hawk nest. In addition, a biological monitor would be present during any vegetation removal activities, and it would be the responsibility of that monitor to assess the effectiveness of the 300-foot buffer. If needed, the biological monitor would identify additional measures necessary to avoid impacts to Cooper's hawk, such as increasing the buffer or implementing noise attenuation barriers.

Orange-throated Whiptail – The condition for coverage of orange-throated whiptail under the MSCP requires area specific management directives to address edge effects (City of Chula Vista 2003, City of San Diego 1997).

The project's implementation of proper BMPs during construction is expected to minimize edge effects on suitable Belding's orange-throated whiptail habitat.

Burrowing owl – The MSCP conditions of coverage for burrowing owl include avoiding impacts to the species to the maximum extent practicable. If burrowing owl are detected on-site, any impacted individuals must be relocated out of the impact area using passive or active methodologies approved by the wildlife agencies; mitigation for impacts to occupied habitat (at the Subarea Plan specified ratio) must be through the conservation of occupied burrowing owl habitat or conservation of lands

appropriate for restoration, management and enhancement of burrowing owl nesting and foraging requirements (City of Chula Vista 2003, City of San Diego 1997).

This species has a moderate potential to forage in the project area due to presence of suitable low-lying grassland, though has a low potential to nest due to lack of suitable burrows. However, to ensure consistency with this condition, the project includes measures to avoid impacts to burrowing owl, including preconstruction surveys to ensure this species does not occur in the project area at the time of construction.

5.0 Impact Analysis

The purpose of this section is to describe the direct, indirect, and cumulative impacts to biological resources that would result from implementation of the project. The significance determinations for potential impacts are described in this section. Mitigation measures to reduce impacts are provided in Section 6.

Direct Impacts refer to the permanent loss of on-site habitat and the plant and wildlife species that it contains. Direct impacts were quantified by overlaying the anticipated limits of grading on the biological resources map and quantifying the impacts. All biological resources within the project impact area are considered direct, permanent impacts.

Indirect Impacts result primarily from adverse edge effects on-site or off-site, and may be short term (temporary), related to construction, or long term, associated with development in proximity to biological resources within natural open space. During construction of the project, short-term indirect impacts may include dust and noise, which could disrupt habitat and species vitality temporarily, and construction-related soil erosion and runoff.

Cumulative impacts refer to incremental individual environmental effects of two or more projects when considered together. These impacts taken individually may be minor, but become collectively significant as they occur over a period of time.

5.1 City of San Diego

According to the City of San Diego Biology Guidelines, lands containing Tier I, II, IIIA, and IIIB habitats and all City of San Diego wetlands (see Table 2 of this report) are considered sensitive and declining and, as such, impacts to these resources may be considered significant. Lands designated as Tier IV are not considered to have significant habitat value and impacts would not be considered significant. Impacts to individual sensitive species, outside of any impacts to habitat, may also be significant based upon the rarity and extent of impacts. Impacts to state or federally listed species and all narrow endemics should be considered significant per the City's Biology Guidelines. Certain species covered by the MSCP and VPHCP and other species not covered by the MSCP, may be considered significant on a case-by-case basis taking into consideration all pertinent information regarding distribution, rarity, and the level of habitat conservation afforded by the MSCP.

The City of San Diego's Biology Guidelines also include additional information regarding significance, as follows (City of San Diego 2018a):

a. Total upland impacts (Tiers I–IIIB) less than 0.1 acre are not considered significant and do not require mitigation.

b. Impacts to non-native grasslands totaling less than 1.0 acre which are completely surrounded by existing urban developments are not considered significant and do not require mitigation.

c. Total wetland impacts less than 0.01 acre are not considered significant and do not require mitigation. This does not apply to vernal pools, road pools supporting listed fairy shrimp, or wetlands within the Coastal Zone.

d. Brush Management Zone 2 thinning activities, while having the potential to adversely affect biological resources, are not considered potentially significant inside the MHPA or, to the extent that non-covered species are not impacted, outside the MHPA, because of the implementation of the MSCP.

e. Habitat mitigation is not required for impacts to manufactured slopes or areas that have been planted with native species for the purpose of erosion control.

f. Removal/control of non-native plants is not considered to constitute a significant habitat impact for which compensatory habitat acquisition, preservation, or creation for the area impacted is required. Mitigation for indirect impacts such as erosion control or off-site infestation by non-native species may be needed.

5.2 City of Chula Vista

The City of Chula Vista MSCP Subarea Plan defines sensitive biological resources as lands that contain natural vegetation (i.e., vegetation identified as Tier I, II, or III) and/or wetlands, and/or habitat occupied by covered species, other listed non-covered species, and/or narrow endemic species (City of Chula Vista 2003). According to the City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003), impacts to Tier I, II, and III habitats will be mitigated pursuant to HLIT mitigation standards contained in Table 5-3 of the City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003). Wetland impact mitigation ratios are included in Section 5.2.4 of the City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003).

However, the HLIT includes exemptions for specific types of development, which are exempt from the mitigation standards contained in the HLIT:

a. Development of a project area that is one acre or less in size and located entirely in a mapped development area outside of covered projects.

b. Development of a project area which is located entirely within the mapped development area outside covered projects, and where it has been demonstrated to the satisfaction of the Director of Planning and Building, or his/her designee, that no sensitive biological resources exist on the project area.

c. Development that is limited to interior modifications or repairs and any exterior repairs, alterations or maintenance that does not increase the footprint of an existing building or accessory structure, that will not encroach into identified sensitive biological resources during or after construction.

d. Any project within the development area of a covered project.

e. Any project that has an effective incidental take permit from the wildlife agencies.

f. Continuance of agricultural operations.

g. Brush management activities conducted in accordance the City of Chula Vista's MSCP Subarea Plan (City of Chula Vista 2022).

5.3 Direct Impacts

As described previously, implementation of either the Annexation or No Annexation scenario will result in impacts to the entire project site. In addition, off-site areas currently under the jurisdiction of either the City of Chula Vista or the City of San Diego also would be impacted (see Figure 1-4). While both scenarios include impacts to the same areas; the analysis of impacts requires the application of policies, plans and regulations specific to each jurisdiction.

In the following section, impacts to biological resources associated with the Annexation Scenario (in which the project site is annexed into the City of San Diego) are analyzed. The City of San Diego's Biology Guidelines will be applied to the project site as well as the off-site areas within the City of San Diego east of the project site. The City of Chula Vista's MSCP Subarea Plan will be applied in the analysis of impacts associated with the off-site area north of the project site that would remain in Chula Vista.

Subsequently, an analysis of impacts associated with the No Annexation Scenario (in which the project site remains under the jurisdiction of the City of Chula Vista) is provided in accordance with the City of Chula Vista's MSCP Subarea Plan. The City of Chula Vista's MSCP Subarea Plan will be applied in the analysis of impacts within the project site as well as the offsite areas north of the project site that would remain in Chula Vista. The City of San Diego's Biology Guidelines will be applied in the analysis of impacts associated with the off-site area east of the project site that would remain in the City of San Diego.

5.3.1 Annexation Scenario

5.3.1.1 Impacts to Vegetation Communities - Annexation Scenario

The impacts to vegetation communities and land cover types from the project total 23.37 acres. Of this, a total 22.92 acres of impacts would occur in the City of San Diego resulting from the project site and off-site area associated with road improvements, and an additional 0.45 acre of impacts would occur in the City of Chula Vista resulting from the off-site area associated with remedial

grading and trails. Table 4 summarizes the impacts to each vegetation community/land cover type within the project area.

Impacts to upland vegetation communities in the City of San Diego include 3.43 acre (Tier II) of Diegan coastal sage scrub (Tier II), 0.16 acre of Diegan coastal sage scrub: *Baccharis* dominated (Tier II), and 13.60 acres of non-native grassland (Tier IIIB). These vegetation communities are considered sensitive uplands by the City of San Diego's Biology Guidelines (City of San Diego 2018b). Therefore, impacts would be significant and mitigation would be required.

An additional 0.01 acre of Diegan coastal sage scrub: *Baccharis* dominated (Tier II) and 0.05 acre of impact to non-native grassland (Tier III) would occur in the City of Chula Vista. As the impacts to non-native grassland within the City of Chula Vista are less than 0.10 acre, impacts would be less than significant and would be exempt from the HLIT mitigation standards. However, impacts to Diegan coastal sage scrub: *Baccharis* dominated and non-native grassland associated with the entire project (0.17 acre and 13.65 acres, respectively) would collectively be significant; therefore, mitigation would be required to offset the project's total impact.

Impacts to wetland vegetation communities in the City of San Diego include 0.03 acre of mule fat scrub, 0.15 acre of southern willow scrub, 0.18 acre of emergent wetland, and 0.04 acre of disturbed wetland. These vegetation communities are considered sensitive wetlands by the City of San Diego's Biology Guidelines (City of San Diego 2018b). Therefore, impacts would be significant and mitigation would be required.

Impacts to land cover types in the City of San Diego include 4.48 acres of disturbed habitat (Tier IV), 0.64 acre of ornamental (Tier IV), and 0.23 acre of urban/developed (Tier IV). An additional 0.39 acre of impact to disturbed habitat (Tier IV) would occur in the City of Chula Vista. These land cover types are not considered sensitive by the City of San Diego's Biology Guidelines (City of San Diego 2018b) or City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003). Therefore, impacts would be less than significant and no mitigation would be required.

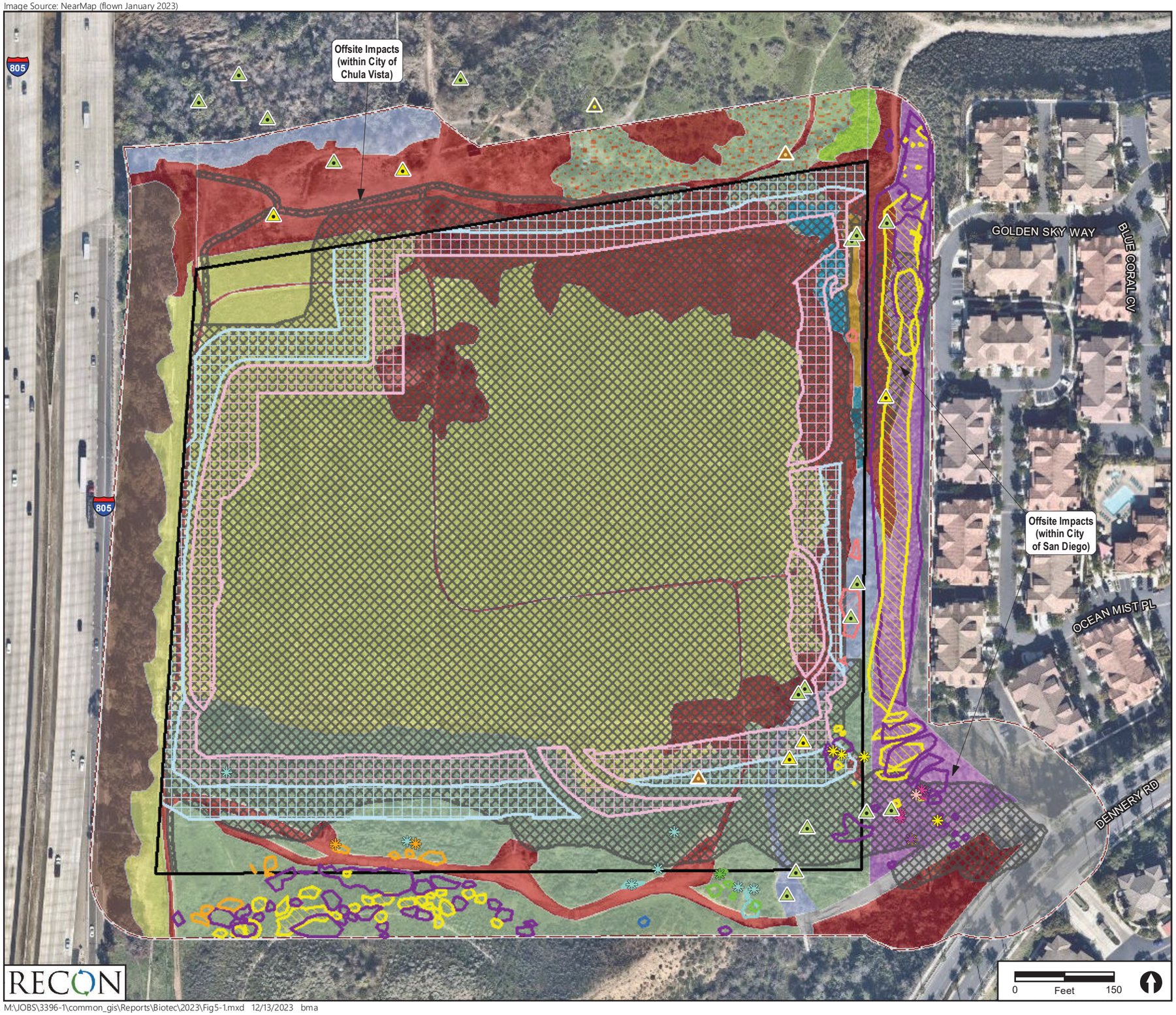
In addition, the entire brush management zone 1 occurs entirely inside the limits of disturbance for the project. Brush management zone 2 occurs partially outside of the limits of disturbance within Diegan coastal sage scrub (0.14 acre) and disturbed habitat (0.01 acre). Brush management 2 thinning and pruning activities are considered "impact neutral" and are therefore excluded from the total impact acreage.

5.3.1.2 Impacts to Sensitive Plants - Annexation Scenario

The project would result in direct impacts to six special-status plant species: Otay tarplant, San Diego marsh-elder, South Coast saltscale, San Diego bur-sage, ashy spike-moss, and San Diego County viguiera (Figure 5-1). All impacts to special-status plants would occur within the City of San Diego following annexation and would be located outside of the MHPA. No direct impacts are anticipated to occur to San Diego barrel cactus, small-flowered microseris, and California adolphia as these species occur outside of project impact area.

Table 4 Direct Impacts to Vegetation Communities and Land Cover Types (Annexation Scenario)									
Vegetation Community/ Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	City of Chula Vista MSCP Subarea Plan Tier	City of San Diego MSCP Subarea Plan Tier	Existing Project Area Acreage	City of San Diego Impacts			City of Chula Vista Impacts	Total Project Area Impacts (Acres)
					Project Site (acres)	Off-site Area (acres)	*Subtotal (acres)*	Off-site Area (acres)	
Upland Vegetation Communities									
Diegan coastal sage scrub	Coastal sage scrub	II	II	6.55	3.39	0.04	*3.43*	—	3.43
Diegan coastal sage scrub: *Baccharis*-dominated	Coastal sage scrub	II	II	0.92	0.16	—	*0.16*	0.01	0.17
Non-native grassland	Non-native grassland	III	IIIB	14.78	13.60	—	*13.60*	0.05	13.65
Wetland Vegetation Communities									
Arundo-dominated riparian	Riparian scrub	Wetlands	Wetlands	0.12	—	—	—	—	—
Mule fat scrub	Riparian scrub	Wetlands	Wetlands	0.11	0.03	—	*0.03*	—	0.03
Southern willow scrub	Riparian scrub	Wetlands	Wetlands	0.82	0.15	—	*0.15*	—	0.15
Emergent wetland	Natural flood channel	Wetlands	Wetlands	0.18	0.18	—	*0.18*	—	0.18
Disturbed wetland	Disturbed Wetland	Wetlands	Wetlands	0.05	0.04	—	*0.04*	—	0.04
Land Cover Types									
Disturbed habitat	Disturbed land	IV	IV	8.13	4.09	0.37	*4.48*	0.39	4.87
Eucalyptus woodland	Eucalyptus woodland	IV	IV	1.80	—	—	—	—	—
Ornamental	Disturbed land	N/A	IV	1.86	—	0.64	*0.64*	—	0.64
Urban/developed	Disturbed land	N/A	IV	1.53	—	0.23	*0.23*	—	0.23
Total				**36.85**	**21.64**	**1.28**	***22.92***	**0.45**	**23.37**

Image Source: NearMap (flown January 2023)



- Project Boundary
- Survey Area
- Project Impacts
- BMZ Zone 1
- BMZ Zone 2

Sensitive Wildlife

- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Least Bell's Vireo (*Vireo bellii pusillus*)
- Yellow-breasted Chat (*Icteria virens*)
- Yellow Warbler (*Setophaga petechia*)

Sensitive Plants

- California Adolphia (*Adolphia californica*)
- Otay Tarplant (*Deinandra conjugens*)
- San Diego County Viguiera (*Bahiopsis lacniata*)
- San Diego Barrel Cactus (*Ferocactus viridescens*)
- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Ashy Spike-moss (*Selaginella cinerascens*)
- Small-flowered Microseris (*Microseris douglasii* ssp. *platycarpha*)
- San Diego Marsh-elder (*Iva hayesiana*)
- South Coast Saltscale (*Atriplex pacifica*)

Vegetation Communities

- Arundo-Dominated Riparian
- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub: Baccharis-dominated
- Disturbed Habitat
- Disturbed Wetland
- Emergent Wetland
- Eucalyptus Woodland
- Mule Fat Scrub
- Non-Native Grassland
- Ornamental
- Southern Willow Scrub
- Urban/Developed

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FIGURE 5-1
Impacts to Biological Resources

a. Impacts to Otay Tarplant

Direct impacts to Otay tarplant would occur as a result of the project in the off-site area associated with road improvements. Otay tarplant populations vary year to year; however, based on 2022 surveys, impacts would occur to 14 individuals within 0.001 acre of occupied habitat. Impacts to this species, which is a narrow endemic under the City of San Diego MSCP Subarea Plan, would be significant and mitigation would be required.

b. Impacts to San Diego Marsh-Elder, South Coast Saltscale, San Diego Bur-Sage, Ashy Spike-Moss, and San Diego County Viguiera

Direct impacts would occur to San Diego marsh-elder, South Coast saltscale, San Diego bur-sage, ashy spike-moss, and San Diego County viguiera within the project site and off-site area associated with road improvements. Project impacts would be limited to only a portion of the populations on-and off-site within the development footprint. Thus, these species would persist both on-site within the Covenant of Easement area, as well as within off-site areas of habitat. In addition, suitable habitat within the project impact area is limited to 8.6 acres of Diegan coastal sage scrub (including *Baccharis*-dominated variant), disturbed habitat, and southern willow scrub which comprises a small fraction of the habitat available to this species identified in the MSCP MHPA both at a local level (2,515 acres in southern MSCP area) and on a regional scale (24,147 acres total) (City of San Diego 1997). Therefore, project impacts are not anticipated to reduce species' populations below self-sustaining levels and would not be significant.

5.3.1.3 Impacts to Special-Status Wildlife Species - Annexation Scenario

The project has potential to result in direct impacts to thirteen special-status wildlife species: least Bell's vireo, coastal California gnatcatcher, Cooper's hawk, burrowing owl, yellow-breasted chat, yellow warbler, western bluebird, orange-throated whiptail, San Diego tiger whiptail, pallid bat, Mexican long-tongued bat, western mastiff bat, and Crotch's bumble bee (see Figure 5-1). Potential impacts would occur within the City of San Diego to all thirteen species outside of the MHPA. Within the City of Chula Vista, potential impacts would occur to burrowing owl, San Diegan tiger whiptail, pallid bat, Mexican long-tongued bat, western mastiff bat, and Crotch's bumble bee; all outside of any 75% or 100% Conservation Areas.

a. Impacts to Least Bell's Vireo

Least Bell's vireo was observed within the project site and off-site areas and has a high potential to nest in suitable southern willow scrub, mule fat scrub, and *Arundo*-dominated riparian within the project impact area. Therefore, the project has the potential for direct impacts to any individuals occurring within suitable habitat. Significant direct impacts would also result from removal of approximately 0.28 acre of available foraging and nesting habitat outside of the MHPA for which habitat-based compensatory mitigation would be required. Species-specific mitigation to ensure the avoidance of nesting LBV is also required and described in Section 6.1.3.1.

b. Impacts to Coastal California Gnatcatcher

Coastal California gnatcatcher was observed within the project site and surrounding area and has a high potential to nest within the Diegan coastal sage scrub and Diegan coastal sage scrub: *Baccharis* dominated within the project impact area. Significant direct impacts would result from removal of approximately 3.82 acres of available foraging and nesting habitat outside of the MHPA for which habitat-based compensatory mitigation would be required. Habitat-based compensatory mitigation is described in Section 6.1.1.

c. Impacts to Cooper's Hawk

Cooper's hawk has a moderate potential to nest within the southern willow scrub within the project impact area outside of the MHPA, as well as utilize the project impact area for foraging. Considering the abundance of foraging habitat in the area and large foraging range for Cooper's hawk, project impacts to Cooper's hawk foraging would be less than significant. Establishment of the 300-foot impact avoidance area identified within the MSCP area specific management directives would be required as a project condition of approval. Therefore, no direct impacts to Cooper's hawk are anticipated and no mitigation would be required.

d. Impacts to Burrowing Owl

Burrowing owl has a moderate potential to occur within the non-native grassland and disturbed habitat within the project impact area outside of the MHPA. Based on current site conditions, the project impact area lacks suitable burrows for nesting and ground squirrel activity. However, this species is known to occur within one mile of the site and portions of the non-native grassland and disturbed habitat on-site contain suitable low-lying vegetation that have a moderate potential to support foraging. This species foraging range is relatively small considering they typically forage near their burrows, and local availability of foraging habitat in the foraging range of this species is limited. Potential direct impacts to nesting and foraging for this species would be significant and mitigation would be required as described in Section 6.1.3.1. As detailed in that section, mitigation would include a pre-construction survey to verify that no burrowing owls have occupied the project area. The project would also adhere to the MSCP conditions of coverage for this species, which include avoidance, relocation, and habitat-based mitigation. The project would be providing habitat-based compensatory mitigation is described in Section 6.1.1.

e. Impacts to Yellow-Breasted Chat and Yellow Warbler

Yellow warbler and yellow-breasted chat were observed within the project impact area. These species have moderate potential to nest within the southern willow scrub and mule fat scrub habitats of the project impact area. The project impacts to yellow-breasted chat and yellow warbler habitat and nesting would be potentially significant and would require mitigation as described in Section 6.1.3.1. The project would be providing habitat-based compensatory mitigation is described in Section 6.1.1.

f. Impacts to Western Bluebird

Western bluebird was observed within the project area; however, the project impact area lacks suitable large trees with cavities for nesting and thus no direct impacts would occur to nesting western bluebird. While the project site may provide for western bluebird foraging, this species is adequately conserved by the MSCP and associated MHPA; therefore, impacts to foraging habitat outside the MHPA would be less than significant and no mitigation would be required.

g. Impacts to Orange-Throated Whiptail and San Diego Tiger Whiptail

Orange-throated whiptail and San Diego tiger whiptail have a moderate potential to occur within the project impact area. Therefore, the project has potential to result in direct impacts to these species through incidental mortality during construction activities and through the removal of suitable habitat outside of the MHPA. However, these species were not observed during biological surveys conducted between 2020 and 2022 and likely only occur on-site in low numbers and, thus, the project would be expected to result in the loss of very few individuals, if any. Suitable habitat within the project impact area is limited to 3.6 acres of Diegan coastal sage scrub which comprises a small fraction of the coastal sage scrub habitat available to these species identified in the MSCP MHPA both at a local level (1,257 acres in the southern MSCP area) and on a regional scale (18,951 acres total) (City of San Diego 1997). Therefore, the potential loss of these individuals would not reduce the population to less than self-sustaining and would not be significant and no species-specific mitigation would be required.

h. Impacts to Pallid Bat, Mexican Long-Tongued Bat, and Western Mastiff Bat

Pallid bat, Mexican long-tongued bat, and western mastiff bat have a moderate potential to forage within the project impact area; however, none are expected to use any portion of the project impact area for roosting or for a maternity colony due to lack of rock crevices, cliffs, mines, or man-made structures suitable for roosting. Additionally, because no nighttime construction or maintenance activities would occur (during foraging), direct impacts to individuals during construction activities are unlikely. Suitable foraging habitat within the project impact area is limited to 17.65 acres of Diegan coastal sage scrub (including *Baccharis*-dominated variant), non-native grassland, and southern willow scrub which comprises a small fraction of the habitat available to this species identified in the MSCP MHPA both at a local level (2,630 acres in southern MSCP area) and on a regional scale (26,642 acres total) (City of San Diego 1997). Therefore, this loss of foraging habitat on-site would be less than significant, and no species-specific mitigation would be required.

i. Impacts to Crotch's Bumble Bee

No Crotch's bumble bee has been observed on the site. Crotch's bumble bee has a moderate potential to forage and low potential to nest within the project impact area. Considering the project has a low potential to support nesting, the project would not result in impacts to Crotch's bumble bee nesting habitat. However, the project has the potential for direct impacts to any individuals occurring within suitable foraging habitat and would result in impacts to 4.65 acres of potential foraging habitat in the project impact area. As a candidate for listing, the species is temporarily afforded the same protections as a state-listed endangered or threatened species. Thus, direct impacts to foraging habitat for this species would be significant should this species become state

listed as threatened or endangered and during its candidacy for which habitat-based compensatory mitigation would be required. Species-specific mitigation to avoid unauthorized take of Crotch's bumble bee is also required and described in Section 6.1.3.1.

5.3.1.4 Impacts to Wildlife Corridors and Habitat Linkages - Annexation Scenario

The project site likely functions for local wildlife movement but lacks regional value as a wildlife corridor due to the limited amount of native habitat and its proximity to existing residential and commercial development, roads, and highways. It does not act as a significant linkage to off-site areas of habitat given the adjacency on three sides of development.

The project is located 197 feet south of a 75% Conservation Area associated with the Otay River, which may provide opportunities for regional wildlife movement. However, the project would not cause direct impacts to native vegetation communities within the riparian corridor and is separated by the 75% Conservation Area by dense, non-native vegetation (e.g., giant reed, black mustard).

The project's implementation of measures to protect biological resources during construction, as described in Section 6.1.1.1, is expected to minimize edge effects with little to no effect on the surrounding habitats. Specifically, disturbances to habitat such as construction-related runoff and ground disturbance would be minimized through the implementation of a biological monitoring program and proper BMPs. As a result, the project would not cause any loss of functionality of the Otay River wildlife corridor, therefore, impacts to wildlife corridors would be less than significant and no mitigation would be required.

5.3.1.5 Impacts to Jurisdictional Resources - Annexation Scenario

Impacts to potential jurisdictional resources within the project area would be avoided and minimized to the extent feasible. Nonetheless, impacts to potential jurisdictional resources would occur with project implementation. A total of 0.40 acre of impacts to potential RWQCB wetland waters, CDFW riparian, and City of San Diego wetland would occur with project implementation (Figure 5-2).

Table 5 summarizes the impacts within the project impact area by jurisdiction following annexation. Impacts to potential jurisdictional resources would be significant and mitigation would be required.

Table 5
Impacts to Jurisdictional Resources within the Project Impact Area (Annexation Scenario)

Jurisdictional Resource	Acreages by Jurisdiction[a]		
	RWQCB	CDFW	City of San Diego
Wetlands/Riparian Habitat			
Arundo-dominated riparian	—	—	—
Mule fat scrub	0.03	0.03	0.03
Southern willow scrub	0.15	0.15	0.15
Emergent wetland	0.18	0.18	0.18
Disturbed wetland	0.04	0.04	0.04
Total	**0.40**	**0.40**	**0.40**

CDFW = California Department of Fish and Wildlife;
RWQCB = Regional Water Quality Control Board.
[a]Due to overlap of resource jurisdictions, columns should not be added together.

Image Source: NearMap (flown January 2023)



Project Boundary
Survey Area
Project Impacts
BMZ Zone 1
BMZ Zone 2
RWQCB Wetland Waters of the State/ CDFW Riparian/ City of San Diego Wetland/ City of Chula Vista Wetland
CDFW Riparian/ City of San Diego Wetland/ City of Chula Vista Wetland

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FIGURE 5-2
Impacts to Jurisdictional Resources

a. Impacts to City of San Diego Wetlands Outside of the Coastal Overlay Zone

The City of San Diego Biology Guidelines (2018a) and the ESL Regulations state that impacts to wetlands should be avoided and unavoidable impacts should be minimized to the maximum extent practicable. A wetland buffer shall be maintained around all remaining wetlands as appropriate to protect the functions and values of the wetland.

For projects in the City of San Diego, outside of the Coastal Overlay zone, impacts to wetlands, excluding vernal pools outside of the MHPA, require a deviation from the ESL wetland regulations (City of San Diego 2018a). Deviations from the wetland regulations shall not be granted unless the development qualifies to be processed as one or more of the following three options: Essential Public Projects Option, Economic Viability Option, and Biologically Superior Option. The project includes a wetland deviation under the Biologically Superior Option. Both the City of San Diego and the Wildlife Agencies would need to review and concur with the Biologically Superior Option impact analyses, as discussed below.

Biologically Superior Option

In order to qualify as the Biologically Superior Option, a project deviating from wetland regulations must: (1) fully describe and analyze a no project alternative, a wetlands avoidance alternative, and a biologically superior alternative demonstrating that the project would result in the conservation of a biologically superior resource compared to strict compliance with the provisions of the ESL; (2) demonstrate that the wetland resources being impacted by the project shall be limited to wetlands of low biological quality; (3) demonstrate that the project and associated mitigation conform to the requirements for this option that include avoidance, minimization, and compensatory measures which would result in a biologically superior net gain in overall function and values of the type of wetland resource being impacted and/or the biological resources to be conserved; and (4) obtain concurrence from the USFWS and the CDFW (Wildlife Agencies). These four criteria are described below.

Criterion 1

No Project Alternative

Under the no project alternative, the project proposed in this report would not be constructed. The site would remain undeveloped but would likely continue to undergo regular human disturbance from invasive species, homeless encampments, and trash.

Wetlands Avoidance Alternative

A wetlands avoidance alternative was considered for the project site. The proposed project impacts wetlands via the proposed main entrance road from Dennery Road and a gated secondary emergency access road, which are necessary to meet applicable fire codes for adequate emergency access per the City of San Diego Street Design Manual (City of San Diego 2017). The main entrance road is classified as a Class III Collector and the Street Design Manual (City of San Diego 2017) requires a 40-foot curb-to-curb width and 12 percent maximum grade. Due to existing topography and desire to minimize the impact footprint in sensitive habitats, the primary access road to the proposed

residential development would be at the maximum 12 percent grade. The secondary emergency access road connects to a private driveway on an existing residential development that is situated higher than the project site. This secondary emergency access would also be provided at the maximum allowed grade (15 percent maximum grade allowed for emergency vehicles) to the existing private driveway. Due to the location of I-805 to the west and urban development to the south and east, these are the only feasible access routes to the project site. The only other secondary access would be to construct an access road north across the Otay River, which would result in greater wetland impacts considering its higher quality habitats and larger wetland area.

To avoid the project impacts to wetlands from the proposed access roadways, the access would be redesigned to include bridging over the wetlands. This would involve the installation of two bridges to provide wetland crossings for the site's primary and secondary access, as well as the installation of retaining walls. To allow for bridging with complete wetlands avoidance would require a substantially reduced project footprint. Due to the degraded and constrained nature of the existing wetland, bridging the wetland would not be biologically superior relative to the off-site Conceptual Wetland Mitigation Plan and Long-term Management Plan in Spring Canyon (Attachment 13) as discussed below. Specifically, restoration of Spring Canyon is consistent with the Specific Management Directives for Southern Otay Mesa in the City of San Diego MSCP Subarea Plan, which identifies restoration of disturbed areas in Spring Canyon as a priority (City of San Diego 1997). As discussed in greater detail below under the Biologically Superior Alternative, Spring Canyon provides habitat for riparian birds, including least Bell's vireo, in a regional corridor with natural hydrologic inputs and thus is preferable for conservation. The on-site wetlands are surrounded by dense urban development in a narrow, linear corridor and are sourced primarily by urban runoff. Additional alternatives to reduce wetland impacts that were evaluated at the request of USFWS and CDFW are further discussed in Attachment 14.

Biologically Superior Alternative

The project has been designed to minimize wetland impacts to the greatest extent feasible through siting and design. The project would conserve and provide long-term management for 0.25 acre of the on-site City of San Diego wetlands, including the higher quality areas of southern willow scrub supporting willow stands with San Diego marsh-elder in the understory, as well as mule fat scrub and disturbed wetlands that provide some connectivity between the willows and the Otay River to the north (Attachment 15; Figure 5-3). The primary and secondary access roads have been designed using minimum road widths and to cross the wetlands perpendicular at their narrowest points in areas supporting lower quality wetlands, such as the disturbed wetland, emergent wetland, and mule fat scrub containing dense stands of non-natives and the portion of the southern willow scrub containing trash and encampments. The development has been sited to the farthest west possible on the project site considering constraints associated with the I-805 California Department of Transportation right-of-way. Additionally, the main access road design near the wetlands incorporates the steepest manufactured slopes allowable (2:1) and a 20-foot retaining wall to minimize grading into the wetlands. To avoid brush management (zones 1 and 2) within the on-site wetlands, the project was designed to incorporate a 6-foot fire-rated masonry block wall along the entire easternmost edge of the development footprint to provide alternative compliance for brush management, ensuring that no thinning or brush management activities occur within the on-site

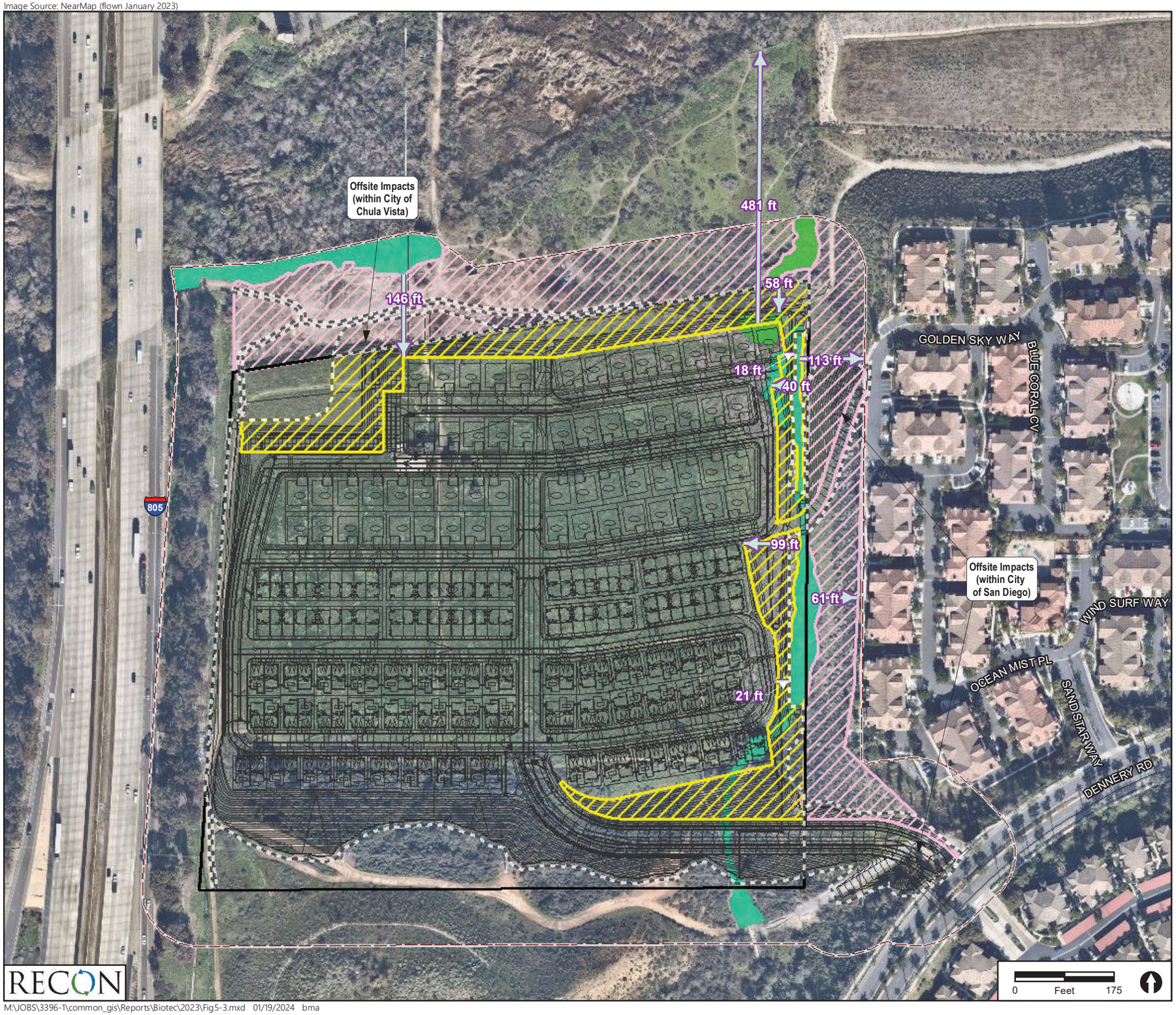
wetlands (see Attachment 15: Figure 6). The block wall would also ensure that no human intrusion would occur in the on-site wetlands from the adjacent development.

The project incorporates design features to maintain existing flows into the on-site City of San Diego wetlands, while providing pollutant control and improving drainage conditions both on and off-site. To provide pollutant control, flows from the proposed development area would be directed away from the on-site City of San Diego wetlands via two vegetated biofiltration basins and a modular wetlands unit, which consists of a manufactured structure with plantings and media to filter water (see Figure 5-3). Existing flows into the on-site wetlands would be maintained via an underground culvert under the proposed entrance road. The culvert would direct off-site flows to the north to a low-flow splitter that would regulate the amount of run-on flowing into the on-site City of San Diego wetlands. In low flow conditions, exiting drainage flows to the wetland would be maintained via the low-flow splitter. During high flow conditions, excess drainage would be directed to an adjacent biofiltration basin and piped through the development, before sheet flowing north via a headwall with rip-rap along the northern project boundary.

In addition, a culvert under the secondary access road would maintain flows between the on-site City of San Diego wetlands, before flowing north into an additional culvert that directs flows to rip-rap, before sheet flowing north towards the Otay River (see Figure 5-3). These drainage improvements would control the rate of discharge and reduce erosion and siltation, as well as to provide pollutant control prior to discharge to the north. Thus, the proposed wetland buffers in combination with the proposed drainage improvements would improve the drainage conditions into the on-site City of San Diego wetlands in a manner that would also reduce erosion and siltation issues into the Otay River off-site, improving the functions of both the on-site City of San Diego wetlands and the surrounding area.

The on-site City of San Diego wetlands would be preserved in perpetuity by a Covenant of Easement, which would restrict future development and ensure preservation in perpetuity. The Covenant of Easement will contain language allowing for long-term maintenance of the wetland buffer and on-site City of San Diego wetlands. Furthermore, walls, fencing, and steep manufactured slopes would prevent human intrusion from the adjacent development. The on-site biofiltration basins and modular wetlands unit would be maintained by the Permittee under a stormwater maintenance agreement, to ensure pollutant control is maintained. The Permittee would also be required to comply with the standards for brush management within the wetland buffer, and signage would be installed indicating applicable standards for wetlands avoidance during brush management. Management of the wetland buffer and on-site City of San Diego wetlands would be maintained by the Homeowners Association in accordance with the Long-term Management and Monitoring Program, which contains provisions for weed control, brush management, trash and debris removal, and access control (see Attachment 15). Thus, project design features related to the upland buffer would be maintained, and the City of San Diego wetlands would be preserved in perpetuity.

Image Source: NearMap (flown January 2023)



Project Boundary
Survey Area
Project Impact Limits
Site Plan
Wetland Buffer Distance
Wetland Buffer Onsite
Wetland Buffer Offsite
RWQCB Wetland Waters of the State/ CDFW Riparian/ City of San Diego Wetland/ City of Chula Vista Wetland
CDFW Riparian/ City of San Diego Wetland/ City of Chula Vista Wetland

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FIGURE 5-3
Wetland Buffers

In addition, mitigation for City of San Diego wetlands would be provided off-site in Spring Canyon on lands owned by the applicant, which would provide restoration of 0.8 acre of riparian scrub habitat (see Attachment 13). As a project design feature, the project would pursue invasive species removal in upstream locations off-site in order to support the long-term viability of the restoration effort. The wetland mitigation would restore degraded areas of Spring Canyon supporting large stands of invasive species such as tamarisk, castor bean (*Ricinus communis*), and pepper trees (*Schinus* spp.) to high quality riparian scrub habitat with diverse native wetland vegetation layers and plant diversity. This would expand and enhance potentially suitable habitat to support least Bell's vireo and yellow warbler, which are known to occur in Spring Canyon immediately southwest of the restoration area and in the surrounding area.

The existing riparian habitat within the restoration area ranges from approximately 70 to 150 feet in width, with adjacent uplands and conserved lands owned by the City of San Diego providing a buffer greater than 400-feet in width. Restoration would be consistent with the priorities set forth in the City of San Diego MSCP Subarea Plan for Southern Otay Mesa, which includes the prioritization of restoration of disturbed areas in Spring Canyon, which is a regional corridor identified by the MSCP. Restoration would also be accompanied by long-term management and funding to ensure preservation of the biologically superior conditions in perpetuity. The project would provide a biologically superior design by avoiding and preserving the highest quality wetlands on-site, while incorporating mitigation for unavoidable wetland impacts through habitat restoration of the same type of wetland resource being impacted (e.g., riparian scrub) in a regional corridor that provides greater functions and values for wildlife such as least Bell's vireo and yellow warbler.

Although the proposed 0.8 acre of proposed restoration would meet the City's requirement that 1:1 of the mitigation effort be provided as restoration or creation. To ensure no net loss of wetlands subject to the jurisdiction of RWQCB, it is anticipated that the project would also provide an additional 0.40 acre of wetland creation bank credits to satisfy state (CWA Section 401) wetland permits. It is anticipated that these mitigation credits would be provided via the San Luis Rey River Mitigation Bank, which is the closest bank with available credits (Attachment 16). However, the project would endeavor to pursue credits at the closest available mitigation bank (e.g., Rancho Jamul Mitigation Bank or Otay River Mitigation Bank) to the project site should credits become available at these banks prior to impacts (see Attachment 16).

Wetland Buffer

Along the eastern project boundary, the project incorporates a wetland buffer consisting of a transitional area with a biofiltration basin and manufactured slopes containing native vegetation and a 6-foot block wall separating the proposed development from the City of San Diego wetlands (see Figures 5 and 6 of Attachment 15). The buffer would range from 21 to 99 feet from the higher quality southern willow scrub, and a buffer of 18 to 40 feet from lower quality mule fat scrub and disturbed wetlands. The manufactured slopes would be planted with a native coastal sage scrub species mix that includes coastal sagebrush, California buckwheat, deerweed (*Acmispon glaber*), bush sunflower (*Encelia californica*), red monkeyflower (*Diplacus aurantiacus*), and purple needlegrass (*Stipa pulchra*) with native annuals intermixed. The biofiltration basin would also include a transitional native plant mix that includes San Diego marsh-elder, mule fat, giant wildrye (*Elymus condensatus*), scarlet monkeyflower (*Mimulus cardinalis*), yerba mansa (*Anemopsis californica*), sedges (*Carex* spp.), rushes

(*Juncus* spp.), and other native species. The establishment of native vegetation would improve the native diversity and habitat quality of the buffer, which is heavily dominated by non-native, invasive species such as black mustard and crown daisy.

The proposed wetland buffer would also provide similar functions as the existing wetland buffer provided from the RiverEdge Terrace Development, which consists of manufactured slopes landscaped with native upland plant species. The off-site buffer ranges from 61 to 113 feet, for an average of 87 feet. To the east, residences were built at the top of the manufactured slope with wrought iron fencing separating the development from the adjacent slope. Similar to the existing wetland buffer conditions to the east, the project would incorporate a varied width buffer ranging from 18 to 99 feet with separation provided by a block wall between the development area and the wetland. Thus, the proposed wetland buffers provide similar function as the off-site buffer to the east. The project impacts within the off-site manufactured slopes associated with the secondary access road within the existing buffer to the east would be revegetated with the native coastal sage scrub species mix maintaining the existing function of the buffer. The manufactured slopes associated with the main access road would similarly be revegetated with a native coastal sage scrub species mix, supporting buffer function. Therefore, the proposed buffers would be adequate to protect the functions and values of the City of San Diego wetlands on-site, while improving native diversity and habitat functions of the buffer.

The project would also maintain a distance of approximately 146 feet to 481 feet from the off-site southern willow scrub associated with the Otay River, as well as 58 feet to off-site *Arundo*-dominated riparian (see Figure 5-3). The development area would be separated from the wetland and wetland buffer by walls and steep manufactured slopes to preclude human intrusion. Furthermore, peeler pole fencing would be installed along the trail associated with Otay Valley Regional Park to preclude unauthorized access.

Criterion 2

Demonstration of Project Impacts Limited to Wetlands of Low Quality

Under the Biologically Superior Option, impacts to wetlands may be considered if the resources are of a low quality, and through project design and/or mitigation a biologically superior project would result. Mitigation for impacts to City of San Diego wetlands would occur off-site in Spring Canyon through permittee responsible mitigation (e.g., habitat restoration). The guidelines specify that the biological quality of all wetlands is assessed using the criteria listed below. Corresponding project details follow each criterion below.

I. Criteria to determine biological quality of all wetland types include, but are not limited to, the following:

   a. Use of the wetland by federal and/or state endangered, threatened, sensitive, rare and/or other indigenous species;

      Discussion: A portion of the City of San Diego wetlands on-site provide habitat for riparian bird species, including least Bell's vireo and yellow warbler, as well as San Diego marsh-elder. The majority of the City of San Diego wetlands subject to impacts (0.22 acre)

comprise disturbed and emergent wetlands that are dominated by non-native species and have limited value for these species. The remaining 0.18 acre of impacts supports southern willow scrub and mule fat scrub that contains some stands with willows and mule fat that provide habitat for least Bell's vireo and yellow warbler. However, the biological quality of these areas is considered relatively low for these species due to the prevalence of invasive species and extensive homeless encampments, trash, and trails. In addition, the willow and mule fat stands are relatively linear and isolated, ranging from approximately 10 to 55 feet in width, and are ultimately bounded by roads, development, and utility lines to the west, south, and east, which limits wildlife movement.

Furthermore, habitat for least Bell's vireo, yellow warbler, and other riparian birds would continue to be provided on-site through preservation of the highest quality on-site wetland resources. The project would preserve 0.20 acre of City of San Diego wetlands, which includes southern willow scrub and mule fat scrub that supports least Bell's vireo, yellow warbler and San Diego marsh-elder. Preservation of the conserved portion of the drainage in a Covenant of Easement would maintain north-south connectivity from the preserved wetlands on-site to the Otay River to north. Additionally, where impacts were unavoidable, the project incorporates wetland and upland plantings within expanded wetland buffers as previously described. Additional high-quality habitat for least Bell's vireo, yellow warbler, and other wildlife also occurs approximately 197 feet off-site in the Otay River, which is designated as MHPA by the City of San Diego MSCP Subarea Plan and 75% and 100% Conservation Areas by the City of Chula Vista MSCP Subarea Plan. The riparian habitat in the Otay River north of the project site consists primarily of native willows, ranges from approximately 230 to 440 feet in width, and is part of a larger regional east-west wildlife corridor, providing higher biological quality and habitat value for wildlife in the immediate project area.

For unavoidable wetland impacts, the proposed mitigation would provide habitat restoration in Spring Canyon, a regional wildlife corridor identified by the MSCP (see Attachment 13). Both least Bell's vireo and yellow warbler are known to occur in riparian habitats adjacent to the mitigation area (see Attachment 13). The proposed mitigation would consist of restoring riparian scrub in areas of non-native grassland and disturbed habitat, and re-establishing riparian scrub in disturbed riparian habitat dominated by invasive species, which would increase the amount of habitat available to support least Bell's vireo, yellow warbler, and other riparian bird species. The restoration area would substantially increase the quality of the Spring Canyon drainage through removal of non-native species. Dominant non-native species include tamarisk, castor bean, and pepper trees, with instances of crown daisy, and other non-native annuals. Restoration of the drainage would remove non-native, invasive species which occupy approximately 40 percent of the drainage and replace these species with suitable wetland plant species (see Attachment 13).

The Spring Canyon area is suitable for mitigation because the existing riparian habitat within the restoration area ranges from approximately 70 to 150 feet in width, with adjacent uplands and conserved lands owned by the City of San Diego providing a buffer greater than 400 feet in width. Compared to the impacted wetland habitat, which consists

of degraded wetlands in an isolated corridor, the proposed mitigation habitat would provide greater functions and values and optimize long-term viability of wildlife such as least Bell's vireo and yellow warbler through higher quality wetlands with connectivity between larger natural open spaces with both wetland and upland habitat. In addition, restoration of this area is consistent with the Specific Management Directives for Southern Otay Mesa in the City of San Diego MSCP Subarea Plan, which identifies restoration of disturbed areas in Spring Canyon as a priority (City of San Diego 1997). Thus, the mitigation would provide biologically superior functions and values for wildlife when compared to the wetlands avoidance alternative.

b. Diversity of native flora and fauna present (characterizations of flora and fauna must be accomplished during the proper season, and surveys must be done at the most appropriate time to characterize the resident and migratory species);

Discussion: The on-site City of San Diego wetlands support a moderate diversity of native plant species, including willows, mule fat, curly dock, and San Diego marsh-elder. However, the City of San Diego wetlands also contain and are bordered by dense stands of black mustard and crown daisy, with scattered pampas grass (*Cortaderia selloana*), Mexican fan palm (*Washingtonia robusta*), and giant reed. Disturbance from homeless encampments, unauthorized trails, and trash are also prevalent. In addition, the persistence of native vegetation within the City of San Diego wetlands is likely due to runoff from the surrounding development based on the project's hydrology study (Project Design Consultants 2023), as well as historic wetland mapping (as detailed further below). Thus, diversity and habitat quality of the City of San Diego wetlands on-site are considered low relative to both the adjacent wetlands associated with the Otay River, which provide more expansive riparian habitat dominated by willows and the wetlands present within the proposed mitigation area in Spring Canyon.

The project would preserve a portion of the southern willow scrub with higher-quality stands of willows and undisturbed understory dominated by San Diego marsh-elder, as well as other areas of mule fat scrub and disturbed wetland habitat. For unavoidable wetland impacts, the project would mitigate off-site through restoration of mule fat scrub and southern riparian scrub habitat in Spring Canyon. The proposed mitigation habitat would provide a higher diversity of native flora and fauna species relative to the impacted wetlands on-site (see Attachment 13). The mitigation habitat would consist of diverse native wetland vegetation layers supporting several willow species, mule fat, and blue elderberry (*Sambucua nigra* ssp. *caerulea*) with a native understory consisting of western ragweed (*Ambrosia psilostachya*), mugwort (*Artemisia douglasiana*), California rose (*Rosa californica*), and wild grape (*Vitis girdiana*). It is anticipated that the diversity of native plants would provide greater functions and values to support a diversity of wildlife, including riparian bird species such as least Bell's vireo and yellow warbler, which have been observed in the mitigation area.

c. Enhancement or restoration potential;

Discussion: While there is potential to restore or enhance the on-site wetlands, this option would not be biologically superior as project mitigation. As detailed under Criterion 1, preservation of the City of San Diego wetlands would provide a narrow, linear riparian corridor, ranging approximately 15 to 55 feet in width, surrounded by dense urban development. While habitat restoration in this area could increase the narrower portions of the riparian corridor in width to some degree, a utility easement located in the southern portion of the drainage limits the potential for expansion and the overall corridor width (including buffer) would be less than 400 feet wide for a distance greater than 500 feet, and thus would be considered isolated per the City of San Diego's Biology Guidelines and not suitable as mitigation.

Furthermore, the on-site wetlands are present largely due to urban run-off from the medical facility to the south and lacks natural hydrology (as detailed further below). Additionally, the wetlands on-site are located in an area surrounded by urban development outside of the MHPA and are present largely due to urban run-off from the medical facility to the south. Thus, the project site lacks natural hydrology to support expansive riparian restoration on-site. Additional alternatives to provide wetland mitigation off-site adjacent to the Otay River were also evaluated at the request of USFWS and CDFW but determined to be infeasible due to existing contamination and other constraints associated with the parcel being owned by the City of Chula Vista (see Attachment 13).

The project has incorporated expanded wetland buffers and upland and wetland plantings within slopes adjacent to the avoided on-site wetlands to retain the existing function and enhance the values of the on-site drainage. Avoidance measures and design features have been incorporated to preserve the on-site drainage to the maximum extent possible. The on-site drainage would be placed in a covenant of easement to ensure it is protected in perpetuity. However, due to the isolated nature of the on-site wetland and considering the surrounding conditions (see additional discussion below), the proposed mitigation would occur within Spring Canyon, a regional riparian corridor identified by the MSCP, which provides higher enhancement and restoration potential. Furthermore, restoration of this corridor is identified as a regional priority in the City of San Diego MSCP Subarea Plan as discussed above under Criterion 2a (City of San Diego 1997).

As noted above and in the Wetland Mitigation Plan (see Attachment 13), in addition to the 0.80-acre restoration of City of San Diego wetlands as mitigation for project impacts, the project would pursue invasive species removal in upstream locations off-site as a project design feature in order to support the long-term viability of the Spring Canyon restoration effort. The wetland mitigation would restore degraded areas of Spring Canyon to high quality riparian scrub within an unconstrained corridor with adjacent uplands and conserved lands owned by the City of San Diego providing a buffer greater than 400 feet in width. Thus, this area provides a more optimal configuration for restoration to support the long-term viability of on-site sensitive biological resources such as least Bell's vireo and yellow warbler and restoration of Spring Canyon would be biologically superior to restoration within the project site.

d. Habitat function/ecological role of the wetland in the surrounding landscape, considering:

- The current functioning of the wetland in relation to historical functioning of the system; and
- Rarity of the wetland community in light of the historic loss and remaining resource;

Discussion: Historically from approximately 1968 until 2003, the project site was utilized for agriculture. Based on historic aerials, this present-day wetland area appears to have consisted of uplands, as no riparian canopy is visible on aerial photographs taken in 1981, prior to the grading of the adjacent Kaiser medical offices (Figure 5-4a). Aerial photographs taken subsequent to the completion of the adjacent Kaiser medical offices in 2000 and RiverEdge Terrace in 2014 show expansion of the City of San Diego wetlands on-site (Figures 5-4b and 5-4c). This is further supported by prior biological surveys conducted within the project site. In 2011, subsequent to construction of the Kaiser medical offices and prior to the development of the adjacent RiverEdge Terrace property, a total of 0.23 acre of City of San Diego wetlands (mule fat scrub and southern willow scrub) were mapped within the project site in 2011 (RECON 2011).

Additional biological surveys conducted subsequent to construction of the RiverEdge Terrace in 2017, 2020, and 2022 showed expansion of the City of San Diego wetlands each consecutive year (RECON 2017; Dudek 2022). These changes are anticipated to be due to increased hydrology from urban runoff from the developments to the south and east, which are the primary source of hydrology within the project site based on the project's drainage study (Project Design Consultants 2023), as opposed to natural hydrologic conditions. Thus, the current functioning of the on-site wetlands exceeds the historic functioning of the system, which likely did not support riparian birds due to lack of suitable habitat and the previous agricultural use of the site. In addition, the project would preserve a portion of the on-site southern riparian scrub and mule fat scrub and additional southern riparian scrub habitat is present off-site in the Otay River, as described above. The preserved on-site wetlands maintain connectivity with the more expansive riparian habitat off-site associated with the Otay River and thus would continue to support the current functioning of the wetlands as riparian bird habitat. Thus, the remaining resources would provide similar habitat functions as the impacted wetland, and thus the impacted wetlands would not be considered rare in light of the remaining higher-quality biological resources on and adjacent to the site.

Image Source: USGS (flown November 1981)



Project Boundary

RECON

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FIGURE 5-4a
Historic Wetlands 1981

Image Source: USGS, Google Earth (flown February 2000)



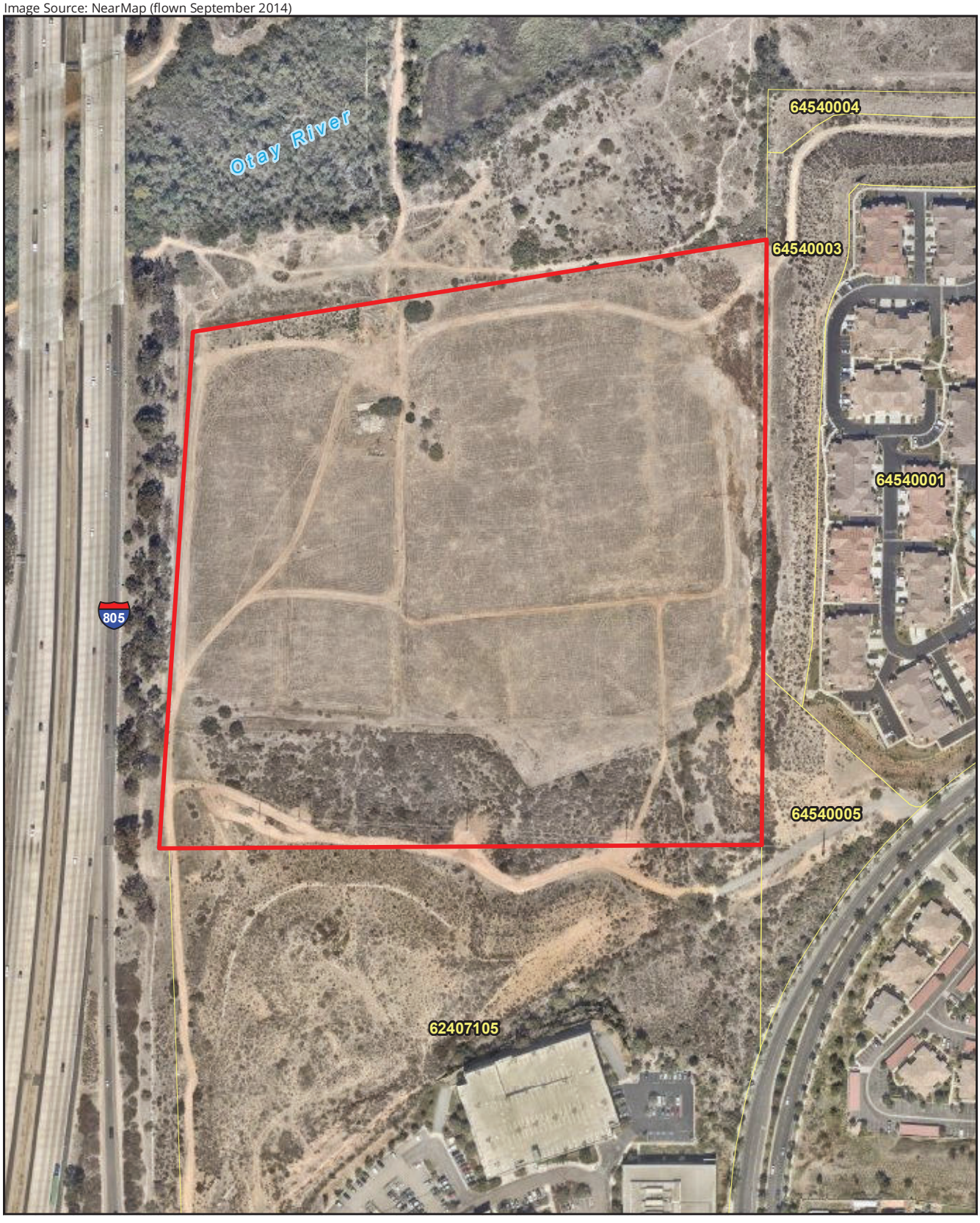
Project Boundary

RECON

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FIGURE 5-4b
Historic Wetlands 2000

Image Source: NearMap (flown September 2014)



Project Boundary

RECON

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FIGURE 5-4c
Historic Wetlands 2014

The project's proposed mitigation would occur in the Spring Canyon, a regional riparian corridor that has been identified as a priority for restoration by the City of San Diego MSCP Subarea Plan as discussed above under Criterion 2a (City of San Diego 1997). Furthermore, Spring Canyon is part of a larger canyon network that provides connectivity between a mosaic of vernal pools, grasslands, and coastal sage scrub (City of San Diego 1997). Furthermore, Spring Canyon is identified as a linkage for cactus wren by the MSCP (City of San Diego 1997) and has further been documented to support movements by large wildlife such as bobcats and coyotes (Wildlife Tracking Company 2020). Mitigation in Spring Canyon would restore degraded areas with invasive species to native wetland habitats, substantially improving the function of the riparian area compared to the existing condition and providing additional riparian habitat for least Bell's vireo, yellow warbler, and yellow-breasted chat, which have been documented south of the mitigation area (see Attachment 13). Furthermore, upstream invasive removals would ensure long term success of the proposed mitigation area and contribute to higher functioning of the wetland system. Thus, the project's restoration of Spring Canyon would provide biologically superior functioning in the surrounding landscape when compared to the current and historic functioning of the on-site wetlands.

e. Connectivity to other wetland or upland systems (including use as a stopover or steppingstone by mobile species), considering:

- proximity of the wetland resource to larger natural open spaces, and
- long-term viability of resource, if avoided and managed;

Discussion: The on-site wetlands are not anticipated to provide significant stopover or steppingstone habitat as the City wetlands consist of a relatively small (less than 0.50 acre) and narrow (less than 50 feet wide) area of habitat. High-quality riparian habitat is present 197 feet off-site to the north within the Otay River corridor, but no extensive wetland habitat is located to the south, east or west. While the project would include the long-term management of the remaining wetlands that would provide for the long-term viability of the remaining wetlands, this management would not occur without project implementation. In its current state without the project, the long-term viability of the resource is considered to be poor, as it relies on artificial hydrology (e.g., runoff) that substantially varies in volume and would continue in its current state of homeless encampment issues. Though the City wetlands would persist if the area were to be avoided and project not developed, the relative functions and values would continue to be low due to the existing habitat degradation issues and relatively small size of the area.

The project's proposed mitigation would occur in Spring Canyon, which is designated MHPA and part of the regional MSCP preserve system (see Attachment 13). Spring Canyon provides connectivity between larger natural open spaces with both wetland and upland habitat, with City of San Diego-owned open space immediately to the north and east. Although land to the west of Spring Canyon is privately owned, the area is within the MHPA and is not planned for development. The nearest planned development from the Spring Canyon mitigation area would be the eastern development area of the Southwest Village Specific Plan which would be located approximately 1,800 feet to the

west of the mitigation area, separated by rugged topography. Additionally, the MSCP provides assurances for long-term conservation of this area.

f. Hydrologic function, considering:

- Whether the volume and retention time of water within the wetland is sufficient to aid in water quality improvements, and
- Whether there is significant flood control value or velocity reduction function; and,
- Whether there is an opportunity to restore the hydrologic functions;

Discussion: The hydrologic functions within the existing wetlands are minimal, as the flows are primarily provided by urban runoff discharged from developments to the south and east (Project Design Consultants 2023). The potential to restore hydrological functions through habitat restoration is limited due to the surrounding urban development, lack of significant natural flows, and adjacent utility easement, as described above.

However, the project incorporates design features to provide pollutant control and improve drainage conditions into the on-site and off-site wetlands. As discussed above under Criterion 2a, the project would maintain existing flows into the on-site wetlands via an underground culvert. The culvert would direct flows to a low-flow splitter that would allow for low flows to enter the on-site wetlands, while excess drainage during high flow conditions would be directed to an adjacent biofiltration basin. These drainage improvements would control the rate of discharge and reduce erosion and siltation in the on-site wetlands, as well as provide pollutant control prior to discharge to the north. Thus, the project would be biologically superior by improving the hydrologic functions of both the on-site City of San Diego wetlands and the surrounding area.

g. Status of watershed considering whether the watershed is partially developed, irrevocably altered, or inadequate to supply water for wetland viability:

Discussion: The on-site City of San Diego wetlands consist of a linear riparian area, approximately 10 to 55 feet in width, bounded by roads, and development to the west, south, and east. The surrounding watershed of the on-site wetlands consists of dense urban development and lacks natural water sources for wetland viability.

The project's proposed mitigation would occur in Spring Canyon, which is part of a system of canyons and drainages draining southward into the Tijuana River. The Tijuana River watershed begins east of Live Oak Spring and includes both developed and undeveloped areas that drain into Spring Canyon, thus providing natural water sources necessary for wetland viability.

h. Source and quality of water, considering:

- Whether the urban runoff is from a partially developed watershed;
- Whether the water source is in part or exclusively from human-caused runoff which could be eliminated by diversion; and
- Whether there is an opportunity to restore the water quality or flood control value.

Discussion: The source of water within the wetlands are from storms and urban runoff discharged from developments to the south and east. The project proposes improvements to improve water quality and reduce erosion and siltation from human-caused runoff. A culvert would be placed under the proposed off-site access road to maintain existing flows into the City of San Diego wetlands to ensure persistence. A low-flow splitter would direct high velocity flows to a biofiltration basin, which would control the rate of discharge to reduce erosion and siltation into the on-site wetlands, as well as to provide pollutant control prior to discharge to the north. With the implementation of the project, the project would improve the drainage conditions to the Otay River and the City of San Diego wetlands in a manner that would reduce erosion and siltation issues off-site and improve water quality conditions (Project Design Consultants 2023).

As discussed above in Criterion 2g, the project's proposed mitigation would occur in Spring Canyon, which includes natural water sources in addition to urban run-off. However, the watershed immediately surrounding the canyon is largely undeveloped and provides upland buffers that protect water quality. Thus, the source and quality of the water is higher for the proposed mitigation area than the project site.

II. Additional habitat-specific factors, requirements, and/or examples (by habitat type) to determine biological quality include the following:

- Freshwater, Riparian, or Brackish Wetlands: Hydrologic evaluations of the effects of any impacts on the upstream and downstream biota and flooding must be conducted as part of the review process.

Discussion: As discussed above in Criterion 2f and 2h, the project would maintain existing flows from urban runoff upstream and proposes improvements to improve water quality and reduce erosion and siltation from human-caused runoff that would improve conditions in the downstream wetlands. High-velocity flows would be directed to a biofiltration basin via a low-flow splitter and, thus, would not result in downstream flooding. In addition, as discussed in the Wetland Mitigation Plan and Long-term Management Plan (see Attachment 15), invasive species would be removed from the on-site wetlands and wetland buffer. This would further improve downstream conditions for biota by preventing the spread of invasive species onsite into downstream habitats. Thus, the project would maintain upstream conditions while improving downstream conditions, preventing flooding and the spread of invasives into off-site habitats.

Criterion 3

The project and proposed mitigation shall conform to the requirements for this option as detailed in Section III.B of the City's Biology Guidelines (2018).

Discussion: As discussed above in Criterion 1, mitigation for City of San Diego wetlands would be provided off-site in Spring Canyon on lands owned by the applicant, which would provide restoration of 0.8 acre of riparian scrub habitat (see Attachment 13). The wetland restoration proposed would re-establish native species, remove invasive species, and improve hydrology within Spring Canyon, resulting in a biologically superior net gain in overall function and values of riparian scrub. Restoration of this area is consistent with the Specific Management Directives for Southern Otay Mesa in the City of San Diego MSCP Subarea Plan, which identifies restoration of disturbed areas in Spring Canyon as a priority (City of San Diego 1997). The mitigation ratios proposed would satisfy the 2:1 wetland mitigation ratio required for riparian scrub, including under the biologically superior design criterion, as shown in Table 2A of the City's Biology Guidelines (2018).

Sections 6.1.1.1, 6.1.2.1, 6.1.3.1, and 6.1.4.1 of this report includes mitigation measures which would reduce significant impacts to below a level of significance. Per the City of San Diego Biology Guidelines, the mitigation measures must be incorporated in the permit conditions and/or subdivision map and shown on the construction plans as appropriate. The proposed mitigation would conform to the City's Biology Guidelines (2018).

Criterion 4

The Wildlife Agencies must concur with the biologically superior project design and analyses. The concurrence shall be in writing and be provided prior to or during the public review of the CEQA document in which the biologically superior project design has been fully described and analyzed. Lack of unequivocal response during the CEQA public review period is deemed to be concurrence.

Discussion: This analysis was presented to the Wildlife Agencies at a batching meeting held on March 17, 2023. A site visit was additionally held with the Wildlife Agencies on April 8, 2023, to review the on-site wetland areas and Biologically Superior Option analysis in further detail. Based on these meetings, project design changes were incorporated to avoid the on-site wetlands to the greatest extent feasible and provide additional detail on the project design features. Specifically, the project design was modified to remove a linear dog park in order to expand the on-site wetland buffer and other modifications were made to the grading design to reduce the project's overall wetland impact from 0.51 to 0.40 acre. The project proponent worked closely with the City of Chula Vista at the request of the Wildlife Agencies to explore feasibility of implementing mitigation within the Otay River adjacent to the site, although that option was found to be infeasible. Further, based on additional discussions with the Wildlife Agencies, the proposal to provide wetland enhancement and restoration within Spring Canyon has been selected as the biologically superior mitigation option. The project proponent has worked in close coordination with the Wildlife Agencies to obtain concurrence. Conditional concurrence for the Biologically Superior Option analysis was provided at the Wildlife Agency batching meeting on October 20, 2023, subject to final review of the mitigation plan and long-term management plans.

5.3.2 No Annexation Scenario

5.3.2.1 Impacts to Vegetation Communities - No Annexation Scenario

The impacts to vegetation communities and land cover types from the project total 23.37 acres. Of this, a total 22.09 acres of impacts would occur in the City of Chula Vista resulting from the project site and off-site area associated with remedial grading and trails, and an additional 1.28 acres of impacts would occur in the City of San Diego resulting from the off-site area associated with road improvements. Table 6 summarizes the impacts to each vegetation community/land cover type within the project area.

Impacts to upland vegetation communities in the City of Chula Vista include 3.39 acre (Tier II) of Diegan coastal sage scrub, 0.17 acre of Diegan coastal sage scrub: *Baccharis* dominated (Tier II), and 13.65 acres of non-native grassland (Tier III). These vegetation communities are considered sensitive uplands by the City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003). Therefore, impacts would be significant and mitigation would be required.

An additional 0.04 acre of impact to Diegan coastal sage scrub (Tier II) would occur in the City of San Diego. As the impacts to Diegan coastal sage scrub within the City of San Diego are less than 0.10 acre, impacts would be less than significant and mitigation would not be required per the City of San Diego's Biology Guidelines (2018). However, impacts to Diegan coastal sage scrub associated with the entire project (3.43 acres) would collectively be significant; therefore, mitigation would be required to offset the project's total impact.

Impacts to wetland vegetation communities in the City of Chula Vista include 0.03 acre of mule fat scrub, 0.15 acre of southern willow scrub, 0.18 acre of emergent wetland, and 0.04 acre of disturbed wetland. These vegetation communities are considered sensitive wetlands by the City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003). Therefore, impacts would be significant and mitigation would be required.

Impacts to land cover types in the City of Chula Vista include 4.48 acres of disturbed habitat (Tier IV). An additional 0.37 acre of impact to disturbed habitat (Tier IV), 0.64 acre of ornamental (Tier IV), and 0.23 acre of urban/developed (Tier IV) would occur in the City of San Diego. These land cover types are not considered sensitive by the City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003) or City of San Diego's Biology Guidelines (City of San Diego 2018b). Therefore, impacts would be less than significant and no mitigation would be required.

In addition, the entire brush management zone 1 occurs entirely inside the limits of disturbance for the project. Brush management zone 2 occurs partially outside of the limits of disturbance within Diegan coastal sage scrub (0.14 acre) and disturbed habitat (0.01 acre). Brush management 2 thinning and pruning activities are considered "impact neutral" and are therefore excluded from the total impact acreage.

Table 6 Direct Impacts to Vegetation Communities and Land Cover Types (No Annexation Scenario)									
Vegetation Community/ Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	City of Chula Vista MSCP Subarea Plan Tier	City of San Diego MSCP Subarea Plan Tier	Existing Project Area Acreage	City of Chula Vista Impacts			City of San Diego Impacts	Total Project Area Impacts (acres)
					Project Site (acres)	Off-site Impact Area (acres)	*Subtotal (Acres)*	Off-site Impact Area (acres)	
Upland Vegetation Communities									
Diegan coastal sage scrub	Coastal sage scrub	II	II	6.55	3.39	—	*3.39*	0.04	3.43
Diegan coastal sage scrub: *Baccharis*-dominated	Coastal sage scrub	II	II	0.92	0.16	0.01	*0.17*	—	0.17
Non-native grassland	Non-native grassland	III	IIIB	14.78	13.60	0.05	*13.65*	—	13.65
Wetland Vegetation Communities									
Arundo-dominated riparian	Riparian scrub	Wetlands	Wetlands	0.12	—	—	—	—	—
Mule fat scrub	Riparian scrub	Wetlands	Wetlands	0.11	0.03	—	*0.03*	—	0.03
Southern willow scrub	Riparian scrub	Wetlands	Wetlands	0.82	0.15	—	*0.15*	—	0.15
Emergent wetland	Natural flood channel	Wetlands	Wetlands	0.18	0.18	—	*0.18*	—	0.18
Disturbed wetland	Disturbed Wetland	Wetlands	Wetlands	0.05	0.04	—	*0.04*	—	0.04
Land Cover Types									
Disturbed habitat	Disturbed land	IV	IV	8.13	4.09	0.39	*4.48*	0.37	4.87
Eucalyptus woodland	Eucalyptus woodland	IV	IV	1.80	—	—	—	—	—
Ornamental	Disturbed land	N/A	IV	1.86	—	—	—	0.64	0.64
Urban/developed	Disturbed land	N/A	IV	1.53	—	—	—	0.23	0.23
Total				**36.85**	**21.64**	**0.45**	***22.09***	**1.28**	**23.37**

5.3.2.2 Impacts to Sensitive Plants - No Annexation Scenario

The project would result in direct impacts to six special-status plant species: Otay tarplant, San Diego marsh-elder, South Coast saltscale, San Diego bur-sage, ashy spike-moss, and San Diego County viguiera (see Figure 5-1). Of this, impacts to San Diego bur-sage, ashy spike-moss, and San Diego County viguiera would occur in the project site within the City of Chula Vista outside of 75% and 100% Conservation Areas. Additional impacts to Otay tarplant, South Coast saltscale, San Diego bur-sage, and San Diego County viguiera would occur in the City of San Diego outside of the MHPA resulting from the off-site road improvements. No direct impacts are anticipated to occur to San Diego barrel cactus, small-flowered microseris, and California adolphia as these species occur outside of project impact area. Impacts to sensitive plant species are addressed below.

a. Impacts to Otay Tarplant

Direct impacts to Otay tarplant would be limited to the off-site impact area within the City of San Diego. Otay tarplant populations vary year to year; however, based on 2022 surveys, impacts would occur to 14 individuals within 0.001 acre of occupied habitat. Impacts to this species, which is a narrow endemic under the City of San Diego MSCP Subarea Plan, would be significant and mitigation would be required.

b. Impacts to San Diego Marsh-elder, South Coast Saltscale, San Diego Bur-sage, Ashy Spike-moss, and San Diego County Viguiera

Direct impacts would occur to San Diego marsh-elder, South Coast saltscale, San Diego bur-sage, ashy spike-moss, and San Diego County viguiera within the project site and off-site area associated with road improvements. Project impacts would be limited to only a portion of the populations on-and off-site within the development footprint. Thus, these species would persist both on-site within the Covenant of Easement area, as well as within off-site areas of habitat. In addition, suitable habitat within the project impact area is limited to 8.6 acres of Diegan coastal sage scrub (including *Baccharis*-dominated variant), disturbed habitat, and southern willow scrub which comprises a small fraction of the habitat available to this species identified in the MSCP Conservation Area both at a local level (1,595 acres in City Planning Component) and on a regional scale (3,314 acres total in the Subarea) (City of Chula Vista 2003). Therefore, project impacts are not anticipated to reduce species' populations below self-sustaining levels and would not be significant.

5.3.2.3 Impacts to Special-Status Wildlife Species - No Annexation Scenario

The project has potential to result in direct impacts to twelve special-status wildlife species: least Bell's vireo, coastal California gnatcatcher, Cooper's hawk, burrowing owl, yellow-breasted chat, yellow warbler, western bluebird, orange-throated whiptail, San Diego tiger whiptail, pallid bat, Mexican long-tongued bat, and western mastiff bat (see Figure 5-1). Of this, potential impacts to these twelve species would occur within and adjacent to the project site within the City of Chula Vista outside of 75% and 100% Conservation Areas. Additional impacts associated with the off-site road improvements in the City of San Diego would potentially occur to burrowing owl, orange-throated

whiptail, San Diego tiger whiptail, pallid bat, Mexican long-tongued bat, and western mastiff bat outside of the MHPA.

a. Impacts to Least Bell's Vireo

Least Bell's vireo was observed within the project site and off-site areas and has a high potential to nest in suitable southern willow scrub, mule fat scrub, and *Arundo*-dominated riparian within the project impact area. Therefore, the project has the potential for direct impacts to any individuals occurring within this suitable habitat. Significant direct impacts would also result from removal of approximately 0.28 acre of available foraging and nesting habitat outside of the 75% and 100% Conservation Areas and MHPA for which habitat-based compensatory mitigation would be required. The project would adhere to the MSCP conditions of coverage for this species, which include habitat-based compensatory mitigation, as described in Section 6.2.4 below.

b. Impacts to Coastal California Gnatcatcher

Coastal California gnatcatcher was observed within the project site and surrounding area and has a high potential to nest within the Diegan coastal sage scrub and Diegan coastal sage scrub: *Baccharis* dominated within the project impact area. Therefore, the project has the potential for direct impacts to any individuals occurring within this suitable habitat. Significant direct impacts would result from removal of approximately 3.58 acres of available foraging and nesting habitat outside of the 75% and 100% Conservation Areas and MHPA for which habitat-based compensatory mitigation would be required. The project would adhere to the MSCP conditions of coverage for this species and include habitat-based compensatory mitigation, as described in Section 6.2.1 below.

c. Impacts to Cooper's Hawk

Cooper's hawk has a moderate potential to nest within the southern willow scrub within the project impact area outside of the 75% and 100% Conservation Areas and MHPA, as well as utilize the project impact area for foraging. Considering the abundance of foraging habitat in the area and large foraging range for Cooper's hawk, project impacts to Cooper's hawk foraging would be less than significant. Establishment of the 300-foot impact avoidance area identified within the MSCP area specific management directives would be required as a project condition of approval. Therefore, no impacts to Cooper's hawk are anticipated.

d. Impacts to Burrowing Owl

Burrowing owl has a low potential to nest within the non-native grassland and disturbed habitat within the project impact area based on current site conditions, which lack suitable burrows for nesting and ground squirrel activity. However, potential direct impacts to this species would be significant and mitigation would be required to conduct a preconstruction survey to verify that no burrowing owls have occupied the project area. The project would also adhere to the MSCP conditions of coverage for this species, which include avoidance, relocation, and habitat-based mitigation.

e. Impacts to Yellow-Breasted Chat and Yellow Warbler

Yellow warbler and yellow-breasted chat were observed within the project impact area. These species have moderate potential to nest within the southern willow scrub and mule fat scrub habitats of the project impact area. The project impacts to yellow-breasted chat and yellow warbler habitat and nesting would be potentially significant and would require mitigation as described in Section 6.2.3.1. The project would be providing habitat-based compensatory mitigation is described in Section 6.2.1.

f. Impacts to Western Bluebird

Western bluebird was observed within the project area; however, the project impact area lacks suitable large trees with cavities for nesting and, thus, no direct impacts would occur to nesting western bluebird. While the project site may provide for western bluebird foraging; this species is adequately conserved by the MSCP and associated MHPA; therefore, impacts outside of the 75% and 100% Conservation Areas and MHPA would be less than significant and no mitigation would be required.

g. Impacts to Orange-throated Whiptail and San Diego Tiger Whiptail

Orange-throated whiptail and San Diego tiger whiptail have a moderate potential to occur within the project impact areas. Therefore, the project has potential to result in direct impacts to these species through incidental mortality during construction activities and through the removal of suitable habitat. However, these species were not observed during biological surveys conducted between 2020 and 2022 and likely only occur on-site in low numbers, and the project would be expected to result in the loss of very few individuals, if any. Additionally, suitable habitat within the project impact area is limited to 3.6 acres of Diegan coastal sage scrub which comprises a small fraction of the coastal sage scrub habitat available to these species identified in the MSCP Conservation Area both at a local level (1,285 acres in the City Planning Component) and on a regional scale (2,481 acres total within the Subarea) (City of Chula Vista 2003). Therefore, the potential loss of these individuals would not reduce the population to less than self-sustaining and would not be significant, and no species-specific mitigation would be required.

h. Impacts to Pallid Bat, Mexican Long-tongued Bat, and Western Mastiff Bat

Pallid bat, Mexican long-tongued bat, and western mastiff bat have a moderate potential to forage within the project impact area; however, none are expected to use any portion of the project impact area for roosting or for a maternity colony due to lack of rock crevices, cliffs, mines or man-made structures suitable for roosting. Additionally, because no nighttime construction or maintenance activities would occur (during foraging), direct impacts to individuals during construction activities are unlikely. Suitable foraging habitat within the project impact area is limited to 17.65 acres of Diegan coastal sage scrub (including *Baccharis*-dominated variant), non-native grassland, and southern willow scrub which comprises a small fraction of the habitat available to this species identified in the MSCP MHPA both at a local level (1,663 acres in the City Planning Component) and on a regional scale (3,908 acres total) (City of Chula Vista 2003). Therefore, this loss of foraging habitat on-site would be less than significant, and no species-specific mitigation would be required.

i. Impacts to Crotch's Bumble Bee

Crotch's bumble bee is a state candidate for listing with a moderate potential to forage and nest within the project impact area. Considering the project has a low potential to support nesting, the project would not result in impacts to Crotch's bumble bee nesting habitat. However, the project has the potential for direct impacts to any individuals occurring within suitable foraging habitat would result in impacts to 4.65 acres of potential foraging habitat in the project impact area. As a candidate for listing, the species is temporarily afforded the same protections as a state-listed endangered or threatened species. Thus, direct impacts to foraging habitat for this species would be significant should this species become state listed as threatened or endangered and during its candidacy for which habitat-based compensatory mitigation would be required. Species-specific mitigation to avoid unauthorized take of Crotch's bumble bee is also required and described in Section 6.1.3.1.

5.3.2.4 Impacts to Wildlife Corridors and Habitat Linkages - No Annexation Scenario

The project site likely functions for local wildlife movement but lacks regional value as a wildlife corridor due to the limited amount of native habitat and its proximity to existing residential and commercial development, roads, and highways. It does not act as a significant linkage to off-site areas of habitat given the adjacency on three sides of development. The project is located 197 feet south of a 75% Conservation Area associated with the Otay River, which may provide opportunities for regional wildlife movement. However, the project would not cause direct impacts to native vegetation communities within the riparian corridor and is separated by the 75% Conservation Area by dense, non-native vegetation (e.g., giant reed, black mustard). The project's implementation of measures to protection biological resources during construction, as described in Section 6.2.1.1, is expected to minimize edge effects with little to no effect on the surrounding habitats. Specifically, disturbances to habitat such as construction-related runoff and ground disturbance would be minimized through the implementation of a biological monitoring program and proper BMPs. As a result, the project would not cause any loss of functionality of the Otay River wildlife corridor, therefore, impacts to wildlife corridors would be less than significant and no mitigation would be required.

5.3.2.5 Impacts to Jurisdictional Resources - No Annexation Scenario

Impacts to potential jurisdictional resources within the project area would be avoided and minimized to the extent feasible. Nonetheless, impacts to potential jurisdictional resources would occur with project implementation. A total of 0.40 acre of impacts to potential RWQCB wetland waters, CDFW riparian, and City of Chula Vista wetland would occur with project implementation (see Figure 5-2). Table 7 summarizes the impacts within the project impact area by jurisdiction. Impacts to potential jurisdictional resources would be significant and mitigation would be required.

Table 7 Impacts to Jurisdictional Resources within the Project Impact Area (No Annexation Scenario)			
Jurisdictional Resource	Acreages by Jurisdiction[a]		
	RWQCB	CDFW	City of Chula Vista
Wetlands/Riparian Habitat			
Arundo-dominated riparian	—	—	—
Mule fat scrub	0.03	0.03	0.03
Southern willow scrub	0.15	0.15	0.15
Emergent wetland	0.18	0.18	0.18
Disturbed wetland	0.04	0.04	0.04
Total	**0.40**	**0.40**	**0.40**
CDFW = California Department of Fish and Wildlife; RWQCB = Regional Water Quality Control Board. [a]Due to overlap of resource jurisdictions, columns should not be added together.			

a. Impacts to City of Chula Vista Wetlands

Wetlands protection must be provided throughout the City of Chula Vista's subarea and an evaluation of wetlands avoidance and minimization is required. If impacts are unavoidable, no net loss of wetlands must be achieved through compensatory mitigation as prescribed by the City of Chula Vista MSCP Subarea Plan Table 5-6 (City of Chula Vista 2003). As discussed in detail in Section 5.3.1.5, wetland impacts are unavoidable due to constrained space and access. Avoidance of the City of Chula Vista wetlands would require redesign of the entrance from Dennery Road and secondary site access, which have been designed to meet codes for emergency access (a health and safety requirement). Due to the degraded nature of the existing wetland, extraordinary design features such as bridging the wetland are not warranted for this project. Due to constrained space and access from the I-805 to the west and urban development to the south and east, the only other secondary access would be to construct a road from the north across the Otay River, which would result in greater wetland impact.

Therefore, wetlands avoidance is considered infeasible. The project incorporates design features to minimize impacts to the wetlands, such as using minimum road widths and crossing the wetlands perpendicular at their narrowest points in areas supporting lower quality wetlands. Additionally, the main access road design near the wetlands incorporates the steepest manufactured slopes allowable (2:1) and a 20-foot retaining wall to minimize grading into the wetlands. To avoid brush management (zones 1 and 2) within the on-site wetlands, the project design was designed to incorporate a 6-foot fire-rated masonry block wall along the entire easternmost edge of the development footprint. Significant unavoidable impacts to City of Chula Vista wetlands would be significant and mitigation would be required to demonstrate compliance with the City of Chula Vista Wetlands Protection requirements. HLIT findings related to wetlands are included in Attachment 1.

5.4 Indirect Impacts – Annexation and No Annexation Scenarios

The indirect impacts would be the same for both the Annexation and No Annexation Scenarios and thus are presented in this section together.

5.4.1 Indirect Impacts to Vegetation Communities

The following sensitive vegetation communities are mapped adjacent to the project impact area and may be subject to indirect impacts: Diegan coastal sage scrub, Diegan coastal sage scrub: *Baccharis*-dominated, non-native grassland, mule fat scrub, southern willow scrub, and *Arundo*-dominated riparian. Potential indirect impacts on these vegetation communities include dust, erosion, and runoff generated by construction activities. Indirect impacts to sensitive vegetation communities would be significant and mitigation would be required.

5.4.2 Indirect Impacts to Special-Status Plant Species

The following sensitive plant species are mapped adjacent to the project impact area and may be subject to indirect impacts: California adolphia, San Diego bur-sage, San Diego barrel cactus, San Diego County viguiera, small-flowered microseris, and ashy spike-moss. Potential indirect impacts on these plant species include dust, erosion, and runoff generated by construction activities. Indirect impacts to sensitive plant species would be significant and mitigation would be required.

5.4.3 Indirect Impacts to Special-Status Wildlife Species

a. Indirect Impacts to Least Bell's Vireo

Indirect impacts to least Bell's vireo may occur if construction activities are conducted during this species' breeding season of March 15 to September 15. Occupied suitable habitat (southern willow scrub, mule fat scrub) for this species occurs adjacent to the project impact area both inside and outside of the MHPA (see Figure 5-1) and construction is likely to cause noise levels within these adjacent habitat areas to exceed 60 A-weighted decibels [dB(A)] average sound level (L_{eq}), which would be considered a significant indirect impact requiring mitigation.

b. Indirect Impacts to Coastal California Gnatcatcher

Indirect impacts to coastal California gnatcatcher outside the MHPA may occur if construction activities are conducted during this species' breeding season of March 1 and August 15. Occupied suitable habitat (coastal sage scrub) for this species occurs adjacent to the project impact area (see Figure 5-1), which may be subject to construction-related noise. However, suitable habitat for this species in the project vicinity occurs entirely outside of any Conservation Areas and the MHPA and the closest coastal sage scrub inside the MHPA is approximately 1,000 feet to the west across Interstate I-805. Therefore, indirect impacts to coastal California gnatcatcher as a result of noise would be less than significant.

c. Indirect Impacts to Cooper's Hawk

Cooper's hawk has a moderate potential to nest within eucalyptus woodland adjacent to the project impact area. Establishment of the 300-foot impact avoidance area identified within the MSCP area specific management directives would be required as a project condition of approval. Indirect impacts to Cooper's hawk foraging would be less than significant considering the existing urbanized

nature of the vicinity, disturbed conditions, existing noise levels, and the project's compliance with standard BMPs. Therefore, no indirect impacts to Cooper's hawk are anticipated.

d. Indirect Impacts to Burrowing Owl

Burrowing owl has a moderate potential to occur within disturbed habitat and non-native grassland adjacent to the project impact area. Potential indirect impacts to this species would be significant and mitigation would be required to verify that no burrowing owls occur adjacent to the project impact area, as discussed in Sections 6.1.3 and 6.2.3.

5.5 Cumulative Impacts - Annexation and No Annexation Scenarios

Cumulative impacts would be the same for both the Annexation and No Annexation Scenarios and are presented in this section together.

The geographic scope for cumulative impacts related to biological resources includes the cities of San Diego and Chula Vista. These jurisdictions are both participants in the MSCP, which constitutes a subregional plan pursuant to the state of California Natural Community Conservation Planning Act and a Habitat Conservation Plan pursuant to Section 10(a)(1)(b) of the FESA. The MSCP considers biological resource conservation on a sub-regional scale and therefore serves as an appropriate measure of cumulative impacts. The City of San Diego's MSCP Subarea Plan and City of Chula Vista's MSCP Subarea Plan serve as the local implementation plans for the sub-regional MSCP. As such, the MSCP and its Subarea Plans provide mitigation programs to address the effects of cumulative development. If a project is determined to be consistent with the MSCP and applicable Subarea Plan, and/or provides appropriate mitigation to ensure the integrity of the plans, its cumulative effects would not be significant. The project would be consistent with both the City of San Diego's MSCP Subarea Plan and City of Chula Vista's MSCP Subarea Plan, which are the applicable Subarea Plans for the project area, and therefore no significant cumulative impacts to biological resources would result from implementation of the project.

Furthermore, the project would achieve no-net-loss of wetlands through a 2:1 mitigation ratio, at minimum, as described in Sections 6.1.4 and 6.2.4, which would provide a greater acreage of wetlands to offset project impacts. The impacted wetlands consist of a narrow, linear corridor and are low quality due to invasive species, lack of natural hydrology, and disturbance from homeless encampments and trash. The project would preserve the higher quality wetlands on-site to continue to provide habitat for least Bell's vireo and would provide an enhanced wetland buffer through revegetation with native upland coastal sage scrub species and drainage improvements, while providing off-site mitigation in to compensate for unavoidable impacts. In addition, long-term management and funding, as described in Attachment 13, would be provided to ensure continued maintenance in perpetuity. The off-site mitigation would occur in a regional corridor identified by the MSCP (e.g., Spring Canyon) in an unconstrained location that would have greater overall wetland value in the long term due to a lack of surrounding urbanization, as well as natural hydrology. Thus, it is anticipated that the replacement wetlands would provide overall higher functions and values for

hydrology and wildlife. Therefore, cumulative impacts to wetlands would be less than significant with mitigation.

6.0 Mitigation

This section is broken down by the two potential scenarios for the project: the Annexation Scenario and the No Annexation Scenario. The mitigation measures required under each scenario to offset significant direct and indirect impacts to sensitive vegetation communities, special-status plants and wildlife, and jurisdictional resources are discussed separately under Sections 6.1 and 6.2, respectively. Mitigation measures that would be implemented by the City of San Diego are presented as SD-BIO-X and mitigation measures that would be implemented by the City of Chula Vista are presented as CV-BIO-X. These mitigation measures would reduce potential significant impacts to a level that is less than significant pursuant to CEQA.

6.1 Annexation Scenario

As described previously, under the Annexation Scenario, the project site would be annexed into the City of San Diego jurisdiction. However, off-site project components would result in impacts to resources located in both the City of Chula Vista and City of San Diego. Mitigation required to offset project impacts in accordance with the regulations of both jurisdictions is provided below. Under the Annexation Scenario, mitigation measures SD-BIO-1 through SD-BIO-10 would be administered by the City of San Diego to offset project impacts to sensitive upland vegetation communities, special-status plants and wildlife, and jurisdictional resources occurring in both the City of Chula Vista and City of San Diego.

6.1.1 Sensitive Upland Vegetation Communities

6.1.1.1 City of San Diego

Mitigation would be required for permanent impacts to 17.25 acres of sensitive upland vegetation communities, as shown in Table 8. Attachment 17 provides details of the proposed upland mitigation at the Pacific Highlands Ranch Restoration and Mitigation Credit Area.

Table 8
Mitigation for Significant Impacts to Sensitive Upland Vegetation Communities (Annexation Scenario)

Vegetation Community	Impact Acreage		City of San Diego Mitigation Ratio[b]		Proposed Mitigation (Inside MHPA)
	On-site	Off-site	Inside MHPA	Outside MHPA	
Diegan coastal sage scrub (Tier II)	3.39	0.04	1:1	1.5:1	3.43
Diegan coastal sage scrub: *Baccharis*-dominated (Tier II)	0.16	0.01[a]	1:1	1.5:1	0.17
Non-native grassland (Tier IIIB)	13.60	0.05[a]	0.5:1	1:1	6.83
Total	17.15	0.10	—	—	10.43

[a]Includes 0.01 acre of impacts to Diegan coastal sage scrub: *Baccharis*-dominated and 0.05 acre of impacts to non-native grassland within the off-site area in the City of Chula Vista. These impacts to Diegan coastal sage scrub: *Baccharis*-dominated and non-native grassland are less than significant in the context of the City of Chula Vista's MSCP Subarea Plan as they total than 0.10 acre. However, mitigation would be required to offset the project's total impact to 0.17 acre of Diegan coastal sage scrub: *Baccharis*-dominated and 13.65 acre of non-native grassland. Therefore, mitigation for impacts within the City of Chula Vista are proposed to be accomplished with the project's overall upland mitigation, which would occur in the City of San Diego.

[b]Mitigation ratios are based on the City of San Diego's Biology Guidelines (City of San Diego 2018a) Tier I–IV ranking system for impacts outside of the MHPA. This report assumes that mitigation would occur inside the City of San Diego's MHPA. Ultimately the mitigation ratio would be dependent on the location of the mitigation as detailed in the City of San Diego's Biology Guidelines (City of San Diego 2018a).

To mitigate for permanent impacts to sensitive habitat under the Annexation Scenario, the following mitigation measures would be implemented by the City of San Diego:

SD-BIO-1 Sensitive Upland Vegetation. Prior to issuance of any construction permits, including but not limited to the first Grading Permit, Demolition Permits and Building Permits, or a Notice to Proceed for Subdivisions, by the City of San Diego for the Annexation Scenario, the owner/permittee shall mitigate for impacts to sensitive upland vegetation in accordance with the City of San Diego's 2018 Biology Guidelines. The owner/permittee shall mitigate direct impacts to Diegan coastal sage scrub and Diegan coastal sage scrub: *Baccharis*-dominated at a 1:1 mitigation ratio, and non-native grassland at a 0.5:1 ratio inside the MHPA. Mitigation for 3.43 acres of Diegan coastal sage scrub (Tier II), 0.17 acre of Diegan coastal sage scrub: *Baccharis*-dominated (Tier II), and 13.65 acres of non-native grassland (Tier IIIB) will be achieved through the preservation of 10.43 acres of Diegan coastal sage scrub habitat (Tier II) at the Pacific Highlands Ranch Restoration and Mitigation Credit Area (City of San Diego 2001). The applicant shall provide proof of mitigation credit purchase to the City of San Diego via a mitigation ledger prior to issuance of any land development permits.

To mitigate for potential indirect impacts to sensitive habitat under the Annexation Scenario, the following mitigation measures would be implemented by the City of San Diego:

SD-BIO-2 Biological Resource Protection During Construction

I. Prior to Construction

A. **Biologist Verification -** The owner/permittee shall provide a letter to the City's Mitigation Monitoring Coordination (MMC) section stating that a Project Biologist (Qualified Biologist) as defined in the City of San Diego's Biological Guidelines (2018a), has been retained to implement the project's biological monitoring program. The letter shall include the names and contact information of all persons involved in the biological monitoring of the project.

B. **Preconstruction Meeting -** The Qualified Biologist shall attend the preconstruction meeting, discuss the project's biological monitoring program, and arrange to perform any follow up mitigation measures and reporting including site-specific monitoring, restoration or revegetation, and additional fauna/flora surveys/salvage.

C. **Biological Documents -** The Qualified Biologist shall submit all required documentation to MMC verifying that any special mitigation reports including but not limited to, maps, plans, surveys, survey timelines, or buffers are completed or scheduled per City Biology Guidelines, Multiple Species Conservation Program (MSCP), Environmentally Sensitive Lands Ordinance (ESL), project permit conditions; California Environmental Quality Act (CEQA); endangered species acts (ESAs); and/or other local, state or federal requirements.

D. **BCME -** The Qualified Biologist shall present a Biological Construction Mitigation/Monitoring Exhibit (BCME) which includes the biological documents in C above. In addition, include: restoration/revegetation plans, plant salvage/relocation requirements (e.g., coastal cactus wren plant salvage, burrowing owl exclusions, etc.), avian or other wildlife surveys/survey schedules (including general avian nesting and USFWS protocol), timing of surveys, wetland buffers, avian construction avoidance areas/noise buffers/ barriers, other impact avoidance areas, and any subsequent requirements determined by the Qualified Biologist and the City ADD/MMC. The BCME shall include a site plan, written and graphic depiction of the project's biological mitigation/monitoring program, and a schedule. The BCME shall be approved by MMC and referenced in the construction documents.

E. **Resource Delineation -** Prior to construction activities, the Qualified Biologist shall supervise the placement of orange construction fencing or equivalent along the limits of disturbance adjacent to sensitive biological habitats and verify compliance with any other project conditions as shown on the BCME. This phase shall include flagging plant specimens and delimiting buffers to protect sensitive biological resources (e.g., habitats/flora & fauna species, including nesting birds)

during construction. Appropriate steps/care should be taken to minimize attraction of nest predators to the site.

F. **Education -** Prior to commencement of construction activities, the Qualified Biologist shall meet with the owner/permittee or designee and the construction crew and conduct an on-site educational session regarding the need to avoid impacts outside of the approved construction area and to protect sensitive flora and fauna (e.g., explain the avian and wetland buffers, flag system for removal of invasive species or retention of sensitive plants, and clarify acceptable access routes/methods and staging areas, etc.).

II. During Construction

A. **Monitoring -** All construction (including access/staging areas) shall be restricted to areas previously identified, proposed for development/staging, or previously disturbed as shown on "Exhibit A" and/or the BCME. The Qualified Biologist shall monitor construction activities as needed to ensure that construction activities do not encroach into biologically sensitive areas, or cause other similar damage, and that the work plan has been amended to accommodate any sensitive species located during the preconstruction surveys. In addition, the Qualified Biologist shall document field activity via the Consultant Site Visit Record (CSVR). The CSVR shall be e-mailed to MMC on the 1st day of monitoring, the 1st week of each month, the last day of monitoring, and immediately in the case of any undocumented condition or discovery.

B. **Subsequent Resource Identification -** The Qualified Biologist shall note/act to prevent any new disturbances to habitat, flora, and/or fauna onsite (e.g., flag plant specimens for avoidance during access, etc.). If active nests or other previously unknown sensitive resources are detected, all project activities that directly impact the resource shall be delayed until species specific local, state or federal regulations have been determined and applied by the Qualified Biologist.

III. Post Construction Measures

A. In the event that impacts exceed previously allowed amounts, additional impacts shall be mitigated in accordance with City Biology Guidelines, ESL and MSCP, State CEQA, and other applicable local, state, and federal law. The Qualified Biologist shall submit a final BCME/report to the satisfaction of the City ADD/MMC within 30 days of construction completion.

6.1.1.2 City of Chula Vista

As discussed above, impacts to 0.01 acre of Diegan coastal sage scrub: *Baccharis*-dominated and 0.05 acre of non-native grassland are less than significant in the context of the City of Chula Vista's MSCP Subarea Plan as they total than 0.10 acre. However, mitigation would be required to offset the project's total impact to 0.17 acre of Diegan coastal sage scrub: *Baccharis*-dominated and 13.65 acres of non-native grassland, which includes 13.60 acres in the City of San Diego and 0.05 acre in the City of Chula Vista. Therefore, impacts to non-native grassland would be mitigated via habitat mitigation

measure SD-BIO-1. In addition, indirect impacts to sensitive habitats in the City of Chula Vista would be mitigated via mitigation measure SD-BIO-2.

6.1.2 Special-Status Plant Species

6.1.2.1 City of San Diego

The Annexation Scenario would result in significant direct and indirect impacts to special-status plants within the City of San Diego. As shown in Table 9, Otay tarplant would require mitigation at a 4:1 mitigation ratio. The Otay Tarplant Mitigation Plan is included in Attachment 18. In addition, indirect impacts to California adolphia, San Diego bur-sage, San Diego barrel cactus, San Diego County viguiera, small-flowered microseris, and ashy spike-moss located adjacent to the project in the City of San Diego would be avoided through biological monitoring, construction fencing, and BMPs as described in SD-BIO-2.

Table 9
Mitigation for Significant Impacts to Otay Tarplant in the City of San Diego

Common Name (Scientific Name)	Status (Federal/State/CRPR/Chula Vista MSCP/San Diego MSCP)	Total Individuals (City of San Diego Only)	City of San Diego Mitigation Ratio	Total Mitigation Required (Individuals)
Otay tarplant (*Deinandra conjugens*)	FT/SE/1B.1/Narrow Endemic/Narrow Endemic	14	4:1	56

FT = Federally threatened; SE = State endangered; CRPR = California Rare Plant Rank

To mitigate for direct impacts to Otay tarplant under the Annexation Scenario, the following measure shall be implemented by the City of San Diego:

SD-BIO-3 Otay Tarplant Mitigation Plan.

Prior to issuance of any construction permits, including but not limited to the first Grading Permit, Demolition Permits and Building Permits, or a Notice to Proceed for Subdivisions, shall incorporate the following mitigation measures into the project design and include them verbatim on all appropriate construction documents.

Prior to Permit Issuance

A. Land Development Review Plan Check

1. Prior to NTP or issuance for any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, whichever is applicable, the ADD environmental designee shall verify that the requirements for the revegetation/restoration plans and specifications, including mitigation of direct impacts to Otay tarplant individual plants at a 4:1 ratio. While the number of individual plants present may vary year-to-year, it is estimated 14 individuals would be impacted and mitigation would include 56 Otay tarplant individuals. The landscape construction documents and specifications must be found to be in conformance with the Otay Tarplant Mitigation Plan for the

Nakano Project prepared by RECON (Attachment 18), the requirements of which are summarized below:

B. Revegetation/Restoration Plan(s) and Specifications

1. Landscape Construction Documents (LCD) shall be prepared on D-sheets and submitted to the City of San Diego Development Services Department, Landscape Architecture Section for review and approval. Landscape Architecture Section shall consult with Mitigation Monitoring Coordination (MMC) and obtain concurrence prior to approval of LCD. The LCD shall consist of revegetation/restoration, planting, irrigation and erosion control plans; including all required graphics, notes, details, specifications, letters, and reports as outlined below.

2. Landscape Revegetation/Restoration Planting and Irrigation Plans shall be prepared in accordance with the San Diego Land Development Code (LDC) Chapter 14, Article 2, Division 4, the LDC Landscape Standards submittal requirements, and Attachment "B" (General Outline for Revegetation/Restoration Plans) of the City of San Diego's LDC Biology Guidelines. The Principal Qualified Biologist (PQB) shall identify and adequately document all pertinent information concerning the revegetation/restoration goals and requirements, such as but not limited to, plant/seed palettes, timing of installation, plant installation specifications, method of watering, protection of adjacent habitat, erosion and sediment control, performance/success criteria, inspection schedule by City staff, document submittals, reporting schedule, etc. The LCD shall also include comprehensive graphics and notes addressing the ongoing maintenance requirements (after final acceptance by the City).

3. The Revegetation Installation Contractor (RIC), Revegetation Maintenance Contractor (RMC), Construction Manager (CM) and Grading Contractor (GC), where applicable shall be responsible to insure that for all grading and contouring, clearing and grubbing, installation of plant materials, and any necessary maintenance activities or remedial actions required during installation and the 120-day plant establishment period are done per approved LCD. The following procedures at a minimum, but not limited to, shall be performed:

   a. The RMC shall be responsible for the maintenance of the upland mitigation area for a minimum period of 120 days. Maintenance visits shall be conducted on a weekly basis throughout the plant establishment period.

   b. At the end of the 120-day period the PQB shall review the mitigation area to assess the completion of the short-term plant establishment period and submit a report for approval by MMC.

   c. MMC will provide approval in writing to begin the five-year long-term establishment/maintenance and monitoring program.

d. Existing indigenous/native species shall not be pruned, thinned, or cleared in the revegetation/mitigation area.

e. The revegetation site shall not be fertilized.

f. The RIC is responsible for reseeding (if applicable) if weeds are not removed, within one week of written recommendation by the PQB.

g. Weed control measures shall include the following: (1) hand removal, (2) cutting, with power equipment, and (3) chemical control. Hand removal of weeds is the most desirable method of control and will be used wherever possible.

h. Damaged areas shall be repaired immediately by the RIC/RMC. Insect infestations, plant diseases, herbivory, and other pest problems will be closely monitored throughout the five-year maintenance period. Protective mechanisms such as metal wire netting shall be used as necessary. Diseased and infected plants shall be immediately disposed of off-site in a legally-acceptable manner at the discretion of the PQB or Qualified Biological Monitor (QBM) (City approved). Where possible, biological controls will be used instead of pesticides and herbicides.

4. If a Brush Management Program is required the revegetation/restoration plan shall show the dimensions of each brush management zone and notes shall be provided describing the restrictions on planting and maintenance and identify that the area is impact neutral and shall not be used for habitat mitigation/credit purposes.

C. Letters of Qualification Have Been Submitted to ADD

1. The applicant shall submit, for approval, a letter verifying the qualifications of the biological professional to MMC. This letter shall identify the PQB, Principal Restoration Specialist (PRS), and QBM, where applicable, and the names of all other persons involved in the implementation of the revegetation/restoration plan and biological monitoring program, as they are defined in the City of San Diego Biological Review References. Resumes and the biology worksheet should be updated annually.

2. MMC will provide a letter to the applicant confirming the qualifications of the PQB/PRS/QBM and all City Approved persons involved in the revegetation/restoration plan and biological monitoring of the project.

3. Prior to the start of work, the applicant must obtain approval from MMC for any personnel changes associated with the revegetation/restoration plan and biological monitoring of the project.

4. PBQ must also submit evidence to MMC that the PQB/QBM has completed Storm Water Pollution Prevention Program (SWPPP) training.

Prior to Start of Construction

A. PQB/PRS Shall Attend Preconstruction (Precon) Meetings

1. Prior to beginning any work that requires monitoring:

   a. The owner/permittee or their authorized representative shall arrange and perform a Precon Meeting that shall include the PQB or PRS, Construction Manager (CM) and/or GC, Landscape Architect (LA), Revegetation RIC, RMC, Resident Engineer (RE), Building Inspector (BI), if appropriate, and MMC.

   b. The PQB shall also attend any other grading/excavation related Precon Meetings to make comments and/or suggestions concerning the revegetation/restoration plan(s) and specifications with the RIC, CM and/or GC.

   c. If the PQB is unable to attend the Precon Meeting, the owner shall schedule a focused Precon Meeting with MMC, PQB/PRS, CM, BI, LA, RIC, RMC, RE and/or BI, if appropriate, prior to the start of any work associated with the revegetation/ restoration phase of the project, including site grading preparation.

2. Where Revegetation/Restoration Work Will Occur

   a. Prior to the start of any work, the PQB/PRS shall also submit a revegetation/restoration monitoring exhibit (RRME) based on the appropriate reduced LCD (reduced to 11"x 17" format) to MMC, and the RE, identifying the areas to be revegetated/restored including the delineation of the limits of any disturbance/grading and any excavation.

   b. PQB shall coordinate with the construction superintendent to identify appropriate Best Management Practices (BMPs) on the RRME.

3. When Biological Monitoring Will Occur

   a. Prior to the start of any work, the PQB/PRS shall also submit a monitoring procedures schedule to MMC and the RE indicating when and where biological monitoring and related activities will occur.

4. PQB Shall Contact MMC to Request Modification

   a. The PQB may submit a detailed letter to MMC prior to the start of work or during construction requesting a modification to the revegetation/restoration plans and specifications. This request shall be based on relevant information (such as other sensitive species not listed by federal and/or state agencies and/or not covered by the MSCP and to which any impacts may be considered significant under CEQA) which may reduce or increase the potential for biological resources to be present.

During Construction

A. PQB or QBM Present During Construction/Grading/Planting

1. The PQB or QBM shall be present full-time during construction activities including but not limited to, site preparation, cleaning, grading, excavation, landscape establishment in association with the project's grading permit which could result in impacts to sensitive biological resources as identified in the LCD and on the RRME. The RIC and/or QBM are responsible for notifying the PQB/PRS of changes to any approved construction plans, procedures, and/or activities. The PQB/PRS is responsible to notify the CM, LA, RE, BI and MMC of the changes.

2. The PQB or QBM shall document field activity via the Consultant Site Visit Record Forms (CSVR). The CSVR's shall be faxed by the CM the first day of monitoring, the last day of monitoring, monthly, and in the event that there is a deviation from conditions identified within the LCD and/or biological monitoring program. The RE shall forward copies to MMC.

3. The PQB or QBM shall be responsible for maintaining and submitting the CSVR at the time that CM responsibilities end (i.e., upon the completion of construction activity other than that of associated with biology).

4. All construction activities (including staging areas) shall be restricted to the development areas as shown on the LCD. The PQB/PRS or QBM staff shall monitor construction activities as needed, with MMC concurrence on method and schedule. This is to ensure that construction activities do not encroach into biologically sensitive areas beyond the limits of disturbance as shown on the approved LCD.

5. The PQB or QBM shall supervise the placement of orange construction fencing or City approved equivalent, along the limits of potential disturbance adjacent to (or at the edge of) all sensitive habitats, including Diegan coastal sage scrub (including *Baccharis*-variant), non-native grassland, southern willow scrub, emergent wetland, and disturbed wetland, as shown on the approved LCD.

6. The PBQ shall provide a letter to MMC that limits of potential disturbance has been surveyed, staked and that the construction fencing is installed properly.

7. The PQB or QBM shall oversee implementation of BMPs, such as gravel bags, straw logs, silt fences or equivalent erosion control measures, as needed to ensure prevention of any significant sediment transport. In addition, the PQB/QBM shall be responsible to verify the removal of all temporary construction BMPs upon completion of construction activities. Removal of temporary construction BMPs shall be verified in writing on the final construction phase CSVR.

8. PQB shall verify in writing on the CSVR's that no trash stockpiling or oil dumping, fueling of equipment, storage of hazardous wastes or construction equipment/material, parking or other construction related activities shall occur adjacent to sensitive habitat. These activities shall occur only within the designated staging area located outside the area defined as biological sensitive area.

9. The long-term establishment inspection and reporting schedule per LCD must all be approved by MMC prior to the issuance of the Notice of Completion or any bond release.

B. Disturbance/Discovery Notification Process

1. If unauthorized disturbances occurs or sensitive biological resources are discovered that where not previously identified on the LCD and/or RRME, the PQB or QBM shall direct the contractor to temporarily divert construction in the area of disturbance or discovery and immediately notify the RE or BI, as appropriate.

2. The PQB shall also immediately notify MMC by telephone of the disturbance and report the nature and extent of the disturbance and recommend the method of additional protection, such as fencing and appropriate Best Management Practices (BMPs). After obtaining concurrence with MMC and the RE, PQB and CM shall install the approved protection and agreement on BMPs.

3. The PQB shall also submit written documentation of the disturbance to MMC within 24 hours by fax or email with photos of the resource in context (e.g., show adjacent vegetation).

C. Determination of Significance

1. The PQB shall evaluate the significance of disturbance and/or discovered biological resource and provide a detailed analysis and recommendation in a letter report with the appropriate photo documentation to MMC to obtain concurrence and formulate a plan of action which can include fines, fees, and supplemental mitigation costs.

2. MMC shall review this letter report and provide the RE with MMC's recommendations and procedures.

Post Construction

A. Mitigation Monitoring and Reporting Period

1. Five-Year Mitigation Establishment/Maintenance Period

a. The RMC shall be retained to complete maintenance monitoring activities throughout the *five-year* mitigation monitoring period.

b. Maintenance visits will be conducted twice per month for the first six months, once per month for the remainder of the first year, and quarterly thereafter.

c. Maintenance activities will include all items described in the LCD.

d. Plant replacement will be conducted as recommended by the PQB (note: plants shall be increased in container size relative to the time of initial installation or establishment or maintenance period may be extended to the satisfaction of MMC.

2. Five-Year Biological Monitoring

a. All biological monitoring and reporting shall be conducted by a PQB or QBM, as appropriate, consistent with the LCD.

b. Monitoring shall involve both qualitative horticultural monitoring and quantitative monitoring (i.e., performance/success criteria). Horticultural monitoring shall focus on soil conditions (e.g., moisture and fertility), container plant health, seed germination rates, presence of native and non-native (e.g., invasive exotic) species, any significant disease or pest problems, irrigation repair and scheduling, trash removal, illegal trespass, and any erosion problems.

c. After plant installation is complete, qualitative monitoring surveys will occur monthly during year one and quarterly during years two through five.

d. Upon the completion of the 120-days short-term plant establishment period, quantitative monitoring surveys shall be conducted at 0, 6, 12, 24, 36, 48 and 60 months by the PQB or QBM. The revegetation/restoration effort shall be quantitatively evaluated once per year (in spring) during years three through five, to determine compliance with the performance standards identified on the LCD. All plant material must have survived without supplemental irrigation for the last two years.

e. Quantitative monitoring shall include the use of fixed transects and photo points to determine the vegetative cover within the revegetated habitat. Collection of fixed transect data within the revegetation/restoration site shall result in the calculation of percent cover for each plant species present, percent cover of target vegetation, tree height and diameter at breast height (if applicable) and percent cover of non-native/non-invasive vegetation. Container plants will also be counted to determine percent survivorship. The data will be used to determine attainment of performance/success criteria identified within the LCD.

f. Biological monitoring requirements may be reduced if, before the end of the fifth year, the revegetation meets the fifth-year criteria and the irrigation has been terminated for a period of the last two years.

g. The PQB or QBM shall oversee implementation of post-construction BMPs, such as gravel bags, straw logs, silt fences or equivalent erosion control measure, as needed to ensure prevention of any significant sediment transport. In addition, the PBQ/QBM shall be responsible to verify the removal of all temporary post-construction BMPs upon completion of construction activities. Removal of temporary post-construction BMPs shall be verified in writing on the final post-construction phase CSVR.

B. Submittal of Draft Monitoring Report

1. A draft monitoring letter report shall be prepared to document the completion of the 120-day plant establishment period. The report shall include discussion on weed control, horticultural treatments (pruning, mulching, and disease control), erosion control, trash/debris removal, replacement planting/reseeding, site protection/signage, pest management, vandalism, and irrigation maintenance. The revegetation/restoration effort shall be visually assessed at the end of 120-day period to determine mortality of individuals.

2. The PQB shall submit two copies of the Draft Monitoring Report which describes the results, analysis, and conclusions of all phases of the Biological Monitoring and Reporting Program (with appropriate graphics) to MMC for review and approval within 30 days following the completion of monitoring. Monitoring reports shall be prepared on an annual basis for a period of five years. Site progress reports shall be prepared by the PQB following each site visit and provided to the owner, RMC, and RIC. Site progress reports shall review maintenance activities, qualitative and quantitative (when appropriate) monitoring results including progress of the revegetation relative to the performance/success criteria, and the need for any remedial measures.

3. Draft annual reports (three copies) summarizing the results of each progress report including quantitative monitoring results and photographs taken from permanent viewpoints shall be submitted to MMC for review and approval within 30 days following the completion of monitoring.

4. MMC shall return the Draft Monitoring Report to the PQB for revision or, for preparation of each report.

5. The PQB shall submit revised Monitoring Report to MMC (with a copy to RE) for approval within 30 days.

6. MMC will provide written acceptance of the PQB and RE of the approved report.

C. Final Monitoring Reports(s)

1. PQB shall prepare a Final Monitoring upon achievement of the fifth-year performance/success criteria and completion of the five-year maintenance period.

a. This report may occur before the end of the fifth year if the revegetation meets the fifth-year performance /success criteria and the irrigation has been terminated for a period of the last two years.

b. The Final Monitoring report shall be submitted to MMC for evaluation of the success of the mitigation effort and final acceptance. A request for a pre-final inspection shall be submitted at this time, MMC will schedule after review of report.

c. If at the end of the five years any of the revegetated area fails to meet the project's final success standards, the applicant must consult with MMC. This consultation shall take place to determine whether the revegetation effort is acceptable. The applicant understands that failure of any significant portion of the revegetation/restoration area may result in a requirement to replace or renegotiate that portion of the site and/or extend the monitoring and establishment/maintenance period until all success standards are met.

D. Management and Maintenance in Perpetuity

The Otay tarplant mitigation area shall be protected and managed/maintained in perpetuity. The Otay tarplant mitigation site shall be addressed through a long-term management plan. The Otay tarplant mitigation area shall be covered by a Covenant of Easement to the benefit of the City of San Diego or dedicated in-fee title to the City of San Diego. The project proponent shall provide funding in an amount approved by the City based on a Property Analysis Record (Center for Natural Lands Management 1998), or similar cost estimation method, to secure the ongoing funding for the perpetual long-term management, maintenance, and monitoring of the off-site mitigation area pursuant to the long-term management plan by an agency, nonprofit organization, or other entity approved by the City of San Diego.

6.1.2.2 City of Chula Vista

Direct and indirect impacts to special-status plant species in the off-site City of Chula Vista area would be less than significant and no mitigation is required.

6.1.3 Special-Status Wildlife Species

6.1.3.1 City of San Diego

The Annexation Scenario would result in potential significant direct and indirect impacts to special-status wildlife within the City of San Diego. To mitigate for impacts to least Bell's vireo, burrowing owl, coastal California gnatcatcher, yellow warbler and yellow-breasted chat under the Annexation Scenario, mitigation measure SD-BIO-4 shall be implemented by the City of San Diego. Additionally, direct impacts to habitat would be mitigated through upland and wetland habitat mitigation measures described in SD-BIO-1 and SD-BIO-8, respectively. Potential direct and indirect

impacts to least Bell's vireo and burrowing owl would be further mitigated by SD-BIO-5 and SD-BIO-6. Potential direct impacts to Crotch's bumble bee would be further mitigated by SD-BIO-7.

SD-BIO-4 Measures to Protect Sensitive Bird Nesting

A. Avian Protection Requirements - Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits or a Notice to Proceed for Subdivisions, removal of habitat that supports active nests in the proposed area of disturbance should occur outside of the breeding season for least Bell's vireo, burrowing owl, coastal California gnatcatcher, yellow-breasted chat, and yellow warbler (February 1 to September 15) or a preconstruction survey shall be completed by Qualified Biologist preconstruction to determine the presence or absence of nesting least Bell's vireo, burrowing owl, coastal California gnatcatcher, yellow-breasted chat, and yellow warbler on the proposed area of disturbance. The preconstruction survey shall be conducted within 10 calendar days prior to the start of construction activities (including removal of vegetation). The applicant shall submit the results of the preconstruction survey to City DSD for review and written approval prior to initiating any construction activities. If nesting birds are detected, a letter report in conformance with the City's Biology Guidelines and applicable state and federal law (i.e. appropriate follow up surveys, monitoring schedules, construction and noise barriers/buffers, etc.) shall be prepared and include proposed measures to be implemented to ensure that take of birds or eggs or disturbance of breeding activities is avoided. The report shall be submitted to the City for review and written approval and implemented to the satisfaction of the City. The City's MMC Section and Biologist shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

To mitigate for direct and indirect impacts to least Bell's vireo under the Annexation Scenario, the wetland habitat mitigation identified in SD-BIO-7, as well as the following measures shall be implemented by the City of San Diego.

SD-BIO-5 Direct Impact Avoidance and Noise Restrictions for Least Bell's Vireo

Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Permits and Building Permits or a Notice to Proceed for Subdivisions, the City Manager (or appointed designee) shall verify that the following project requirements regarding the least Bell's vireo are shown on the construction plans:

No clearing, grubbing, grading, or other construction activities shall occur between March 15 and September 15, the breeding season of the least Bell's vireo, until the following requirements have been met to the satisfaction of the City Manager:

A. A Qualified Biologist (possessing a valid Endangered Species Act Section 10(a)(1)(a) Recovery Permit) shall survey those wetland areas that would be subject to construction noise levels exceeding 60 decibels [dB(A)] hourly average for the presence of the least Bell's vireo. Surveys for this species shall be conducted

pursuant to the protocol survey guidelines established by the USFWS within the breeding season prior to the commencement of construction. If the least Bell's vireo is present, then the following conditions must be met:

I. Between March 15 and September 15, no clearing, grubbing, or grading of occupied least Bell's vireo habitat shall be permitted. Areas restricted from such activities shall be staked or fenced under the supervision of a Qualified Biologist; and

II. Between March 15 and September 15, no construction activities shall occur within any portion of the site where construction activities would result in noise levels exceeding 60 dB(A) hourly average at the edge of occupied least Bell's vireo or habitat. An analysis showing that noise generated by construction activities would not exceed 60 dB(A) hourly average at the edge of occupied habitat must be completed a qualified acoustician (possessing current noise engineer license or registration with monitoring noise level experience with listed animal species) and approved by the City Manager at least two weeks prior to the commencement of construction activities. Prior to the commencement of any of construction activities during the breeding season, areas restricted from such activities shall be staked or fenced under the supervision of a qualified biologist; or

III. At least two weeks prior to the commencement of construction activities, under the direction of a qualified acoustician, noise attenuation measures (e.g., berms, walls) shall be implemented to ensure that noise levels resulting from construction activities will not exceed 60 dB(A) hourly average at the edge of habitat occupied by the least Bell's vireo. Concurrent with the commencement of construction activities and the construction of necessary noise attenuation facilities, noise monitoring* shall be conducted at the edge of the occupied habitat area to ensure that noise levels do not exceed 60 dB(A) hourly average. If the noise attenuation techniques implemented are determined to be inadequate by the qualified acoustician or biologist, then the associated construction activities shall cease until such time that adequate noise attenuation is achieved or until the end of the breeding season (September 16).

*Construction noise monitoring shall continue to be monitored at least twice weekly on varying days, or more frequently depending on the construction activity, to verify that noise levels at the edge of occupied habitat are maintained below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB (A) hourly average. If not, other measures shall be implemented in consultation with the Qualified Biologist and the City Manager, as necessary, to reduce noise levels to below 60 dB(A) hourly average or to the ambient noise level if it already exceeds 60 dB(A) hourly average. Such measures may include, but are not limited to, limitations on the placement of construction equipment and the simultaneous use of equipment.

B. If least Bell's vireo are not detected during the protocol survey, the Qualified Biologist shall submit substantial evidence to the City Manager and applicable

resource agencies for review and written approval which demonstrates whether or not mitigation measures such as noise walls are necessary between March 15 and September 15 as follows:

I. If this evidence indicates the potential is high for least Bell's vireo to be present based on historical records or site conditions, then condition A.III shall be adhered to as specified above.

II. If this evidence concludes that no impacts to this species are anticipated, no mitigation measures would be necessary.

To mitigate for direct and indirect impacts to burrowing owls under the Annexation Scenario, the habitat mitigation identified in SD-BIO-1, as well as the following measures shall be implemented by the City of San Diego:

SD-BIO-6 Burrowing Owl Preconstruction Survey and Avoidance in San Diego. The following shall be implemented to avoid potential impacts to burrowing owl:

Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Permits and Building Permits or a Notice to Proceed for Subdivisions, the City of San Diego Manager (or appointed designee) shall verify that the following project requirements regarding burrowing owl are shown on the construction plans:

PRECONSTRUCTION SURVEY ELEMENT

Prior to Permit or Notice to Proceed Issuance:

1. As this project area has been determined to be burrowing owl occupied or to have burrowing owl occupation potential, the Applicant Department or Permit Holder shall submit evidence to the ADD of Entitlements and MSCP staff, to the satisfaction of the City, verifying that a Biologist possessing qualifications pursuant to the "Staff Report on Burrowing Owl Mitigation, State of California Natural Resources Agency Department of Fish and Game. March 7, 2012 (hereafter referred as CDFG 2012, Staff Report), has been retained to implement a burrowing owl construction impact avoidance program.

2. The qualified burrowing owl biologist (or their designated biological representative) shall attend the preconstruction meeting to inform construction personnel about the City's burrowing owl requirements and subsequent survey schedule.

Prior to Start of Construction:

1. The Applicant Department or Permit Holder and Qualified Biologist must ensure that initial preconstruction/take avoidance surveys of the project "site" are completed between 14 and 30 days before initial construction activities begin, including brushing, clearing, grubbing, or grading of the project site; regardless of the time of the year. "Site" means the project site and the area within a radius of 450 feet of the project site. The report shall be submitted and approved by the Wildlife Agencies

and/or City MSCP staff prior to construction or burrowing owl eviction(s) and shall include maps of the project site and BUOW locations on aerial photos.

2. The preconstruction survey shall follow the methods described in CDFG 2012, Staff Report -Appendix D

3. 24 hours prior to commencement of ground disturbing activities, the Qualified Biologist shall verify results of preconstruction/take avoidance surveys via review of the Survey Report (see report requirements in CDFG 2012, Staff Report - Appendix D 3) that is to be provided to the City and Wildlife Agencies. Written verification via the Survey Report shall be provided to the City's Mitigation Monitoring and Coordination (MMC) and MSCP Sections, and to the satisfaction of these sections. If results of the preconstruction surveys have changed and burrowing owl are present in areas not previously identified, immediate notification to the City and Wildlife Agencies shall be provided prior to ground disturbing activities.

During Construction:

1. Best Management Practices shall be employed as burrowing owls are known to use open pipes, culverts, excavated holes, and other burrow-like structures at construction sites. Legally permitted active construction projects which are burrowing owl occupied and have followed all protocol in this mitigation section, or sites within 450 feet of occupied burrowing owl areas, should undertake measures to discourage burrowing owls from recolonizing previously occupied areas or colonizing new portions of the site. Such measures include, but are not limited to, ensuring that the ends of all pipes and culverts are covered when they are not being worked on, and covering rubble piles, dirt piles, ditches, and berms.

2. Ongoing Burrowing Owl Detection - If burrowing owls or active burrows are not detected during the preconstruction surveys, Section "A" below shall be followed. If burrowing owls or burrows are detected during the preconstruction surveys, Section "B" shall be followed. NEITHER THE MSCP SUBAREA PLAN NOR THIS MITIGATION SECTION ALLOWS FOR ANY BURROWING OWLS TO BE INJURED OR KILLED OUTSIDE OR WITHIN THE MHPA; in addition, IMPACTS TO BURROWING OWLS WITHIN THE MHPA MUST BE AVOIDED.

   A. Post Survey Follow Up if Burrowing Owls and/or Signs of Active Natural or Artificial Burrows Are Not Detected During the Initial Preconstruction Survey - Monitoring the site for new burrows is required using CDFG Staff Report 2012 Appendix D methods for the period following the initial preconstruction survey, until construction is scheduled to be complete and is complete *(NOTE - Using a projected completion date (that is amended if needed) will allow development of a monitoring schedule).*

      1) If no active burrows are found but burrowing owls are observed to occasionally (1-3 sightings) use the site for roosting or foraging, they should

be allowed to do so with no changes in the construction or construction schedule.

2) If no active burrows are found but burrowing owls are observed during follow up monitoring to repeatedly (4 or more sightings) use the site for roosting or foraging, the City's MMC and MSCP Sections shall be notified and any portion of the site where owls have been sited and that has not been graded or otherwise disturbed shall be avoided until further notice.

3) If a burrowing owl begins using a burrow on the site at any time after the initial preconstruction survey, procedures described in Section B must be followed.

4) Any actions other than these require the approval of the City and the Wildlife Agencies.

B. Post Survey Follow Up if Burrowing Owls and/or Active Natural or Artificial Burrows are detected during the Initial Preconstruction Survey - Monitoring the site for new burrows is required using Appendix D CDFG 2012, Staff Report for the period following the initial preconstruction survey, until construction is scheduled to be complete and is complete *(NOTE - Using a projected completion date (that is amended if needed) will allow development of a monitoring schedule which adheres to the required number of surveys in the detection protocol).*

1) This section (B) applies only to sites (including biologically defined territory) wholly outside of the MHPA – all direct and indirect impacts to burrowing owls within the MHPA SHALL be avoided.

2) If one or more burrowing owls are using any burrows (including pipes, culverts, debris piles, etc.) on or within 300 feet of the proposed construction area, the City's MMC and MSCP Sections shall be immediately contacted. The City's MSCP and MMC Section shall contact the Wildlife Agencies regarding eviction/collapsing burrows and enlist appropriate City biologist for on-going coordination with the Wildlife Agencies and the qualified consulting burrowing owl biologist. No construction shall occur within 300 feet of an active burrow without written concurrence from the Wildlife Agencies. This distance may increase or decrease, depending on the burrow's location in relation to the site's topography, and other physical and biological characteristics.

a) Outside the Breeding Season - If the burrowing owl is using a burrow on-site outside the breeding season (i.e., September 1 – January 31), the burrowing owl may be evicted after the qualified burrowing owl biologist has determined via fiber optic camera or other appropriate device, that no eggs, young, or adults are in the burrow. Eviction requires preparation of an Exclusion Plan prepared in accordance with CDFG 2012 Staff Report, Appendix E (or most recent guidance available) for review and submittal

to Wildlife Agencies and City of San Diego (MMC and MSCP). Written concurrence from the Wildlife Agencies is required prior to Exclusion Plan implementation.

b) **During Breeding Season** - If a burrowing owl is using a burrow on-site during the breeding season (February 1 – August 31), construction shall not occur within 300 feet of the burrow until the young have fledged and are no longer dependent on the burrow, at which time the burrowing owls can be evicted. Eviction requires preparation of an Exclusion Plan prepared in accordance with CDFG 2012 Staff Report, Appendix E (or most recent guidance available) for review and submittal to Wildlife Agencies and City of San Diego (MMC and MSCP). Written concurrence from the Wildlife Agencies is required prior to Exclusion Plan implementation.

3. **Survey Reporting During Construction -** Details of construction surveys and evictions (if applicable) carried out shall be immediately (within 5 working days or sooner) reported to the City's MMC, and MSCP Sections and the Wildlife Agencies and must be provided in writing (as by e-mail) and acknowledged to have been received by the required Agencies and DSD Staff member(s).

Post Construction:

1. Details of all surveys and actions undertaken on-site with respect to burrowing owls (i.e., occupation, eviction, locations etc.) shall be reported to the City's MMC Section and the Wildlife Agencies within 21 days post-construction and prior to the release of any grading bonds. This report must include summaries of all previous reports for the site; and maps of the project site and burrowing owl locations on aerial photos.

To mitigate for direct impacts to foraging Crotch's bumble bee under the Annexation Scenario, the habitat mitigation identified in SD-BIO-1, as well as the following measures shall be implemented by the City of San Diego:

SD-BIO-7 **Direct Impact Avoidance for Crotch's Bumble Bee.** Prior to the Notice to Proceed for any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, the Development Services Department (DSD) Director's Environmental Designee shall verify the following project requirements regarding the Crotch's bumble bee are shown on the construction plans:

A. To avoid impacts to Crotch's bumble bee, removal of habitat in the proposed area of disturbance must occur outside of the Colony Active Period between April 1 through August 31. If removal of habitat in the proposed area of disturbance must occur during the Colony Active Period, a Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of Crotch's bumble bee within the proposed area of disturbance.

B. A Qualified Biologist must demonstrate the following qualifications: at least 40 hours of experience surveying for bee or other co-occurring aerial invertebrate species

(such as Quino checkerspot butterfly) and who have completed a Crotch's bumble bee detection/identification training by an expert Crotch's bumble bee entomologist; or the biologist must have at least 20 hours of experience directly observing Crotch's bumble bee.

C. The pre-construction survey shall be conducted during the colony active period between April 1 through August 31 by the Qualified Biologist prior to the issuance of Grading Permit, Demolition Plans/Permits and Building Plans/Permits and within one year prior to the initiation of project activities (including removal of vegetation). The pre-construction survey shall consist of photographic surveys following California Department of Fish and Wildlife (CDFW) guidance (ie, Survey Considerations for California Endangered Species Act [CESA] Candidate Bumble Bee Species, dated June 6, 2023). The surveys shall consist of passive methods unless a Memorandum of Understanding is obtained, as described below. The surveys shall consist of three separate visits spaced two to four weeks apart. Survey results will be considered valid until the start of the next colony active period.

D. If additional activities (e.g., capture or handling) are deemed necessary to identify bumble bees of an unknown species that may be Crotch's bumble bee, then the Qualified Biologist shall obtain the required authorization via a Memorandum of Understanding or Scientific Collecting Permit pursuant to CDFW Survey Considerations for CESA Candidate Bumble Bee Species (CDFW 2023). Survey methods that involve lethal take of species are not acceptable.

E. The Qualified Biologist/owner permittee shall submit the results (including positive or negative survey results) of the pre-construction survey to City DSD (Mitigation Monitoring and Coordination) City Planning Department (MSCP) staff and CDFW for review and written approval prior to the issuance of Grading Permit, Demolition Plans/Permits and Building Plans/Permits.

F. If pre-construction surveys identify Crotch's bumble bee individuals on-site, the Qualified Biologist shall notify CDFW and the Qualified Biologist shall notify and consult with CDFW to determine whether project activities would result in impacts to Crotch's bumble bee, in which case an Incidental Take Permit ITP) may be required. If an ITP is required, it shall be obtained prior to issuance of Grading Permit, Demolition Plans/Permits and Building Plans/Permits and all necessary permit conditions shall be fulfilled prior to initiation of project activities. Take of any endangered, threatened, candidate species that results from the Project is prohibited, except as authorized by State law (California Fish and Game Code §§ 86, 2062, 2067, 2068, 2080, 2085; California Code of Regulations, Title 14, § 786.9) under the CESA.

G. Survey data shall be submitted by the Qualified Biologist to the CNDDB in accordance with the Memorandum of Understanding with CDFW, or Scientific Collecting Permit requirements, as applicable.

6.1.3.2 City of Chula Vista

The Annexation Scenario would result in potential direct and indirect impacts to nesting birds, including burrowing owl, coastal California gnatcatcher, and least Bell's vireo, and direct impacts to Crotch's bumble bee within the City of Chula Vista during construction. Impacts to nesting birds would be mitigated via habitat-based mitigation and avoidance measures SD-BIO-1, SD-BIO-4, SD-BIO-5, and SD-BIO-6. Impacts to Crotch's bumble bee would be mitigated via SD-BIO-1 and SD-BIO-7.

6.1.4 Jurisdictional Resources

6.1.4.1 City of San Diego

The Annexation Scenario would result in potential direct and indirect impacts to jurisdictional resources within the City of San Diego. This includes direct impacts to a total of 0.40 acre of potential RWQCB wetland waters, CDFW riparian, and City of San Diego wetland, as detailed in Table 10. Indirect impacts to wetlands would be avoided through compliance with the City of San Diego's Biological Resource Protection During Construction measure SD-BIO-2 (refer to Section 6.1.1.1).

Table 10
Mitigation for Significant Impacts to Jurisdictional Resources (Annexation Scenario)

Vegetation Community	Impact Acreage	City of San Diego Mitigation Ratio[a]	Total Mitigation Required (Acres)
Mule fat scrub	0.03	2:1	0.06
Southern willow scrub	0.15	2:1	0.30
Emergent wetland	0.18	2:1	0.36
Disturbed wetland	0.04	2:1	0.08
Total	0.40	—	0.80

[a]Mitigation is pursuant to the City of San Diego's Biology Guidelines (City of San Diego 2018a). Per the City of San Diego's Biology Guidelines (City of San Diego 2018a), mitigation must include a 1:1 creation or restoration component for native wetland habitats.

To mitigate for direct impacts to jurisdictional resources under the Annexation Scenario, the following measures shall be implemented by the City of San Diego:

SD-BIO-8 **Wetland Restoration/Creation and Permits**. Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Permits and Building Permits or a Notice to Proceed for Subdivisions, the owner/permittee shall provide compensatory wetland mitigation in accordance with the City of San Diego Land Development Code Biology Guidelines, resulting in no overall net loss of wetlands. To offset the loss of 0.40 acre of impacts to RWQCB wetland waters, CDFW riparian, and City of San Diego wetlands would occur with project implementation, a minimum of 0.80 acre of mitigation for jurisdictional impacts shall be provided. To ensure no net loss, this shall include a 1:1 creation or restoration component (0.40 acre of creation or restoration).

Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits by the City of San Diego that impact jurisdictional waters, the project applicant shall obtain all necessary permits from RWQCB and CDFW, and shall mitigate direct impacts in accordance with the terms and conditions of all required permits. Areas under the jurisdictional authority of RWQCB and CDFW shall be delineated on all grading plans.

The applicant shall submit a Final Wetlands Mitigation and Monitoring Plan and submit it for review and approval to the satisfaction of the City of San Diego, USACE, RWQCB, and CDFW. The plan shall include, at a minimum, an implementation strategy; appropriate seed mixtures and planting method; irrigation; quantitative and qualitative success criteria; maintenance, monitoring, and reporting program; estimated completion time; contingency measures; and shall identify long-term funding. The project applicant shall implement the Wetlands Mitigation and Monitoring Plan subject to the oversight and approval of the City of San Diego DSD director (or their designee), RWQCB, and CDFW.

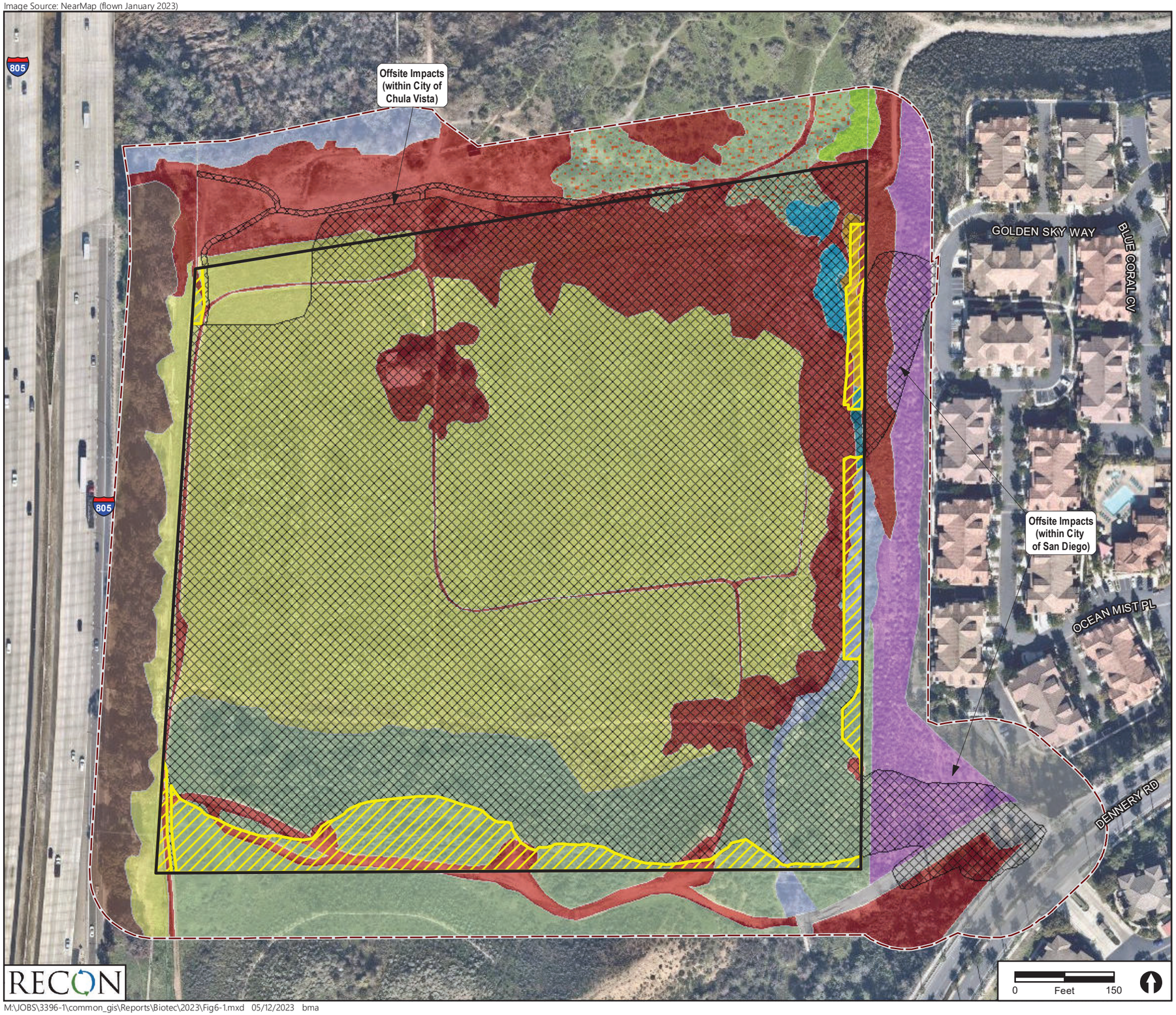
The project proponent shall provide funding in an amount approved by the City and the Wildlife Agencies based on a Property Analysis Record (Center for Natural Lands Management 1998), or similar cost estimation method, to secure the ongoing funding for the perpetual long-term management, maintenance, and monitoring of the off-site wetland mitigation area by an agency, nonprofit organization, or other entity approved by the City and the Wildlife Agencies.

A Conceptual Wetland Mitigation and Long-Term Management Plan has been prepared and is included in Attachment 13.

SD-BIO-9 Protection and Management Element. Prior to issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Permits and Building Permits or a Notice to Proceed for Subdivisions, the remaining environmentally sensitive lands (ESL) lands shall be placed in a covenant of easement per Section 143.0140(a) of the City of San Diego Municipal Code ESL regulation (City of San Diego 2022). These lands will not be used towards mitigation and will be protected from future development. Long-term management of the wetlands within the covenant of easement would be managed by the Homeowners Association in accordance with the Long-term Management Plan (see SD-BIO-10).

Environmentally sensitive lands within the project site that would be placed in the covenant of easement are shown on Figure 6-1.

Image Source: NearMap (flown January 2023)



Project Boundary
Survey Area
Project Impacts
Covenant of Easement

Vegetation Communities

Arundo-Dominated Riparian
Diegan Coastal Sage Scrub
Diegan Coastal Sage Scrub: Baccharis-dominated
Disturbed Habitat
Disturbed Wetland
Emergent Wetland
Eucalyptus Woodland
Mule Fat Scrub
Non-Native Grassland
Ornamental
Southern Willow Scrub
Urban/Developed

RECON

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FIGURE 6-1
Covenant of Easement

SD-BIO-10 Prior to the issuance of any construction permits, including but not limited to, the first Grading Permit, Demolition Permits and Building Permits or a Notice to Proceed for Subdivisions, a long-term management plan shall be prepared to the satisfaction of the City of San Diego DSD director (or their designee), USFWS, and CDFW to address the ongoing maintenance of the on-site wetland mitigation lands to remain. This plan shall require (1) yearly inspection and enforcement of lighting within the site to be directed and shielded away from the wetland area; (2) yearly maintenance of the 6-foot block wall that separates the development from the wetland area to reduce intrusion into the wetlands; (3) control invasive species appearing within the wetland three times a year; (4) brush management once a year with techniques that protect habitat quality; and (5) trash removal once a year. The project proponent shall provide funding in an amount approved by the City and the Wildlife Agencies based on a Property Analysis Record (Center for Natural Lands Management 1998), or similar cost estimation method, to secure the ongoing funding for the perpetual long-term management, maintenance, and monitoring of the on-site wetland mitigation area by the Owner/Permittee.

A Conceptual Long-term Management Plan for the On-site Wetlands at the Nakano Project has been prepared and is included in Attachment 15.

6.1.4.2 City of Chula Vista

As no direct impacts to jurisdictional resources would occur in the off-site City of Chula Vista area under the Annexation Scenario, no mitigation is warranted. Indirect impacts to jurisdictional resources in the City of Chula Vista would be mitigated via SD-BIO-2.

6.2 No Annexation Scenario

As described previously, under the No Annexation Scenario, the project and off-site remedial grading area would remain under the City of Chula Vista's jurisdiction and the off-site access area would remain under the City of San Diego's jurisdiction. Mitigation required to offset project impacts in accordance with the regulations of both jurisdictions is provided below. Under the No Annexation Scenario, mitigation measures CV-BIO-1 through CV-BIO-10 would be administered by the City of Chula Vista to offset project impacts to sensitive upland vegetation communities, special-status plants and wildlife, and jurisdictional resources occurring in both the City of Chula Vista and City of San Diego. Mitigation measure SD-BIO-3 would be administered by the City of San Diego to offset project impacts to Otay tarplant, which are limited to the off-site impact area in the City of San Diego.

6.2.1 Sensitive Upland Vegetation Communities

6.2.1.1 City of Chula Vista

Mitigation would be required for permanent impacts to 17.25 acres of sensitive upland vegetation communities, as shown in Table 11.

Table 11
Mitigation for Significant Impacts to Sensitive Upland Vegetation Communities (No Annexation Scenario)

Vegetation Community	Impact Acreage		City of Chula Vista Mitigation Ratio[b]		Proposed Mitigation (Inside MSCP Preserve[c])
	On-site	Off-site	Inside MSCP Preserve[c]	Outside MSCP Preserve[c]	
Diegan coastal sage scrub (Tier II)	3.39	0.04[a]	1:1	1.5:1	3.43
Diegan coastal sage scrub: *Baccharis*-dominated (Tier II)	0.16	0.01	1:1	1.5:1	0.17
Non-native grassland (Tier III)	13.60	0.05	0.5:1	1:1	6.83
Total	17.15	0.10	—	—	10.43

[a]Includes 0.04 acre of impacts to Diegan coastal sage scrub within the off-site area in the City of San Diego. These impacts to Diegan coastal sage scrub are less than significant in the context of the City of San Diego's MSCP Subarea Plan as they total than 0.10 acre. However, mitigation would be required to offset the project's total impact to 3.43 acres of Diegan coastal sage scrub. Therefore, mitigation for impacts within the City of San Diego are proposed to be accomplished with the project's overall upland mitigation, which would occur in the City of Chula Vista.
[b]Mitigation ratios are based on the City of Chula Vista's MSCP Subarea Plan (City of Chula Vista 2003) Tier I–IV ranking system for impacts outside of the MHPA. This report assumes that mitigation would occur inside the City of Chula Vista's Conservation Area. Ultimately the mitigation ratio would be dependent on the location of the mitigation as detailed in the City of Chula Vista's MSCP Subarea Plan (City of Chula Vista 2003).
[c] Defined as any Preserve areas identified via the MSCP Subregional Plan and implemented via MSCP Subarea Plans (e.g., City of Chula Vista 75% or 100% Conservation Area, City of San Diego MHPA, or County of San Diego Pre-Approved Mitigation Area)

To mitigate for permanent impacts to sensitive habitat under the No Annexation Scenario, the following measures would be implemented by the City of Chula Vista:

CV-BIO-1 **Sensitive Upland Vegetation in Chula Vista.** Prior to the issuance of any land development permits or development activities by the City of Chula Vista for the No Annexation Scenario, including clearing, grubbing, grading, and/or construction permits, the project applicant shall secure mitigation for direct impacts to Diegan coastal sage scrub and Diegan coastal sage scrub: *Baccharis*-dominated at a 1:1 mitigation ratio and non-native grassland at a 0.5:1 mitigation ratio if mitigated within the MSCP Preserve , or mitigate direct impacts to Diegan coastal sage scrub and Diegan coastal sage scrub: *Baccharis*-dominated at a 1.5:1 mitigation ratio and non-native grassland at a 1:1 mitigation ratio if mitigated outside the MSCP Preserve. Mitigation for direct impacts would be pursuant to the City of Chula Vista's Subarea Plan consistent with the ratios listed in Table 5-3 of the Subarea Plan. The applicant may meet this mitigation requirement through purchase of upland mitigation credits (e.g., Tier II credits at San Miguel Conservation Bank or Willow Road Mitigation Bank). The applicant is required to provide proof of mitigation credit purchase to the City of Chula Vista prior to issuance of any land development permits.

To mitigate for potential indirect impacts to sensitive habitat under the No Annexation Scenario, the following mitigation measures would be implemented by the City of Chula Vista:

CV-BIO-2 **Biological Monitor.** Prior to issuance of land development permits, including clearing, grubbing, grading, and/or construction permits, for any areas adjacent to the Preserve and the off-site facilities located within the Preserve, the project Applicant shall provide written confirmation that a City of Chula Vista-approved biological monitor has been

retained and shall be on-site during clearing, grubbing, and/or grading activities. The biological monitor shall attend all preconstruction meetings and be present during the removal of any vegetation to ensure that the approved limits of disturbance are not exceeded and provide periodic monitoring of the impact area including, but not limited to, trenches, stockpiles, storage areas, and protective fencing. The biological monitor shall be authorized to halt all associated project activities that may be in violation of the Chula Vista MSCP Subarea Plan and/or permits issued by any other agencies having jurisdictional authority over the project.

Before construction activities occur in areas containing sensitive biological resources within the off-site facilities area, all workers shall be educated by a City of Chula Vista-approved biologist to recognize and avoid those areas that have been marked as sensitive biological resources.

CV-BIO-3 Best Management Practices. Best management practices will be implemented during all grading activities to reduce potential indirect effects on special-status species and habitat. Best management practices will include the following:

- Prior to ground disturbance, all permanent and temporary disturbance areas shall be clearly delineated by orange construction fencing and the identification of environmentally sensitive areas with flagging and/or fencing.
- All trash will be properly stored and removed from the site daily to prevent attracting wildlife to the construction area.
- Vehicles and equipment will be stored only on pre-designated staging areas in disturbed or developed areas. Fueling should be conducted in a manner that prevents spillage of fuel into riparian or wetland habitats.
- All maintenance of vehicles and equipment will be conducted in a manner so that oils and other hazardous materials will not discharge into riparian or wetland habitats.
- Dust control measures will be implemented to minimize the settling of dust on vegetation.
- Appropriate firefighting equipment (e.g., extinguishers, shovels, water tankers) will be available on the site during all phases of project construction, and appropriate fire prevention measures will be taken to help minimize the chance of human-caused wildfires.
- All construction will be performed between dawn and dusk to the degree feasible to minimize potential indirect effects (e.g., increased depredation) on the species beyond the limits of disturbance.

6.2.1.2 City of San Diego

As discussed above, impacts to 0.04 acre of Diegan coastal sage scrub are less than significant in the context of the City of San Diego's MSCP Subarea Plan as they total less than the City's 0.10-acre significance threshold. However, the project's total impact to 3.43 acre of Diegan coastal sage scrub, which includes 3.39 acres in the City of Chula Vista and 0.04 acre in the City of San Diego, would be collectively significant and mitigation would be required. Therefore, impacts to Diegan coastal sage scrub would be mitigated via habitat mitigation measure CV-BIO-1. In addition, indirect impacts to sensitive habitats in the City of San Diego would be mitigated via mitigation measures CV-BIO-2 and CV-BIO-3.

6.2.2 Special-Status Plant Species

6.2.2.1 City of Chula Vista

Direct impacts to special-status plant species in the City of Chula Vista would be less than significant and no mitigation is warranted. Indirect impacts to special-status plant species in the City of Chula Vista would be avoided through biological monitoring, construction fencing, and BMPs as described via CV-BIO-2 and CV-BIO-3.

6.2.2.2 City of San Diego

The No Annexation Scenario would result in significant direct impacts to Otay tarplant (14 individuals) within the City of San Diego. The No Annexation Scenario would mitigate for impacts to Otay tarplant via habitat preservation and restoration or purchase of off-site mitigation credits at a City of San Diego-approved mitigation bank, as detailed in SD-BIO-3.

Indirect impacts to special status plants located adjacent to the project in the City of San Diego would be avoided through biological monitoring, construction fencing, and BMPs as described via CV-BIO-2 and CV-BIO-3.

6.2.3 Special-Status Wildlife Species

6.2.3.1 City of Chula Vista

The No Annexation Scenario would result in potential significant direct and indirect impacts to special-status wildlife within the City of Chula Vista. To mitigate for impacts to least Bell's vireo, burrowing owl, coastal California gnatcatcher, yellow warbler and yellow-breasted chat under the Annexation Scenario, mitigation measure CV-BIO-4 shall be implemented by the City of Chula Vista. Additionally, direct impacts to habitat would be mitigated through upland and wetland habitat mitigation measures described in CV-BIO-1 and CV-BIO-8, respectively. Potential direct and indirect impacts to least Bell's vireo and burrowing owl would be further mitigated by CV-BIO-5 and CV-BIO-6. Potential direct impacts to Crotch's bumble bee would be further mitigated by CV-BIO-7.

To mitigate for direct impacts to nesting birds under the No Annexation Scenario, the following measures shall be implemented by the City of Chula Vista:

CV-BIO-4 Preconstruction Nesting Bird Survey. To avoid any direct impacts to raptors and/or any migratory birds protected under the Migratory Bird Treaty Act, including nesting least Bell's vireo, burrowing owl, yellow warbler, and yellow-breasted chat, removal of habitat that supports active nests on the proposed area of disturbance should occur outside of the breeding season for these species. The breeding season is defined as February 15–August 15 for coastal California gnatcatcher and other non-raptor birds and January 15–August 31 for raptor species. If removal of habitat on the proposed area of disturbance must occur during the breeding season, the project Applicant shall retain a City of Chula Vista-approved biologist to conduct a preconstruction survey to determine the presence or absence of nesting birds on the proposed area of disturbance. The preconstruction survey must be conducted within 10 calendar days prior to the start of construction, and the results must be submitted to the City of Chula Vista for review and approval prior to initiating any construction activities. If nesting birds are detected, a letter report or mitigation plan, as deemed appropriate by the City of Chula Vista, shall be prepared and include proposed measures to be implemented to ensure that disturbance of breeding activities are avoided. The report or mitigation plan shall be submitted to the City of Chula Vista for review and approval and implemented to the satisfaction of the City of Chula Vista. The City of Chula Vista's mitigation monitor shall verify and approve that all measures identified in the report or mitigation plan are in place prior to and/or during construction.

To mitigate for direct and indirect impacts to least Bell's vireo under the No Annexation Scenario, the habitat mitigation identified in CV-BIO-8, as well as the following measures shall be implemented by the City of Chula Vista:

CV-BIO-5 Least Bell's Vireo Avoidance. For any work proposed between March 15 and September 15, a preconstruction survey for the least Bell's vireo shall be performed in order to reaffirm the presence and extent of occupied habitat. The preconstruction survey area for the species shall encompass all potentially suitable habitat within the project work zone, as well as a 300-foot survey buffer. The preconstruction survey shall be performed to the satisfaction of the Development Services Director (or their designee) by a qualified biologist familiar with the City of Chula Vista MSCP Subarea Plan. The results of the preconstruction survey must be submitted in a report to the Development Services Director (or their designee) for review and approval prior to the issuance of any land development permits and prior to initiating any construction activities. If least Bell's vireo is detected, a minimum 300-foot buffer delineated by orange biological fencing shall be established around the detected species to ensure that no work shall occur within occupied habitat from March 15 through September 15. On-site noise reduction techniques shall be implemented to ensure that construction noise levels not exceed 60 dB(A) L_{eq} at the location of any occupied sensitive habitat areas. The Development Services Director (or their designee) shall have the discretion to modify the buffer width depending on site-specific conditions. If the results of the preconstruction survey determine that the survey area is unoccupied, the work may commence at the discretion

of the Development Services Director (or their designee) following the review and approval of the preconstruction report.

To mitigate for direct and indirect impacts to burrowing owls under the No Annexation Scenario, the habitat mitigation identified in CV-BIO-1, as well as the following measures shall be implemented by the City of Chula Vista:

CV-BIO-6 Preconstruction Burrowing Owl Survey. Prior to issuance of any land development permits, including clearing, grubbing, and grading permits, the project Applicant shall retain a City of Chula Vista-approved biologist to conduct focused preconstruction surveys for burrowing owls. The surveys shall be performed no earlier than 30 days prior to the commencement of any clearing, grubbing, or grading activities. If occupied burrows are detected, the City of Chula Vista-approved biologist shall prepare a passive relocation mitigation plan subject to review and approval by the wildlife agencies and the City of Chula Vista, including any subsequent burrowing owl relocation plans to avoid impacts from construction-related activities.

To mitigate for direct impacts to foraging Crotch's bumble bee under the Annexation Scenario, the habitat mitigation identified in CV-BIO-1, as well as the following measures shall be implemented by the City of Chula Vista:

CV-BIO-7 Direct Impact Avoidance for Crotch's Bumble Bee. Prior to the Notice to Proceed for any construction permits, including but not limited to, the first Grading Permit, Demolition Plans/Permits and Building Plans/Permits, the Development Services Department (DSD) Director's Environmental Designee shall verify the following project requirements regarding the Crotch's bumble bee are shown on the construction plans:

A. To avoid impacts to Crotch's bumble bee, removal of habitat in the proposed area of disturbance must occur outside of the Colony Active Period between April 1 through August 31. If removal of habitat in the proposed area of disturbance must occur during the Colony Active Period, a Qualified Biologist shall conduct a pre-construction survey to determine the presence or absence of Crotch's bumble bee within the proposed area of disturbance.

B. A Qualified Biologist must demonstrate the following qualifications: at least 40 hours of experience surveying for bee or other co-occurring aerial invertebrate species (such as Quino checkerspot butterfly) and who have completed a Crotch's bumble bee detection/identification training by an expert Crotch's bumble bee entomologist; or the biologist must have at least 20 hours of experience directly observing Crotch's bumble bee.

C. The pre-construction survey shall be conducted during the colony active period between April 1 through August 31 by the Qualified Biologist prior to the issuance of Grading Permit, Demolition Plans/Permits and Building Plans/Permits and within one year prior to the initiation of project activities (including removal of vegetation). The pre-construction survey shall consist of photographic surveys following California

Department of Fish and Wildlife (CDFW) guidance (ie, Survey Considerations for California Endangered Species Act [CESA] Candidate Bumble Bee Species, dated June 6, 2023). The surveys shall consist of passive methods unless a Memorandum of Understanding is obtained, as described below. The surveys shall consist of three separate visits spaced two to four weeks apart. Survey results will be considered valid until the start of the next colony active period.

D. If additional activities (e.g., capture or handling) are deemed necessary to identify bumble bees of an unknown species that may be Crotch's bumble bee, then the Qualified Biologist shall obtain the required authorization via a Memorandum of Understanding or Scientific Collecting Permit pursuant to CDFW Survey Considerations for CESA Candidate Bumble Bee Species (CDFW 2023). Survey methods that involve lethal take of species are not acceptable.

E. The Qualified Biologist/owner permittee shall submit the results (including positive or negative survey results) of the pre-construction survey to City DSD (Mitigation Monitoring and Coordination) City Planning Department (MSCP) staff and CDFW for review and written approval prior to the issuance of Grading Permit, Demolition Plans/Permits and Building Plans/Permits.

F. If pre-construction surveys identify Crotch's bumble bee individuals on-site, the Qualified Biologist shall notify CDFW and the Qualified Biologist shall notify and consult with CDFW to determine whether project activities would result in impacts to Crotch's bumble bee, in which case an Incidental Take Permit ITP) may be required. If an ITP is required, it shall be obtained prior to issuance of Grading Permit, Demolition Plans/Permits and Building Plans/Permits and all necessary permit conditions shall be fulfilled prior to initiation of project activities. Take of any endangered, threatened, candidate species that results from the Project is prohibited, except as authorized by State law (California Fish and Game Code §§ 86, 2062, 2067, 2068, 2080, 2085; California Code of Regulations, Title 14, § 786.9) under the CESA.

G. Survey data shall be submitted by the Qualified Biologist to the CNDDB in accordance with the Memorandum of Understanding with CDFW, or Scientific Collecting Permit requirements, as applicable.

6.2.3.2 City of San Diego

The No Annexation Scenario would result in potential direct and indirect impacts to least Bell's vireo and burrowing owl, as well as direct impacts to Crotch's bumble bee foraging individuals and habitat within the City of San Diego. Impacts to least Bell's vireo and burrowing owl would be mitigated via habitat mitigation measures CV-BIO-1 through CV-BIO-3, and indirect impact avoidance measures CV-BIO-5 and CV-BIO-6. To mitigate for impacts to nesting least Bell's vireo within the City of San Diego, CV-BIO-5 would be implemented. To mitigate for impacts to burrowing owl under the No Annexation Scenario, CV-BIO-6 would be implemented. To mitigate for impacts to Crotch's bumble bee No Annexation Scenario, CV-BIO-1 and CV-BIO-8 would be implemented.

6.2.4 Jurisdictional Resources

6.2.4.1 City of Chula Vista

The No Annexation Scenario would result in potential direct and indirect impacts to jurisdictional resources within the City of Chula Vista. This includes direct impacts to a total of 0.40 acre of potential RWQCB wetland waters, CDFW riparian, and City of Chula Vista wetland, as detailed in Table 12. Indirect impacts to wetlands would be avoided through compliance with CV-BIO-2 and CV-BIO-3.

Table 12
Mitigation for Significant Impacts to Jurisdictional Resources (No Annexation Scenario)

Vegetation Community	Impact Acreage	City of Chula Vista Mitigation Ratio[a]	Total Mitigation Required (Acres)
Mule fat scrub	0.03	2:1	0.06
Southern willow scrub	0.15	2:1	0.30
Emergent wetland	0.18	2:1	0.36
Disturbed wetland	0.04	2:1	0.08
Total	0.40	—	0.80

[a]Mitigation is pursuant to the City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003).

To mitigate for direct impacts to jurisdictional resources under the No Annexation Scenario, the following measures shall be implemented by the City of Chula Vista:

CV-BIO-8 **Wetland Restoration/Creation and Permits**. Prior to issuance of land development permits by the City of Chula Vista for the No Annexation Scenario, including clearing, grubbing, grading, and/or construction permits that impact jurisdictional waters, the project applicant shall provide compensatory wetland mitigation resulting in no overall net loss of wetlands. A total of 0.40 acre of impacts to RWQCB wetland waters, CDFW riparian, and City of Chula Vista wetlands. A total of 0.80 acre of mitigation for permanent impacts shall be provided, at minimum, to City of Chula Vista. To ensure no net loss, this shall include a 1:1 creation or restoration component.

Prior to issuance of land development permits, including clearing, grubbing, grading, and/ or construction permits by the City of Chula Vista that impact jurisdictional waters, the project applicant shall obtain all necessary permits from RWQCB and CDFW, and shall mitigate direct impacts pursuant to the City of Chula Vista MSCP Subarea Plan and in accordance with the terms and conditions of all required permits. Areas under the jurisdictional authority of RWQCB and CDFW shall be delineated on all grading plans.

The applicant shall submit a Final Wetlands Mitigation and Monitoring Plan to the satisfaction of the City of Chula Vista, RWQCB, and CDFW. The plan shall include, at a minimum, an implementation strategy; appropriate seed mixtures and planting method; irrigation; quantitative and qualitative success criteria; a five-year maintenance, monitoring, and reporting program; an estimated completion time; contingency measures; and shall identify a long-term funding source. A Conceptual Wetland Mitigation Plan has been prepared and is included in Attachment 13 which identifies

planned wetlands restoration located within the City of San Diego. If restoration occurs in San Diego, the project applicant shall also be required to implement the Wetlands Mitigation and Monitoring Plan subject to the oversight and approval of the Development Services Department director (or their designee), City of San Diego Parks and Recreation Open Space Division, RWQCB, and CDFW and any additional requirements of SD-BIO-9 shall apply. If the restoration is completed in Chula Vista, the applicant shall be required to enter into a Secured Agreement with the City of Chula Vista consisting of a letter of credit, bond, or cash for 100 percent of the estimated costs associated with the implementation of the Wetland Mitigation Plan. The Applicant shall provide the endowment for the long-term funding source.

Should the purchase of additional mitigation credits be necessary to satisfy permit conditions from RWQCB and CDFW, applicant shall secure mitigation credits within a City of Chula Vista-approved conservation bank in accordance with the terms and conditions of all required permits. The applicant is required to present proof of mitigation credit purchase to the City of Chula Vista and the Wetland Agencies prior to issuance of any land development permits.

CV-BIO-9 HLIT Permit. Prior to issuance of any land development permits (including clearing, grubbing, and/or grading permits), the project will be required to obtain a HLIT Permit pursuant to Section 17.35 of the Chula Vista Municipal Code for impacts to MSCP Tier II and III habitats and wetland resources.

6.2.4.2 City of San Diego

As no direct impacts to jurisdictional resources would occur in the City of San Diego under the No Annexation Scenario, no mitigation is warranted. Indirect impacts to jurisdictional resources in the City of San Diego would be avoided through compliance with CV-BIO-2 and CV-BIO-3.

7.0 References Cited

American Ornithological Society
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ATTACHMENTS

ATTACHMENT 1

Habitat Loss and Incidental Take Ordinance Findings

The purpose of the Habitat Loss and Incidental Take (HLIT) regulations is to protect and conserve native habitat within the City of Chula Vista and the viability of the species supported by those habitats. HLIT regulations are intended to implement the City of Chula Vista Multiple Species Conservation Program (MSCP) Subarea Plan (City of Chula Vista 2003) and ensure that development occurs in a manner that protects the overall quality of the habitat resources, encourages a sensitive form of development, and retains biodiversity and interconnected habitats. HLIT regulations also intend to protect public health, safety, and welfare (Chula Vista Municipal Code [CVMC] 17.35 et seq.).

Projects within the City of Chula Vista's jurisdiction are required to comply with the City of Chula Vista's MSCP Subarea Plan. This includes obtaining a HLIT permit pursuant to the HLIT Ordinance. The proposed Nakano Project (project) is subject to this ordinance because, as stated in Section 5.2.2 Habitat Loss and Incidental Take Ordinance (City of Chula Vista 2003), the Subarea Plan requires issuance of an HLIT permit for "all development within the City's jurisdiction which is not located within the Development Areas of Covered Projects prior to issuance of any land development permit." The HLIT regulations apply to the earliest decision on any entitlement related to a Project Area located within the following mapped areas identified in the Chula Vista MSCP Subarea Plan (unless exempt as noted): (1) 100% Conservation Areas, (2) 75-100% Conservation Areas, and (3) Development Areas outside of Covered Projects.

The following are exempt from the requirements of the HLIT Ordinance:

1. Development of a Project Area that is one acre or less in size and located entirely in a mapped Development Area outside of Covered Projects.

2. Development of a Project Area which is located entirely within the mapped Development Area outside Covered Projects, and where it has been demonstrated to the satisfaction of the Director of Planning and Building, or his/her designee, that no Sensitive Biological Resources exist on the Project Area.

3. Development that is limited to interior modifications or repairs and any exterior repairs, alterations or maintenance that does not increase the footprint of an existing building or accessory structure, which will not encroach into identified Sensitive Biological Resources during or after construction.

4. Any project within the Development Area of a Covered Project.

5. Any project that has an effective incidental take permit from the Wildlife Agencies.

6. Continuance of Agricultural Operations.

Proposed Project Areas

The proposed project is within the City's jurisdiction (outside the Preserve) and is not categorized as a "covered project." In addition, exemption status for the proposed project does not apply. The proposed project is not located within lands designated as the Minor or Major Amendment Areas. As such, a Subarea Plan Amendment is not required.

The HLIT Ordinance requires biological evaluation of all resources on site for project's within development areas outside of covered projects that contain sensitive biological resources.

Section 5.2.2 HLIT Ordinance of the Subarea Plan (City of Chula Vista 2003) requires issuance of an HLIT permit for "all development within the City's jurisdiction which is not located within the Development Areas of Covered Projects prior to issuance of any land development permit." As such, the entire project area would require issuance of an HLIT permit. Pursuant to the City's HLIT Ordinance, Section 17.35.080 – Required Findings for Issuance of an HLIT Permit, written findings need to be prepared and submitted to the City of Chula Vista for review and approval prior to issuance of any land development permits, including clearing and grubbing or grading permits. Tables 1 and 2 summarize the project's conformity to the Required Findings and General MSCP Development Regulations for the HLIT Ordinance.

The mitigation measures included in Tables 1 and 2 are from the Biological Resources Technical Report for the Nakano Project (BTR) and address the proposed project's significant effects on special-status species and vegetation. With implementation of the proposed mitigation, the identified impacts will be reduced to less than significant and maintain the project's conformity to the Required Findings and General MSCP Development Regulations for the HLIT Ordinance.

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Table 1 Required Findings for Issuance of an HLIT Permit (Chula Vista Municipal Code 17.35.080)		
Required Findings for Issuance of an HLIT Permit (Section 17.35.080):	Analysis	Consistency
The proposed development in the project area and associated mitigation are consistent with the Chula Vista MSCP Subarea Plan as adopted on May 13, 2003, and as may be amended from time to time, the MSCP Implementation Guidelines, and the development standards set forth in Section 17.35.100 of the Municipal Code.	The project would impact sensitive biological resources within the on-site wetland areas, coastal sage scrub, and non-native grassland vegetation as well as the off-site non-native grassland as shown on BTR Figures 5-1 and 5-2. Mitigation for these impacts has been established in accordance with the ratios in the Subarea Plan. Mitigation measures have been incorporated into the project to compensate for direct and indirect impacts to sensitive vegetation communities (i.e., coastal sage scrub, non-native grassland, arundo-dominated riparian, southern willow scrub, non-vegetated channel, and mulefat scrub). Mitigation for impacts to these habitat types are described in CV-BIO-1, CV-BIO-2, CV-BIO-3, and CV-BIO-7. In addition, the project will be required to apply for and obtain all necessary regulatory agency permits as described in CV_BIO-7. Mitigation for these impacts will be in accordance with the City of Chula Vista MSCP Subarea Plan (HLIT). Prior to issuance of any land development permits, the applicant shall mitigate for direct impacts pursuant to Section 5.2.2 of the City's MSCP Subarea Plan (City of Chula Vista 2003). In compliance with the City's Subarea Plan, the applicant shall provide permittee responsible mitigation (e.g., habitat creation and enhancement) consistent with the ratios specified in Table 5-1 which are in accordance with the ratios set forth in the Subarea Plan.	Consistent
The nature and extent of mitigation required as a condition of the permit is reasonably related to and calculated to alleviate negative impacts created in the project area.	Appropriate mitigation measures, consistent with the MSCP, have been proposed and will be implemented for this project and are provided within the BTR.	Consistent
Narrow Endemic Findings	No narrow endemic species have been documented within the project site. However, there are 14 Otay tarplant (*Deinandra conjugens*) individuals within the off-site impact area located within the City of San Diego, which would not be regulated by the City of Chula Vista's HLIT Ordinance. Impacts to these 14 individuals would be mitigated through off-site restoration (SD-BIO-3).	Consistent
Wetland Findings	Wetlands impacts are anticipated from the proposed project due to necessary access into the project site from Dennery Road. See descriptions below.	Consistent
Prior to the issuance of a Land Development Permit or Clearing and Grubbing Permit, the project proponent	The proposed project will incorporate the removal of vegetation identified as Wetland, Tier II, and Tier III on Table 5-3 of the Chula Vista MSCP Subarea Plan (City of Chula Vista 2003). Impacts to these areas require a permit issued pursuant to	Consistent

Table 1 Required Findings for Issuance of an HLIT Permit (Chula Vista Municipal Code 17.35.080)		
Required Findings for Issuance of an HLIT Permit (Section 17.35.080):	Analysis	Consistency
will be required to obtain any applicable state and federal permits, with copies provided to the Director of Planning and Building or his/her designee.	Section 17.35 of the Municipal Code (the HLIT Ordinance). The HLIT Ordinance includes a provision for issuance of a Clearing and Grubbing Permit that allows removal of vegetation, including removal of root systems, which is not in association with other Land Development Work. A wetland delineation has been conducted for the project area and jurisdictional aquatic resources have been identified within the impact area. Further consultation with CDFW, USACE, and RWQCB will be conducted to verify the extent of jurisdiction for each agency. Upon this determination, the necessary permits will need to be obtained from the agencies and copies provided to the City prior to grading in order to address this finding in accordance with CV-BIO-7.	
Impacts to wetlands have been avoided and/or minimized to the maximum extent practicable, consistent with the City of Chula Vista MSCP Subarea Plan Section 5.2.4.	Impacts to wetlands within the City of Chula Vista's jurisdiction have been avoided and minimized to the greatest extent possible. Unavoidable impacts to wetlands will be mitigated as described in CV-BIO-7. Prior to issuance of any land development permits, the applicant shall mitigate for direct impacts pursuant to Section 5.2.2 of the City of Chula Vista MSCP Subarea Plan (City of Chula Vista 2003). In compliance with the City of Chula Vista Subarea Plan, the applicant shall provide permittee responsible mitigation (e.g., habitat creation and enhancement) consistent with the wetland ratios specified in Table 5-1.	Consistent
Unavoidable impacts to wetlands have been mitigated pursuant to Section 17.35.110.	As described in Section 4.3.1.1 of the HLIT Ordinance, several project components will incur unavoidable impacts to wetlands. These impacts are determined to be unavoidable and necessary to gain access to the project site from Dennery Road and to provide secondary emergency access, which is a health and safety requirement. Due to constrained space and access, the only other secondary access would be to construct a road across the Otay River, which would result in greater wetland impacts. CV-BIO-7 describe mitigation to unavoidable impacts to jurisdictional aquatic resources.	Consistent
HLIT = Habitat Loss and Incidental Take; MSCP = Multiple Species Conservation Program; BTR = Biological Resources Technical Report; MM = Mitigation Measure; CDFW = California Department of Fish and Wildlife; USACE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board.		

Table 2 General MSCP Development Regulations (Chula Vista Municipal Code 17.35.090)		
General MSCP Development Requirements (Section 17.35.090)	Analysis	Consistency
Overall development within the Project Area including public facilities and circulation shall be located to minimize impacts to Sensitive Biological Resources in accordance with this chapter of the Chula Vista MSCP Subarea Plan and the MSCP Implementation Guidelines.	As described in Section 5.1.9.3 of the HLIT Ordinance, compliance with several standard measures will be required to address habitat loss. Impacts to coastal sage scrub (Tier II), non-native grassland (Tier III), and wetland habitats are considered significant under the City of Chula Vista's HLIT Ordinance and require mitigation (Subarea Plan Tables 5-3 and 5-6; City of Chula Vista 2003). Impacts to upland and wetland vegetation communities within the on-site and off-site project area are provided in CV-BIO-1 and CV-BIO-7. Mitigation will be in accordance with the HLIT Ordinance, as described in Table 5-1. No narrow endemics for Chula Vista Subarea have been documented to occur within the project site. However, off-site project areas located within the City of San Diego, which would not be regulated by the City of Chula Vista's HLIT Ordinance, would impact four Otay tarplant individuals. Impacts to Otay tarplant within the City of San Diego's jurisdiction would be mitigated through off-site restoration (SD-BIO-3). Prior to issuance of any land development permits, the applicant shall mitigate for direct impacts pursuant to Section 5.2.2 of the City of Chula Vista's MSCP Subarea Plan. In compliance with the City of Chula Vista's Subarea Plan, the applicant shall secure mitigation credits within a City of Chula Vista/Wildlife Agency-approved Conservation Bank or other approved location offering such credits consistent with the upland and wetland ratios specified in Table 5-1 (City of Chula Vista 2003).	Consistent
Pursuant to Chapter 15.04 of the Chula Vista Municipal Code, no Land Development or Clearing and Grubbing Permit that allows clearing, grubbing, or grading of Natural Vegetation shall be issued on any portion of a Project Area where impacts are proposed to Wetlands or Listed Non-covered Species until all applicable federal and state permits have been issued.	The project would impact potential USACE/RWQCB wetland waters, CDFW riparian, and City of Chula Vista wetland (BTR Table 5-2). The applicant for City of Chula Vista entitlements would be required to obtain a 404 permit from USACE, a 401 permit from RWQCB, and Section 1600 agreements from CDFW (CV-BIO-7).	Consistent
Impacts to Wetlands shall be avoided to the maximum extent practicable. Where impacts to Wetlands are not avoided, impacts shall be minimized and mitigated pursuant to Section 17.35.110 of the Municipal Code.	Impacts to wetlands within the City of Chula Vista's jurisdiction have been avoided and minimized to the greatest extent possible. Unavoidable impacts to wetlands will be mitigated as described in MM-BIO-7. Prior to issuance of any land development permits, the applicant shall mitigate for direct impacts pursuant to Section 5.2.2 of the City's MSCP Subarea Plan (City of Chula Vista 2003). In compliance with the City	Consistent

Table 2 General MSCP Development Regulations (Chula Vista Municipal Code 17.35.090)		
General MSCP Development Requirements (Section 17.35.090)	Analysis	Consistency
	of Chula Vista Subarea Plan, the applicant shall secure mitigation credits within a City/Wildlife Agency-approved Conservation Bank or other approved location offering such credits consistent with the wetland ratios specified in Table 5-1. As described in Section 4.3.2.1 of the BTR (relating to the HLIT Ordinance), several project components will incur unavoidable impacts to wetlands. These impacts are determined to be unavoidable and necessary to gain access to the project site from Dennery Road and to provide secondary emergency access. CV_BIO-7 describes mitigation to unavoidable impacts to jurisdictional aquatic resources.	
No temporary disturbance or storage of material or equipment is permitted in Sensitive Biological Resources unless the disturbance or storage occurs within an area approved by the City for development or unless it can be demonstrated that the disturbance or storage will not cause permanent habitat loss and the land will be revegetated and restored in accordance with the MSCP Implementation Guidelines.	No temporary disturbance would occur within sensitive biology resources. Temporary impacts will be avoided through CV-BIO-2 and CV-BIO-3.	Consistent
Grading during wildlife breeding seasons shall be avoided or modified consistent with the requirements of the Chula Vista MSCP Subarea Plan and in accordance with the MSCP Implementation Guidelines.	To avoid any direct impacts associated with construction activities, CV-BIO-4 is proposed to encourage construction outside of the breeding season (February 1 through September 15). If construction does occur during the breeding season, specific actions would be taken to avoid impacts consistent with the requirements of the City of Chula Vista MSCP Subarea Plan and in accordance with the MSCP Implementation Guidelines (see CV-BIO-4).	Consistent
All fuel modification brush management zones required as a result of new development and as required by the City Fire Marshal shall be located outside the Preserve.	All fuel modification shall be incorporated into development plans and shall not include any areas within the Preserve.	Consistent
MSCP = Multiple Species Conservation Program; HLIT = Habitat Loss and Incidental Take; MM = Mitigation Measure; USACE = U.S. Army Corps of Engineers; RWQCB = Regional Water Quality Control Board; CDFW = California Department of Fish and Wildlife; BTR = Biological Resources Technical Report		

ATTACHMENT 2

2020 Protocol Coastal California Gnatcatcher Survey Report

605 THIRD STREET
ENCINITAS, CALIFORNIA 92024
T 760.942.5147 F 760.632.0164

March 30, 2020 12476.02

U.S. Fish and Wildlife Service
Attention: Recovery Permit Coordinator
2177 Salk Avenue, No. 250
Carlsbad, California 92008

Subject: 2020 Focused Coastal California Gnatcatcher Survey Report for the Proposed Nakano Project, County of San Diego, California

Dear Recovery Permit Coordinator:

This letter report documents the results of three protocol-level focused surveys for the coastal California gnatcatcher (*Polioptila californica californica*) (CAGN) that were conducted for the proposed Nakano Project (project), which is located on an approximately 24-acre site, by Dudek biologist Erin Bergman between February 20, 2020 and March 5, 2020. The surveys were conducted across the entire site within both suitable and unsuitable habitat.

The coastal California gnatcatcher is a federally listed threatened species and a California Department of Fish and Wildlife species of special concern. It is closely associated with coastal sage scrub habitat and, therefore, threatened primarily by loss, degradation, and fragmentation of this habitat. Coastal California gnatcatcher typically occurs below 820 feet above mean sea level within 22 miles of the coast. Studies have suggested that coastal California gnatcatcher avoid nesting on very steep slopes (greater than 40%) (Bontrager 1991). Coastal California gnatcatcher is also impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism (Braden et al. 1997).

Project Location and Existing Conditions

The approximately 24-acre project site is located east of Interstate 805 and west of Dennery Road and associated developments. The southern portion of the site is just above Palm Avenue and a Kaiser Building. North of the project site is Otay River in San Diego County, California. The site is generally surrounded by development except for Otay River directly north of the site (Figure 1).

The site occupies Township 18 South, Range 1 West, Section 19, on the U.S. Geological Survey 7.5-minute Imperial Beach quadrangle maps (Figure 1). The site includes Assessor's Parcel Number (APN) 624-071-0200, as well as an off-site improvement area on a portion of APN 645-400-0500 that is required to provide site access along Dennery Road. Elevations range from approximately 96 feet above mean sea level to approximately 193 feet above mean sea level.

Suitable habitat included the eastern and southern portion of the project site. The southern portion of the project site consists of high quality coastal sage scrub with some small patches of jojoba (*Simmondsia chinensis*). The eastern portion of the project site consists of restored coastal sage scrub. Besides California sagebrush (*Artemisia californica*), many of the plantings within this eastern coastal sage scrub plant pallet include San Diego sunflower (*Bahiopsis laciniata*) and San Diego bur-sage (*Ambrosia chenopodifolia*). The project site consists of a former agricultural use area with mostly

flat ground with intersecting trails. The eastern and southern portion of the site consist of small hillsides with intersecting trails.

Vegetation Communities

Two plant communities were identified within the project site as being suitable coastal California gnatcatcher habitat: Diegan coastal sage scrub and Diegan coastal sage scrub–Baccharis dominated. In addition, all other vegetation communities were surveyed. However, all other vegetation communities within the project site are not considered suitable habitat for coastal California gnatcatcher and would not be suitable for nesting. Approximately, 4.5 acres of suitable habitat for coastal California gnatcatcher was mapped on site in accordance with Holland (1986) and Oberbauer et al. (2008) as described in Table 1, but all 24 acres of the site were surveyed, as well as an additional 100-foot buffer.

The remaining plant communities and land cover types identified on site that are not considered suitable coastal California gnatcatcher habitat include disturbed habitat, eucalyptus woodland, non-native grassland, non-native grassland-broadleaf dominated, southern riparian scrub, southern willow scrub and arundo-dominated riparian. The spatial distribution of plant communities and land covers on the site, as well as the route used to survey, are shown on Figures 2 and 3.

Table 1. Vegetation Communities and Land Cover Types on the Project Site

Vegetation Community/Land Cover	Acres
Diegan coastal sage scrub	4.37
Diegan coastal sage scrub-Baccharis dominated	0.22
Disturbed habitat	0.70
Eucalyptus woodland	0.92
Non-native grassland	15.8
Non-native grassland–broadleaf dominated	1.73
Southern riparian scrub	0.07
Southern willow scrub	0.84
Arundo dominated riparian	0.01
Total*	**24.0**

*Total may be off due to rounding

Diegan Coastal Sage Scrub (32500)

The location of Diegan coastal sage scrub that provides suitable habitat for coastal California gnatcatcher is shown on Figure 3 and discussed below.

Diegan coastal sage scrub (coastal sage scrub) is a native plant community composed of a variety of soft, low, aromatic shrubs, characteristically dominated by drought-deciduous species such as California sagebrush, California buckwheat (*Eriogonum fasciculatum*), and sages (*Salvia* spp.), with scattered evergreen shrubs, including lemonadeberry (*Rhus integrifolia*), and laurel sumac (*Malosma laurina*). It typically develops on south-facing slopes

and other xeric locations (Holland 1986). Coastal sage scrub is recognized as a sensitive plant community by local, state, and federal resource agencies. It supports a rich diversity of sensitive plants and animals, and it is estimated that it has been reduced by 75%–80% of its historical coverage throughout southern California. It is the focus of the current State of California NCCP (Oberbauer 2008).

Within the study area, dominant species include California sage scrub, California buckwheat, spreading goldenbush (*Isocoma menziesii*), deerweed (*Acmispon glaber*), black sage (*Salvia mellifera*), jojoba, California adolphia (*Adolphia californica*), San Diego bur-sage, San Diego sunflower and lemonadeberry. Less commonly occurring species include wild cucumber (*Marah macrocarpus*), pygmyweed (*Crassula connata*) and mock parsley (*Apiastrum angustifolium*). Diegan coastal sage scrub is a dominant plant community within the study area. The Diegan coastal sage scrub within the study area is high quality habitat for numerous species. Few non-native plant species are present within this community and the floor consists of numerous bryophytes, spike mosses, small annuals and cryptogamic crusts. Approximately, 4.37 acres of Diegan coastal sage scrub occurs within the project site.

Diegan Coastal Sage Scrub - Baccharis dominated (32530)

Diegan coastal sage scrub-Baccharis dominated is similar to coastal sage scrub but is dominated by baccharis species. Diegan coastal sage scrub-Baccharis dominated typically occurs where soils are nutrient poor and disturbance is present. Diegan coastal sage scrub-Baccharis dominated is typically fills in areas after high levels of disturbance (Oberbauer 2008).

Within the study area, broom baccharis (*Baccharis sarothorides*) dominates the site and makes up approximately 70 percent cover of the vegetation within this community. The understory of this community consists mostly of weedy species with a few natives. Less commonly occurring species occurring within the understory of the broom baccharis include annual yellow sweetclover (*Melilotus indicus*), cheeseweed (*Malva parviflora*), slender leaf iceplant (*Mesembryanthemum nodiflorum*), pygmy weed (*Crassula connata*), short-pod mustard (*Hirchfeldia incana)* and black mustard *(Brassica nigra*). Large sections of this community are disturbed and some portions consist of bare soils. Overall, this community is a disturbed coastal sage scrub community when compared with Diegan coastal sage scrub (32500).

The remaining plant communities and land cover types identified on site that are not considered suitable coastal California gnatcatcher habitat and therefore are not described in detail like the coastal sage scrub types.

Methods

Three focused surveys for coastal California gnatcatcher were performed within suitable habitat between February 20, 2020 and March 5, 2020 by coastal California gnatcatcher-permitted biologist Erin Bergman (TE-53771B-0) according to the schedule in Table 2. The surveys were conducted following the currently accepted protocol of the U.S. Fish and Wildlife Service, *Coastal California Gnatcatcher (Polioptila californica californica) Presence/Absence Survey Protocol* (USFWS 1997), using the breeding season survey methods. Coastal California gnatcatchers were documented using a variety of features that helped distinguish individuals from one another in order to assist with determining the number of pairs/individuals. Some distinguishing features include male cap color (variation in the darkness of the black cap) and male cap thickness, width, and length. Coastal California gnatcatcher color patterns, unique markings, behaviors, pitch of call, and song variation were used to separate observations.

Table 2. Survey Details and Conditions

Date	Time	Survey Effort (acres/hour)	Survey Conditions
02/20/2020	8:29 a.m.–11:53 p.m.	8	60°F–65°F; 0%–50% cloud cover, 0–3 mile per hour winds
02/27/2020	7:58 a.m.–11:11 p.m.	8	60°F–76°F; 0%–25% cloud cover; 0–2 mile per hour winds
03/05/2020	6:43 a.m.–11:43 p.m.	5	58°F–74°F; 0%–75% cloud cover; 0–3 mile per hour winds

Survey routes for site visits completely covered the areas of suitable coastal California gnatcatcher habitat on site, as shown on Figure 2. Appropriate birding binoculars (8 x 42) were used to aid in detecting and identifying bird species. A recording of coastal California gnatcatcher vocalizations was used to elicit a response from the species. The recording was played approximately every 50 to 100 feet, and when a coastal California gnatcatcher was detected, the playing of the recording ceased to avoid harassment. A 100-scale (1 inch = 100 feet) aerial photograph of the study area overlaid with the vegetation and site boundaries was used to map any coastal California gnatcatcher detected. Weather conditions, time of day, and season were within protocol limits and appropriate for the detection of gnatcatchers, as shown in Table 2.

Results

During the survey efforts, coastal California gnatcatcher observations included one pair. The following discussion provides the description of the location and method of this observation.

Pair 1

One pair of coastal California gnatcatcher was identified during all three surveys. The pair observed during the three surveys is shown on Figure 3.

The pair was found both visually and acoustically each survey visit in the furthest southcentral portion of the site. Since it was breeding season, it was easy to identify the male with a fine narrow dark black cap and the female close by. No other CAGN was observed based on noted physical structures and distinctive calls of the pair back and forth. They were observed to be within a few meters other each other during all surveys.

In total, 31 wildlife species were recorded during the survey efforts and are included in Appendix A.

Appendix B describes plants noted while performing CAGN surveys but is not comprehensive. A full rare plant survey is planned to be performed during spring of 2020.

Dudek certifies that the information in this survey report and attached exhibits fully and accurately represents the work conducted by the coastal California gnatcatcher–permitted biologist who conducted this focused survey. Please feel free to contact Erin Bergman at ebergman@dudek.com if you have any questions regarding the contents of this report.

Sincerely,



Erin Bergman

Atts: *Figure 1: Project Location*
Figure 2: Survey Routes
Figure 3: CAGN Locations
Appendix A: Wildlife Species Observed During the 2020 Nakano Coastal California Gnatcatcher Surveys
Appendix B: Plant Species Observed During the 2020 Nakano Coastal California Gnatcatcher Surveys

cc: *Erin Bergman, Dudek*
Dawna Marshall, Dudek

References

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Appendix A

Wildlife Species Observed During the 2020 Nakano Coastal California Gnatcatcher Surveys

BIRD

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS & BUSHTITS

Psaltriparus minimus—bushtit

FALCONS

FALCONIDAE—CARACARAS & FALCONS

Falco sparverius—American kestrel

FINCHES

FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES & ALLIES

Haemorhous mexicanus—house finch

Spinus psaltria—lesser goldfinch

FLYCATCHERS

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis nigricans—black phoebe

Sayornis saya—Say's phoebe

Tyrannus forficatus—scissor-tailed flycatcher

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, & ALLIES

Buteo jamaicensis—red-tailed hawk

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

JAYS, MAGPIES & CROWS

CORVIDAE—CROWS & JAYS

Corvus brachyrhynchos—American crow

Corvus corax—common raven

MOCKINGBIRDS & THRASHERS

MIMIDAE—MOCKINGBIRDS & THRASHERS

Toxostoma redivivum—California thrasher

NEW WORLD VULTURES

CATHARTIDAE—NEW WORLD VULTURES

Cathartes aura—turkey vulture

OLD WORLD SPARROWS

PASSERIDAE—OLD WORLD SPARROWS

* *Passer domesticus*—house sparrow

OLD WORLD WARBLERS & GNATCATCHERS

POLIOPTILIDAE—GNATCATCHERS

Polioptila caerulea—blue-gray gnatcatcher

Polioptila californica californica—coastal California gnatcatcher

PIGEONS & DOVES

COLUMBIDAE—PIGEONS & DOVES

Zenaida macroura—mourning dove

WOOD WARBLERS & ALLIES

PARULIDAE—WOOD-WARBLERS

Geothlypis trichas—common yellowthroat

Setophaga coronata—yellow-rumped warbler

NEW WORLD SPARROWS

PASSERELLIDAE—NEW WORLD SPARROWS

Melospiza melodia—song sparrow

Melozone crissalis—California towhee

TYPICAL WARBLERS, PARROTBILLS, WRENTIT

SYLVIIDAE—SYLVIID WARBLERS

Chamaea fasciata—wrentit

INVERTEBRATE

BUTTERFLIES

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Danaus plexippus—monarch

Nymphalis antiopa—mourning cloak

Vanessa cardui—painted lady

HESPERIIDAE—SKIPPERS

Erynnis funeralis—funereal duskywing

PAPILIONIDAE—SWALLOWTAILS

Papilio rutulus—western tiger swallowtail

Papilio zelicaon—anise swallowtail

PIERIDAE—WHITES & SULFURS

Anthocharis sara sara—Pacific sara orangetip

MAMMAL

HARES & RABBITS

LEPORIDAE—HARES & RABBITS

Sylvilagus audubonii—desert cottontail

SQUIRRELS

SCIURIDAE—SQUIRRELS

Spermophilus (Otospermophilus) beecheyi—California ground squirrel

* Indicates non-native species.

Appendix B

Plant Species Observed During the 2020 Nakano Coastal California Gnatcatcher Surveys

LYCOPHYTES

SELAGINELLACEAE – Spike-Moss Family

Selaginella cinerascens – mesa spike-moss

ANGIOSPERMS: EUDICOTS

AMARANTHACEAE – Amaranth Family

Malosma laurina – laurel sumac

Rhus integrifolia – lemonadeberry

* *Schinus molle* – Peruvian pepper tree

APIACEAE – Carrot Family

* *Foeniculum vulgare* – sweet fennel

ASTERACEAE – Sunflower Family

Ambrosia chenopodiifolia – San Diego bur-sage

Artemisia californica – coastal sagebrush

* *Centaurea melitensis* – tocalote

* *Glebionis coronaria* – garland/crown daisy

* *Senecio vulgaris* – common groundsel

Baccharis pilularis – chaparral broom, coyote brush

Bahiopsis laciniata – San Diego sunflower

Isocoma menziesii – coastal goldenbush

BORAGINACEAE – Borage Family

Amsinckia menziesii – rigid fiddleneck

BRASSICACEAE – Mustard Family

* *Brassica nigra* – black mustard

* *Hirschfeldia incana* – short-pod mustard

CACTACEAE – Cactus Family

Cylindropuntia prolifera – coast cholla

Ferocactus viridescens var. *viridescens* – coast barrel cactus

CHENOPODIACEAE – Goosefoot Family

* *Atriplex semibaccata* – Australian saltbush

CUCURBITACEAE – Gourd Family

Marah macrocarpa – manroot, wild-cucumber

FABACEAE – Legume Family

* *Acacia redolens* – vanilla scented wattle

* *Melilotus indicus* – Indian sweetclover

GERANIACEAE – Geranium Family

* *Erodium cicutarium* – red-stem filaree/storksbill

MYRTACEAE – Myrtle Family

* *Eucalyptus camaldulensis* – river red gum

NYCTAGINACEAE – Four O'clock Family

Mirabilis laevis – wishbone plant

POLEMONIACEAE – Phlox Family

Linanthus dianthiflorus – farinose ground pink

POLYGONACEAE – Buckwheat Family

Eriogonum fasciculatum var. *fasciculatum* – coast California buckwheat

* *Rumex crispus* – curly dock

PORTULACACEAE – Purslane Family

* *Portulaca oleracea* – common purslane

RHAMNACEAE – Buckthorn Family

Adolphia californica – spineshrub

SALICACEAE – Willow Family

Salix exigua – narrow-leaf willow

SIMMONDSIACEAE – Jojoba Family

Simmondsia chinensis – jojoba, goatnut

SOLANACEAE – Nightshade Family

* *Nicotiana glauca* – tree tobacco

TAMARICACEAE – Tamarisk Family

* *Tamarix ramosissima* – saltcedar

URTICACEAE – Stinging Nettle Family

* *Urtica urens* – dwarf nettle

ANGIOSPERMS: MONOCOTS

AGAVACEAE – Agave Family

Yucca schidigera – Mohave yucca

ALLIACEAE – Onion Family

Allium praecox – early onion

ARECACEAE – Palm Family

* *Washingtonia robusta* – Mexican fan palm

POACEAE – Grass Family

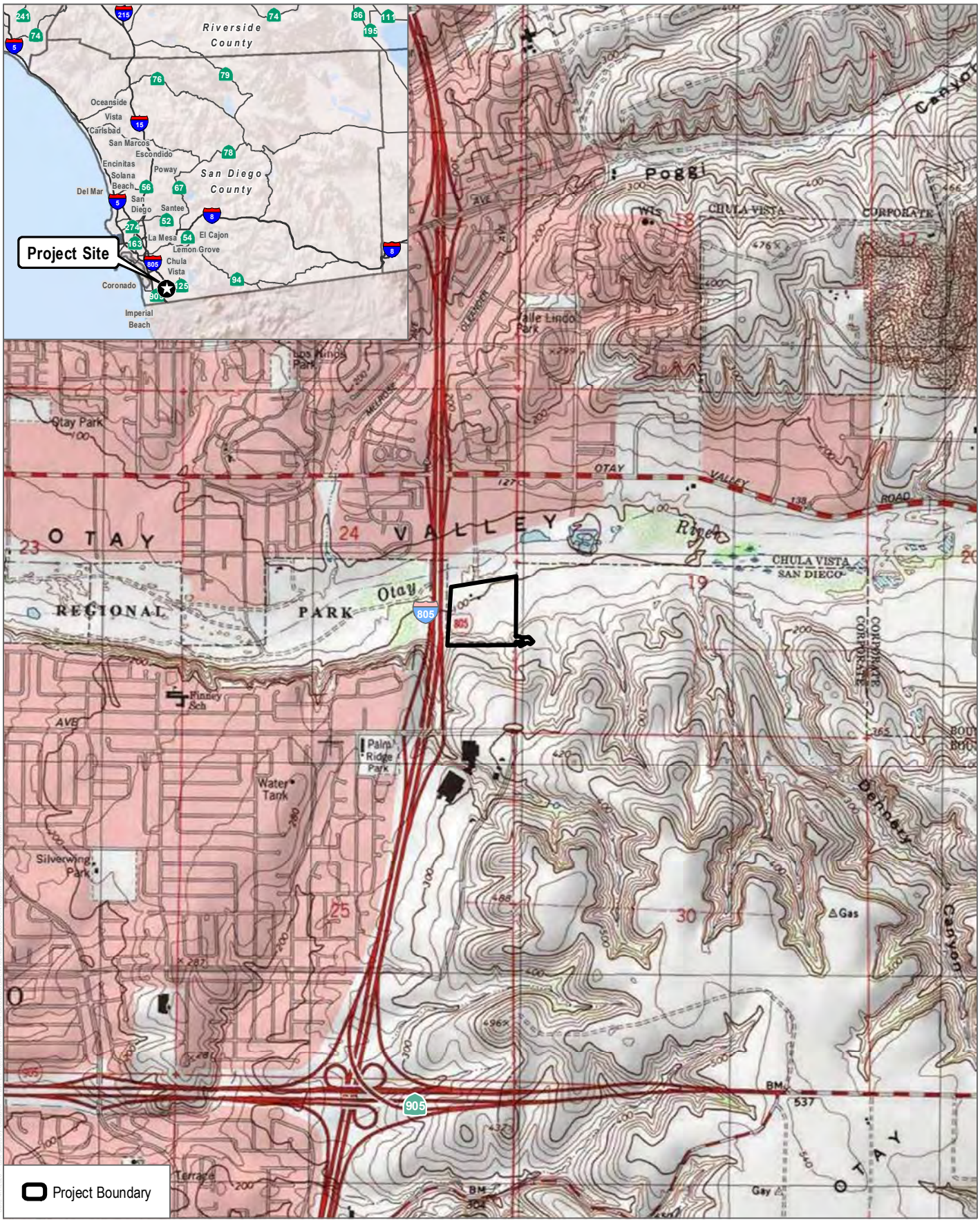
* *Avena barbata* – slender wild oat

* *Bromus diandrus* – ripgut grass

* *Cortaderia jubata* – purple pampas grass

* *Festuca perennis* – perennial rye grass

* Indicates non-native species.



SOURCE: USGS 7.5-Minute Series Imperial Beach Quadrangle

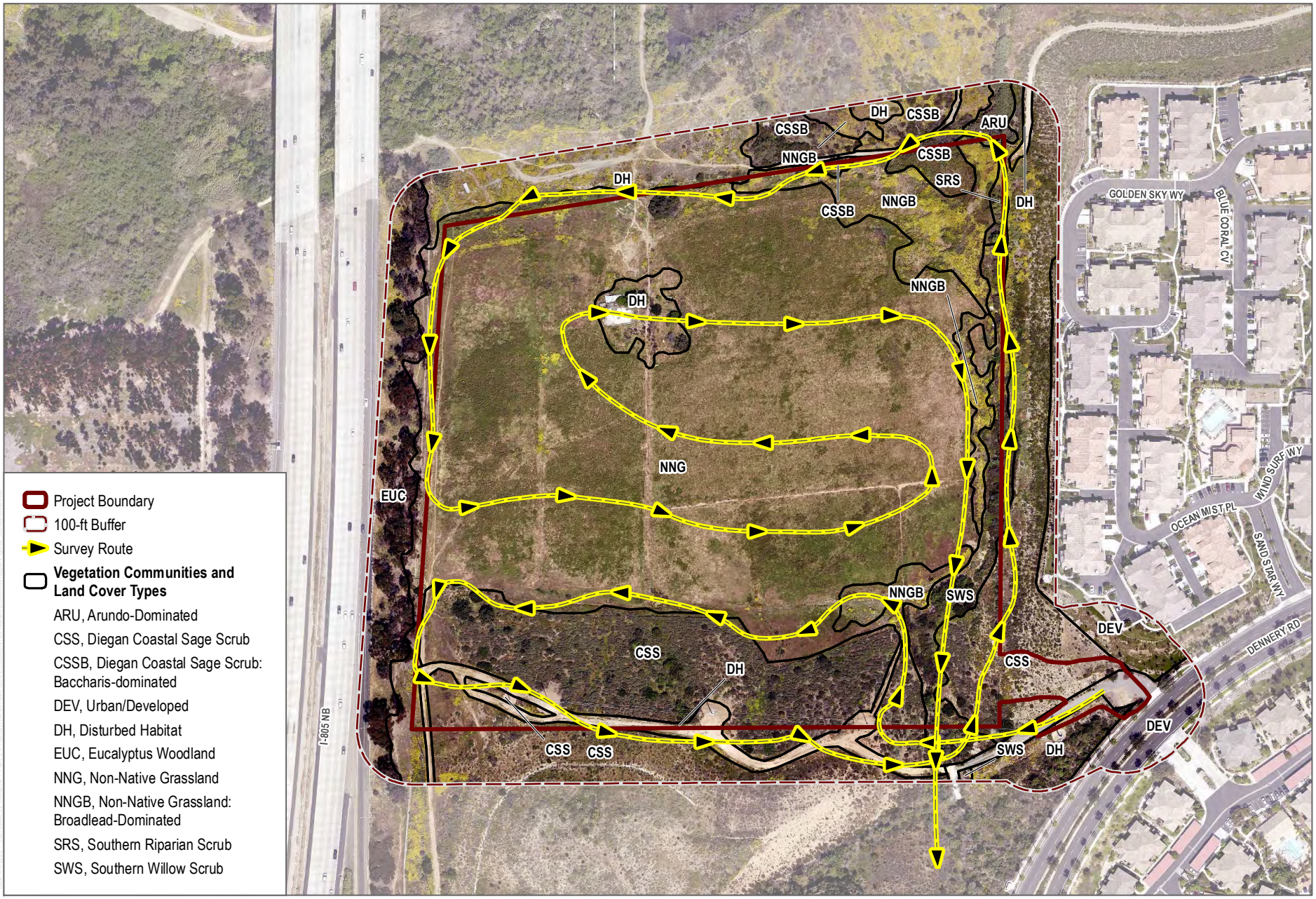
DUDEK

0 1,000 2,000 Feet

FIGURE 1

Project Location

Nakano Project



SOURCE: SANGIS 2017

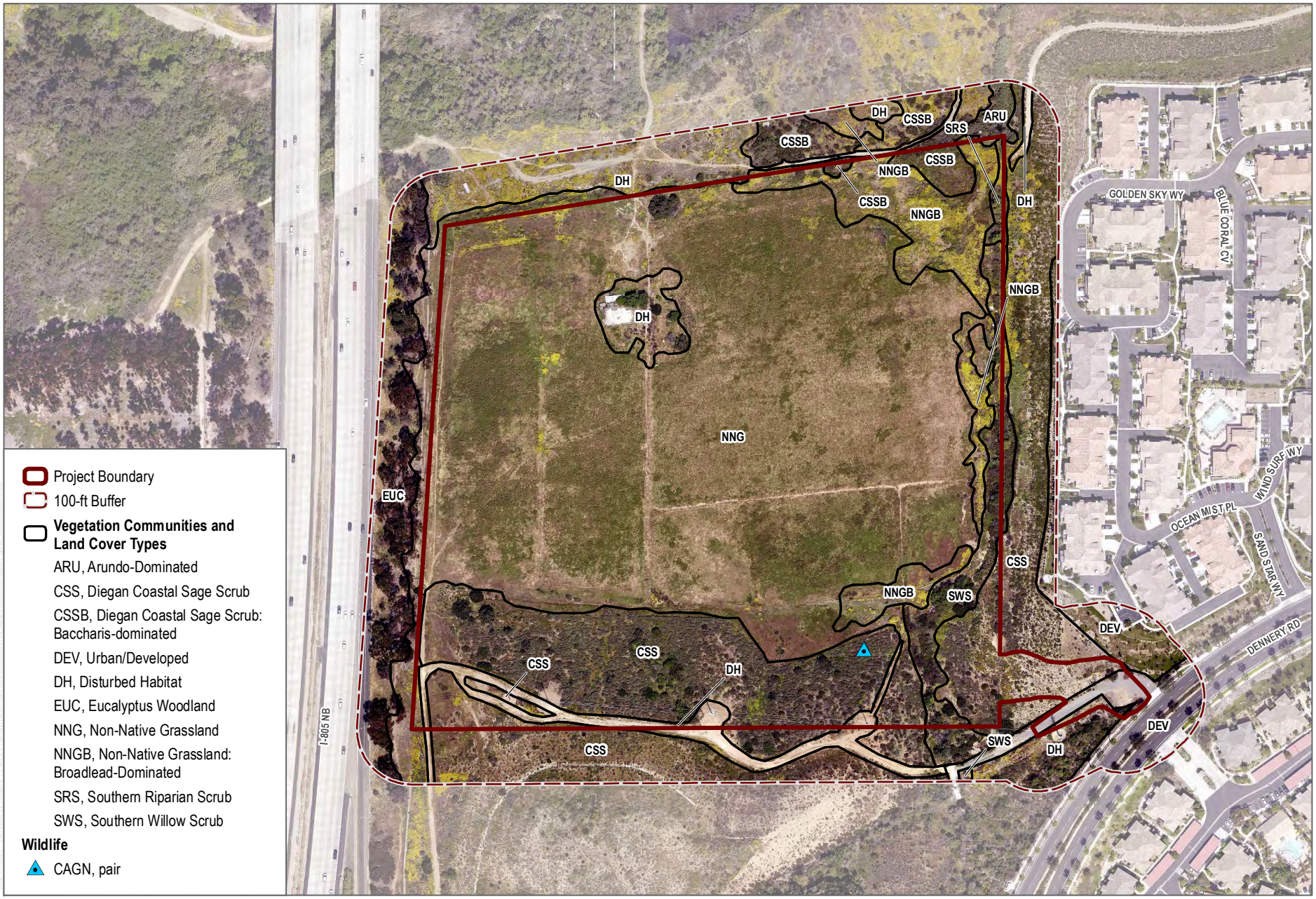
DUDEK

0 115 230 Feet

FIGURE 2

Survey Routes

Nakano Project



SOURCE: SANGIS 2017

DUDEK

0 115 230 Feet

FIGURE 3

CAGN Locations

Nakano Project

ATTACHMENT 3

2020 Protocol Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report

2280 HISTORIC DECATUR ROAD, SUITE 200
SAN DIEGO, CALIFORNIA 92106
T 619.591.1370 F 619.591.1399

September 1, 2020 12476.02

U.S. Fish and Wildlife Service
Attn: Stacey Love, Recovery Permit Coordinator
2177 Salk Avenue, Suite 250
Carlsbad, California 92008

Subject: Protocol-Level Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Nakano Project, San Diego County, California

Dear Recovery Permit Coordinator:

This report documents the results of eight protocol-level presence/absence surveys for the state- and federally listed endangered least Bell's vireo (*Vireo bellii pusillus*), and five protocol-level presence/absence surveys for the state- and federally listed endangered southwestern willow flycatcher (*Empidonax traillii extimus*) conducted for the Nakano Project (project). The surveys were conducted in all areas of suitable least Bell's vireo and southwestern willow flycatcher habitat.

The southwestern willow flycatcher and least Bell's vireo are closely associated with riparian habitats, especially densely vegetated willow scrub and riparian forest vegetation. These species are threatened primarily by loss, degradation, and fragmentation of riparian habitats. They also are impacted by brown-headed cowbird (*Molothrus ater*) nest parasitism.

1 Location and Existing Conditions

The 24.6-acre project site is located to the northwest of Dennery Road in the City of Chula Vista, San Diego County, California (Figure 1). The project site is located within the northeast portion of the Imperial Beach U.S. Geological Survey (USGS) 7.5-minute quadrangle. Specifically, the project site is situated east of Interstate 805 (I-805), northwest of Dennery Road, and south of the Otay River. The City of San Diego is located directly east, south, and west of the project site.

2 Vegetation Communities

Vegetation communities identified within the project area as potentially suitable habitat for the southwestern willow flycatcher and least Bell's vireo include southern riparian scrub and southern willow scrub.

Southern Riparian Scrub

Southern riparian scrub is a wetland habitat dominated by small riparian trees and shrubs, and lacks taller riparian trees (Oberbauer et al. 2008). Southern riparian scrub occurs mostly in major river systems where flood scour occurs (Oberbauer et al. 2008). Characteristic species include arroyo willow (*Salix lasiolepis*), desertbroom (*Baccharis sarothroides*), and mulefat (*Baccharis salicifolia*), as well as other wetland shrubs. Southern riparian scrub is located in one patch within the northeastern section of the project site (Figures 2 and 3).

Southern Willow Scrub

Southern willow scrub is a dense, broad-leafed, winter-deciduous riparian thicket dominated by several willow species (*Salix* spp.), with scattered emergent Fremont cottonwood (*Populus fremontii*) and California sycamore (*Platanus racemosa*). This community was formerly extensive along the major rivers of coastal Southern California, but is now much reduced (Oberbauer et al. 2008). The areas mapped as southern willow scrub are located within a corridor along the eastern boundary of the project site (Figures 2 and 3).

3 Methods

Suitable habitat areas within the project area were surveyed eight times for vireo and five times for flycatcher. Flycatcher-permitted wildlife biologist Brock Ortega (Recovery Permit number TE813545) conducted sequential flycatcher/vireo surveys and vireo-only surveys, and Dudek wildlife biologist Shana Carey conducted vireo-only surveys (Table 1). Audio-playback techniques were used to elicit flycatcher responses during flycatcher surveys. Focused surveys for these species were initiated on May 22, 2020, and continued through July 31, 2020.

Table 1. Least Bell's Vireo and Southwestern Willow Flycatcher Survey Results

Survey Pass #/Focus	Date	Biologist	Hours	Conditions (temperature, cloud cover, wind speed)
1-SWFL 1-LBVI	05/22/2020	Brock Ortega	8:10 a.m.–10:00 a.m.	55°F–61°F; 60%–70% cc; 3 mph wind
2-SWFL 2-LBVI	06/01/2020	Brock Ortega	6:10 a.m.–8:00 a.m.	60°F–62°F; 80%–100% cc; 0–5 mph wind
3-LBVI	06/13/2020	Shana Carey	7:30 a.m.– 9:30 a.m.	64°F–69°F; 0% cc; 1–5 mph wind
3-SWFL 4-LBVI	06/21/2020	Brock Ortega	6:30 a.m.–8:10 a.m.	63°F–65°F; 5%–100% cc; 0–3 mph wind
4-SWFL 5-LBVI	07/01/2020	Brock Ortega	5:50 a.m.–8:00 a.m.	60°F–62°F; 100% cc; 0–3 mph wind
5-SWFL 6-LBVI	07/11/2020	Brock Ortega	6:10 a.m.–8:00 a.m.	65°F; 50%–100% cc; 0–3 mph wind
7-LBVI	07/21/2020	Brock Ortega	7:30 a.m.–9:00 a.m.	65°F–68°F; 0%–10% cc; 0–3 mph wind
8-LBVI	07/31/2020	Shana Carey	7:30 a.m.– 9:30 a.m.	68°F–75°F; 0% ccr; 1–4 mph wind

Notes: SWFL = southwestern willow flycatcher; LBVI = least Bell's vireo; °F = degrees Fahrenheit; cc = cloud cover; mph = miles per hour.

As directed by Stacey Love, U.S. Fish and Wildlife Service (USFWS) Recovery Permit Coordinator (via email sent on April 27, 2016), surveys for vireo and flycatcher were not conducted concurrently. Due to differences in detectability, surveys were conducted sequentially, with surveys for the flycatcher first (i.e., first thing in the morning) and surveys for the vireo conducted afterwards. The route was arranged to cover all suitable habitat on site (as depicted on Figure 2). A vegetation map (1:2,400 scale; 1 inch=200 feet) of the project area was available to record any detected vireo or flycatcher, all the locations of which will be depicted on the USGS Imperial Beach 7.5-minute quadrangle topographical map (Figure 4). Binoculars (10×50) were used to aid in detecting and identifying wildlife species.

The five surveys conducted for flycatcher followed the currently accepted protocol (*A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher* [Sogge et al. 2010]), which states that a minimum of five survey visits is needed to evaluate project effects on flycatchers. It is recommended that one survey is made between May 15 and 31, two surveys between June 1 and June 24, and two surveys between June 25 and July 17. Surveys during the final period (July 1 and July 11) were separated by at least five days. A tape of recorded flycatcher vocalizations was used, approximately every 50 to 100 feet within suitable habitat, to induce flycatcher responses. If a flycatcher had been detected, playing of the tape would have ceased to avoid harassment.

A Section 10(a)(1)(A) permit is not required to conduct presence/absence surveys for vireo. The eight surveys for vireo followed the currently accepted *Least Bell's Vireo Survey Guidelines* (USFWS 2001), which states that a minimum of eight survey visits should be made to all riparian areas and any other potential vireo habitats between April 10 and July 31. The site visits are required to be conducted at least 10 days apart to maximize the detection of early and late arrivals, females, non-vocal birds, and nesting pairs. Taped playback of vireo vocalizations was not used during the surveys. Surveys were conducted between dawn and noon and were not conducted during periods of excessive or abnormal cold, heat, wind, rain, or other inclement weather.

Weather conditions, time of day, and season were appropriate for the detection of flycatcher and vireo (Table 1).

4 Results

One willow flycatcher (*Empidonax traillii*) was detected within the survey area during the 2020 focused survey effort early in the season (Figures 3 and 4). It was observed on May 22, 2020, during the least Bell's vireo portion of the survey without the use of playback located in the central portion of the riparian corridor within southern willow scrub. Willow flycatcher was not detected during any of the subsequent focused species surveys or incidentally during other survey on site. Thus, the individual observed could not be concluded to be the state- and federally listed southwestern willow flycatcher (*E. traillii extimus*) because it did not remain during the third survey period.

Least Bell's vireos were detected within the project area during the 2020 focused survey effort (Figures 3 and 4). Most vireos were observed both visually and aurally by hearing males singing, and some were detected only aurally, indicating that breeding territories were being established or maintained over the course of the survey effort. There was one pair of vireos observed together in the northeast corner of the project site on June 13, 2020; however, this pair was not observed during subsequent focused surveys. Based on review of the mapped results, it is estimated that there may be approximately two separate vireo males attempting to establish breeding territories within the focused survey area. No vireo nests or nesting behavior were detected during focused surveys; however, nesting has a potential to occur within the project area, and is likely to occur within 500 feet of the project boundary, particularly within the Otay River.

A total of 49 wildlife species, including 41 bird species, were detected in the project area during focused surveys of the site and are listed in Attachment A. Common bird species observed include Anna's hummingbird (*Calypte anna*), house finches (*Haemorhous mexicanus*), and lesser goldfinches (*Spinus psaltria*). Brown-headed cowbirds (*Molothrus ater*), varying from one to three individuals, were observed on site.

The Willow Flycatcher Survey and Detection Form (Sogge et al. 2010) was filled out for each visit and is included in Attachment B. Representative photos of the habitat surveyed on site are included in Figure 5.

Please contact me at 760.479.4254 if there are any questions regarding this survey report. I certify that the information in this survey report and attached exhibits fully and accurately represent my work.

Sincerely,



Dudek
Brock Ortega
Senior Wildlife Biologist, Principal

Att.: *Figure 1, Project Location*
Figure 2, Survey Route
Figure 3, Species Locations
Figure 4, Species Locations on USGS Quad Basemap
Figure 5, Overview Photos of Habitat Surveyed
Attachment A, Wildlife Species Observed
Attachment B, Willow Flycatcher Survey and Detection Form

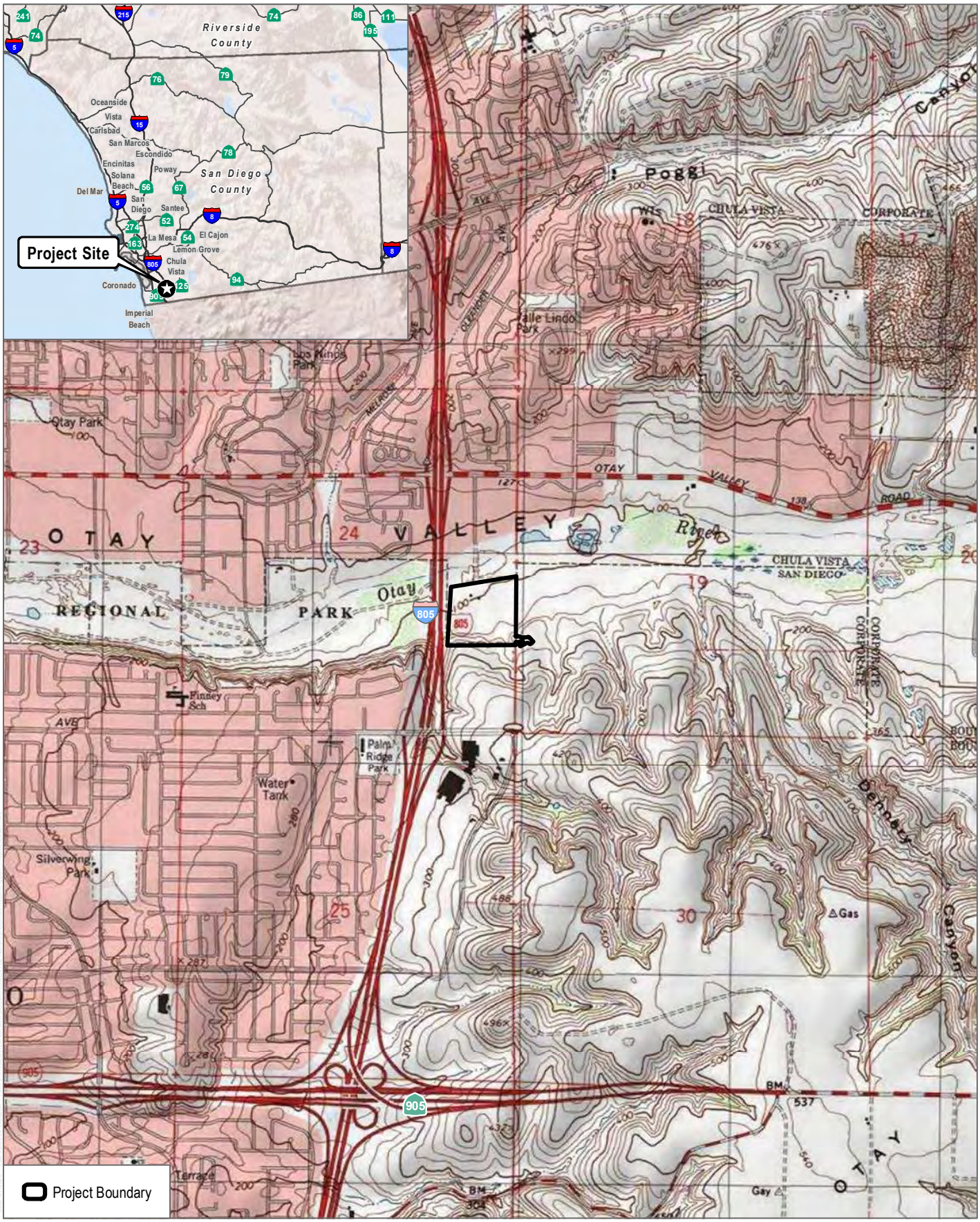
cc: *Erin Bergman, Dudek*

References

Oberbauer, T., M. Kelly, and J. Buegge. 2008. *Draft Vegetation Communities of San Diego County*. March 2008. Accessed June 14, 2019. http://www.sdcanyonlands.org/pdfs/veg_comm_sdcounty_2008_doc.pdf.

Sogge, M.K., D. Ahlers, and S.J. Sferra. 2010. *A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher.* U.S. Geological Survey Techniques and Methods 2A-10.

USFWS (U.S. Fish and Wildlife Service). 2001. *Least Bell's Vireo Survey Guidelines*. January 19, 2001.



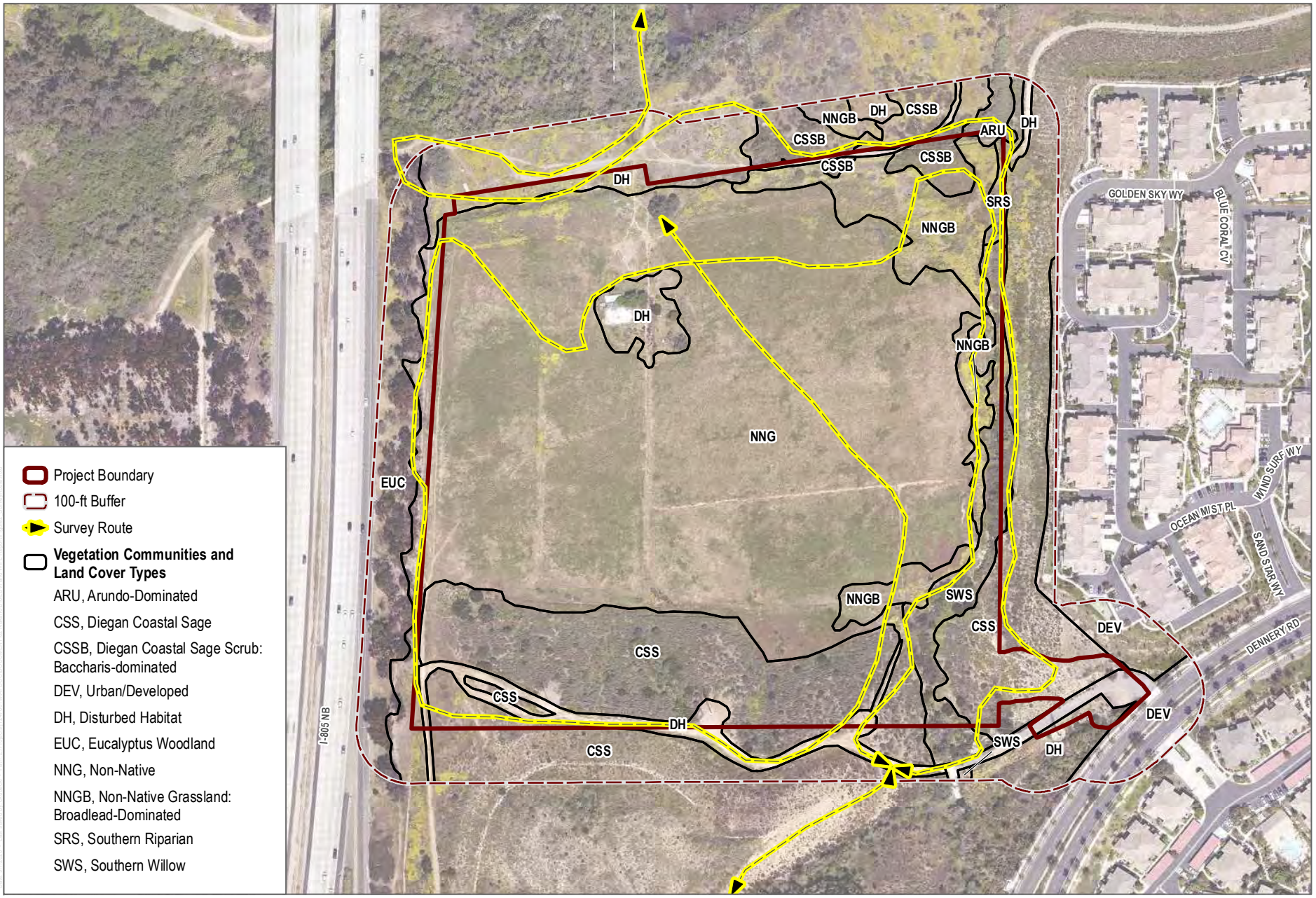
SOURCE: USGS 7.5-Minute Series Imperial Beach Quadrangle

FIGURE 1

Project Location

Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Nakano Project

DUDEK



SOURCE: SANGIS 2017

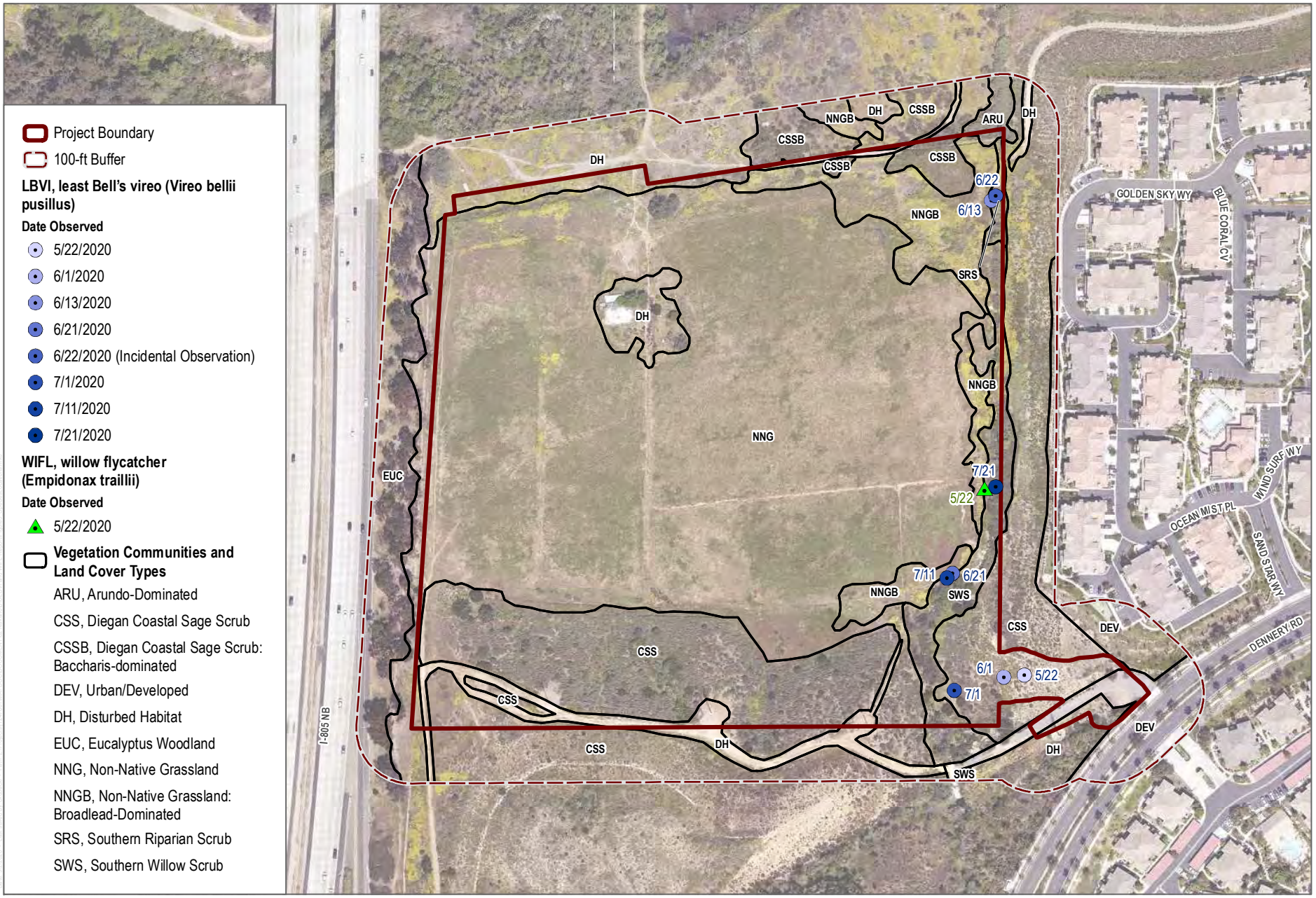
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0 115 230 Feet

FIGURE 2

Survey Route

Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Nakano Project



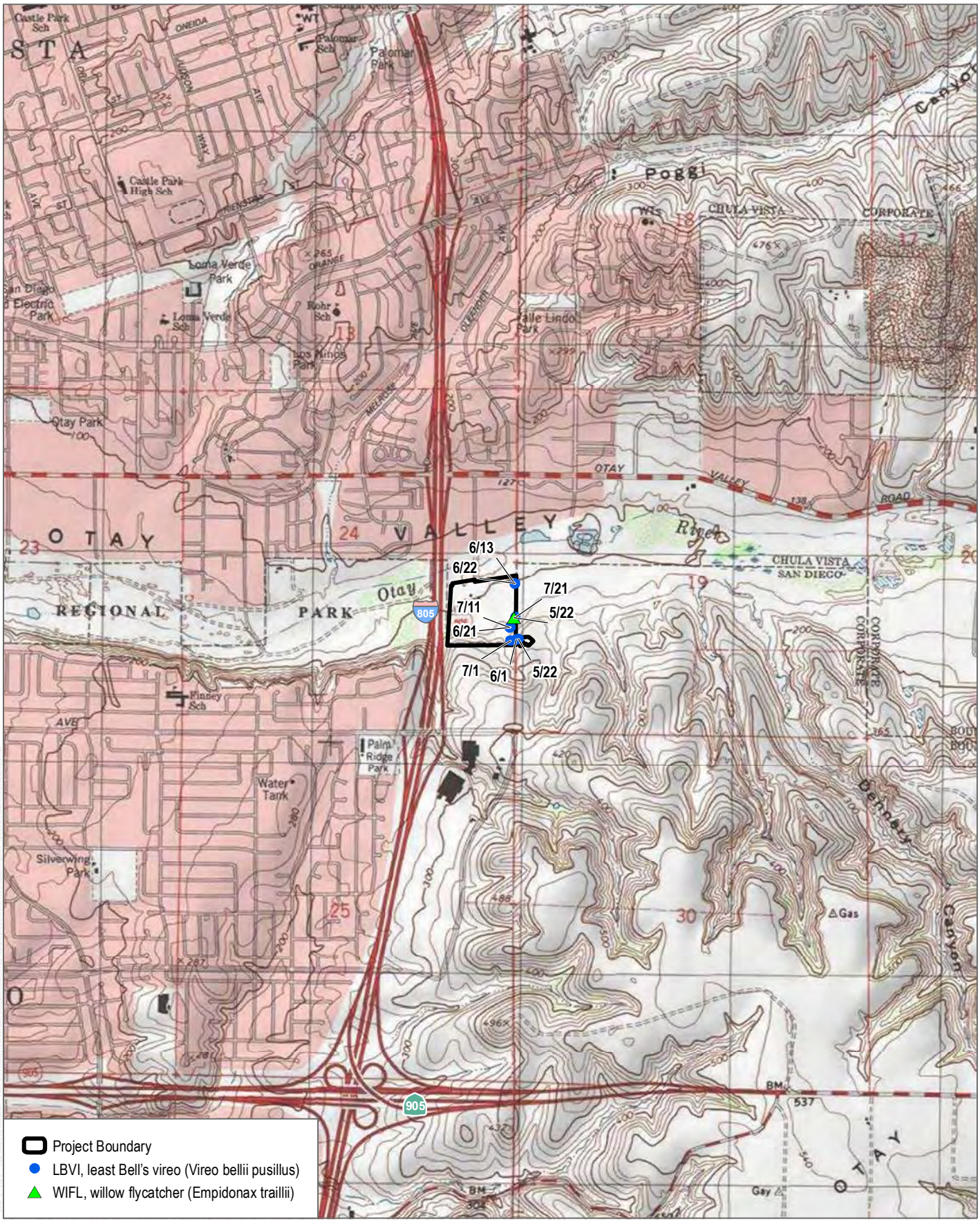
SOURCE: SANGIS 2017

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FIGURE 3

Species Locations

Focused Least Bell s Vireo and Southwestern Willow Flycatcher Survey Report for the Nakano Project



SOURCE: USGS 7.5-Minute Series Imperial Beach Quadrangle

FIGURE 4

Species Locations on USGS Quad Basemap

Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Nakano Project



Photo 1: Representative photo of riparian habitat within project site. Facing NE.



Photo 2: Representative photo of riparian habitat within project site. Facing SE.



Photo 3: Representative photo of riparian habitat patch exterior. Facing SE.



Photo 4: Representative photo of riparian habitat patch interior. Facing E.

FIGURE 5

Overview Photos of Habitat Surveyed

Focused Least Bell's Vireo and Southwestern Willow Flycatcher Survey Report for the Nakano Project

DUDEK

ATTACHMENT 4

Aquatic Resources Delineation Report for the Nakano Project Site

Aquatic Resource Delineation Report for the Nakano Project Site San Diego, California

Prepared for
Tri Pointe Homes
13520 Evening Creek Drive, Suite 300
San Diego, CA 92128

Prepared by
RECON Environmental, Inc.
3111 Camino del Rio North, Suite 600
San Diego, CA 92108
P 619.308.9333

RECON Number 3396.1
July 11, 2023



Gerry Scheid, Senior Biologist

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APPENDICES

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Acronyms and Abbreviations

APT	Antecedent Precipitation Tool
NRCS	Natural Resource Conservation Service
NWI	National Wetland Inventory
OHWM	Ordinary High Water Mark
project	Nakano Project
SANDAG	San Diego Association of Governments
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USGS	U.S. Geological Survey

1.0 Site Description and Landscape Setting

The 23.77-acre project site is located to the northwest of Dennery Road in the city of Chula Vista, San Diego County, California (Figure 1; all figures provided with this report are compiled as Appendix A). The project area is within Sections 19 and 24 of Township 18 South, Range 1 and 2 West, of the Imperial Beach, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle (Figure 2). The proposed project area is located east of Interstate 805 (I-805), northwest of Dennery Road, and south of the Otay River (Figure 3). Coordinates for the center of the site are 32.59 dd latitude and -117. 032 dd longitude.

2.0 Site Alterations, Current and Past Land Use

Currently land uses of the property consist of vacant land and unpaved roads and trails. The project site was used for agricultural in the past until approximately the year 2000. Surrounding land uses include a vacant site and the Otay Valley River Park to the north, I-805 directly to the west, multi-family residential to the east and southeast, and Kaiser medical offices to the south.

2.1 Soils

Information on the soil types that occur on the project site is summarized from the Soil Survey for San Diego County (U.S. Department of Agriculture [USDA] 1973), the San Diego Association of Governments' (SANDAG's) geographic information system data (SANDAG 1995), and the Hydric Soils of California list obtained from the Natural Resource Conservation Service (NRCS; 2022).

Three soil types have been recorded in the project area: Olivenhain cobbly loam, 9 percent to 30 percent slopes; Riverwash; and Salinas clay loam, 0 percent to 2 percent slopes (USDA 1973; Figure 4). Both Riverwash and Olivenhain soils occur on the hydric soil list (NRCS 2022). Riverwash soils may be hydric in fans and drainage ways and Olivenhain soils may be hydric in ponded depressions.

2.2 Hydrology

In general, the hydrology inputs to the site are from natural seasonal rainfall events and from storm water runoff from adjacent developed areas to the south. A single drainage channel enters the site from the south and is located along the eastern boundary of the site. The Otay River is located to the north of the project site. Flows from the on-site drainage channel appear to only reach the Otay River during larger rainfall events and via sheetflow as the channel bed has silted in towards the northern end.

2.3 Vegetation

Vegetation on-site is comprised of both upland and riparian communities. The majority of the site is vegetated with non-native grassland and disturbed habitat. Coastal sage scrub occurs on the hill side on the south end of the property. Southern willow scrub and mule fat scrub habitat occur along the drainage course. Emergent wetland is found adjacent to the channel and in a depressional area towards the north end of the drainage course where sheet flow and overbank flows occur.

3.0 Precipitation Data and Analysis

Climate data, including precipitation totals, for the nearest recording station to the project site was gathered from the NRCS National Water and Climate Center databases. The climate data obtained are discussed below.

3.1 Climate and Growing Season

The project is located along coastal slopes within southern California, in an area generally characterized by moderate temperature fluctuations throughout the year, with hot and dry summers and cooler and wetter winters. The majority of precipitation typically falls between December and March as somewhat frequent low- to moderate-intensity rainfall. The growing season typically lasts into early summer after winter and spring rainfall and ends in mid to late summer when little to no precipitation occurs and as temperatures increase. Rainfall amounts can vary substantially from year to year, with the potential for periods of extended drought.

3.2 Antecedent Precipitation Analysis

The Antecedent Precipitation Tool (APT) was used to analyze the 30-day rolling total and the 30-year normal range of precipitation data for the nearest recording weather stations to the project. The data presented in the APT results graphics (Appendix B) indicate that normal conditions occurred at the time of the March 24, 2022 survey despite being in an extreme drought. Three rain events occurred during March 2022 prior to the site visit.

3.3 Wetland Hydrology and Analysis

According to the results of the APT, three rain events occurred in the weeks prior to the day of the delineation. One event produced approximately 1.5 inches of rain, another event produced around 0.5 inch of rain, and the third event was approximately 0.01 inch of rain. Overall conditions were rated normal. Although the San Diego County area is in the midst of an extreme drought period, these March rain events contributed to the hydrology indicators observed during the delineation field work.

4.0 Investigation Methods

A routine waters/wetland delineation, following the guidelines set forth by U.S. Army Corps of Engineers (USACE; 1987 and 2008), was performed on March 24, 2022, to gather field data at locations where aquatic resources occur in the project site. Once on-site, the project area was examined to determine the presence and extent of any aquatic resources.

A routine waters/wetland delineation entails the evaluation of the presence of three wetland criteria and other non-wetland waters parameters. The three wetland criteria evaluated at each sample point included the presence of a dominance of hydrophytic vegetation, hydric soils, and wetland hydrology indicators. Non-wetland water parameters were evaluated as part of the assessment of the presence of an Ordinary High Water Mark (OHWM; see Section 4.3 below).

For the evaluation of hydrophytic vegetation, the vegetation communities comprising partially or entirely hydrophytic plant species were examined, and data for each vegetation stratum (i.e., tree, shrub, herb, and vine) were recorded on the datasheet provided in the 2008 Arid West Regional Supplement (USACE 2008). The percent absolute cover of each species present by vegetation layer was visually estimated and recorded. The wetland indicator status of each species recorded within a vegetation community was determined by using the National Wetland Plant List (USACE 2020). Finally, the dominance test was then calculated to determine if a vegetation community qualified as hydrophytic vegetation at each sample area. In situations where a site failed the dominance test but contained positive indicators of hydric soils and/or wetland hydrology, the prevalence index was used.

For the evaluation of hydric soils, soil pits were dug to a depth of at least 18 inches at each sample area to determine soil color, evidence of soil saturation, depth to groundwater, and indicators of a reducing soil environment (i.e., mottling, gleying, and hydrogen sulfide odor). A Munsell Soil-Color Book (2009) was used to determine soil colors, and the 2008 Arid West Regional Supplement (USACE 2008) and the Field Indicators of Hydric Soils in the United States guide (USDA 2017) was used to determine the presence of hydric soil indicators.

For the evaluation of wetland hydrology indicators, hydrologic information for the site was obtained by reviewing USGS topographic maps and by directly observing evidence of hydrology indicators in the field. All portions of any potentially occurring wetlands or non-wetland waters within the project site were inspected for signs of hydrology as defined in the 2008 Arid West Regional Supplement (USACE 2008).

4.1 Pre-Field Review

Prior to conducting the delineation, a recent aerial photograph, USGS topographic maps of the site, including the 7.5-minute Imperial Beach quadrangle (USGS 1997; see Figure 2), USDA soil maps of the site, and the U.S. Fish and Wildlife Service National Wetland Inventory (NWI) (U.S. Fish and Wildlife Service 2022) were examined to aid in the determination of potential locations for aquatic resources on-site.

4.2 On-site Aquatic Resource Investigation

Once in the field, the project site was examined to determine those areas where the presence of indicators of wetlands or non-wetland waters had the potential to occur. Field data was collected and data forms were completed for each selected sample area. Hand drawn maps made using site topography and recent aerial photography as aides were later digitized into ArcGIS. Mapped aquatic resources created using these data were analyzed in ArcGIS to provide acreages and display the limits of these resources on graphics. USACE wetland determination data forms are included as Appendix C.

4.3 On-Site Ordinary High Water Mark Investigation

The lateral extent of the OHWM was delineated along the on-site drainage using the observed indicators in accordance with A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (Lichvar and McColley 2008). The OHWM data forms are included in Appendix C. Indicators observed and used to determine the extent of the OHWM included the presence of bed and bank, distribution of sediment deposits, and a change in vegetation species and vegetation cover. In general, the drainage on-site exhibited indicators of bed and bank and a change in vegetation cover as the most frequent OHWM indicators.

5.0 Description of All Aquatic Resources

Wetland aquatic resources were delineated on the site (Figure 5). No non-wetland waters were observed outside of the wetland areas. The emergent wetland aquatic resource occurs in a depressional area where sheet flow terminates at the northern end of the drainage course (Photograph 1; all photographs provided with this report are compiled as Appendix D) and as an adjacent wetland where over bank flows occur next to the mule fat scrub and willows along the north portion of the drainage course (Photograph 2). Mule fat scrub vegetated wetland occurs along the drainage course (Photograph 3). Southern willow scrub vegetated wetland occurs along the southern portion of the drainage course (Photograph 4).

These wetland aquatic resource areas all support a predominance of hydrophytic vegetation. Hydric soil indicators observed included a reduced matrix with redox concentrations in the matrix. Wetland hydrology indicators observed varied by location and included observations of standing water, saturated soils, sediment deposits, and drainage patterns.

6.0 Deviation from National Wetland Inventory

A review of information from the NWI data showed no areas designated under the system occur on the site (Figure 6). NWI areas occur off-site to the north along the Otay River and its floodplain. Therefore, no deviation from the NWI is present for the project site.

7.0 Mapping Method

The maps of the delineated aquatic resources are based on the above analysis. The boundary of the aquatic resources delineated was obtained from a combination of field maps using recent aerial photography and topographic survey data. Geographic information system mapping software (ArcMap) was used to produce the graphical maps contained in this report.

8.0 Results and Conclusions

Wetland aquatic resources were delineated on the site on a drainage course located along the eastern boundary of the site. A list of the different aquatic resource vegetation types is provided in Table 1 (Appendix E).

9.0 Disclaimer Statement

This report describes the results of an aquatic resource delineation conducted within the Nakano project site. It was prepared in accordance with the Minimum Standards for Acceptance of Aquatic Resources Delineation Reports (USACE 2017). The aquatic resource delineation is used to identify and map the potential extent of federal waters of the U.S. with the purpose to provide necessary background information for analysis by USACE in making a jurisdictional determination. USACE will review the content of this report and ultimately make a determination of federal jurisdiction for any waters of the U.S. that may be present in the project area. References used in the preparation of this report are included below in Appendix F.

APPENDICES

APPENDIX A

Maps



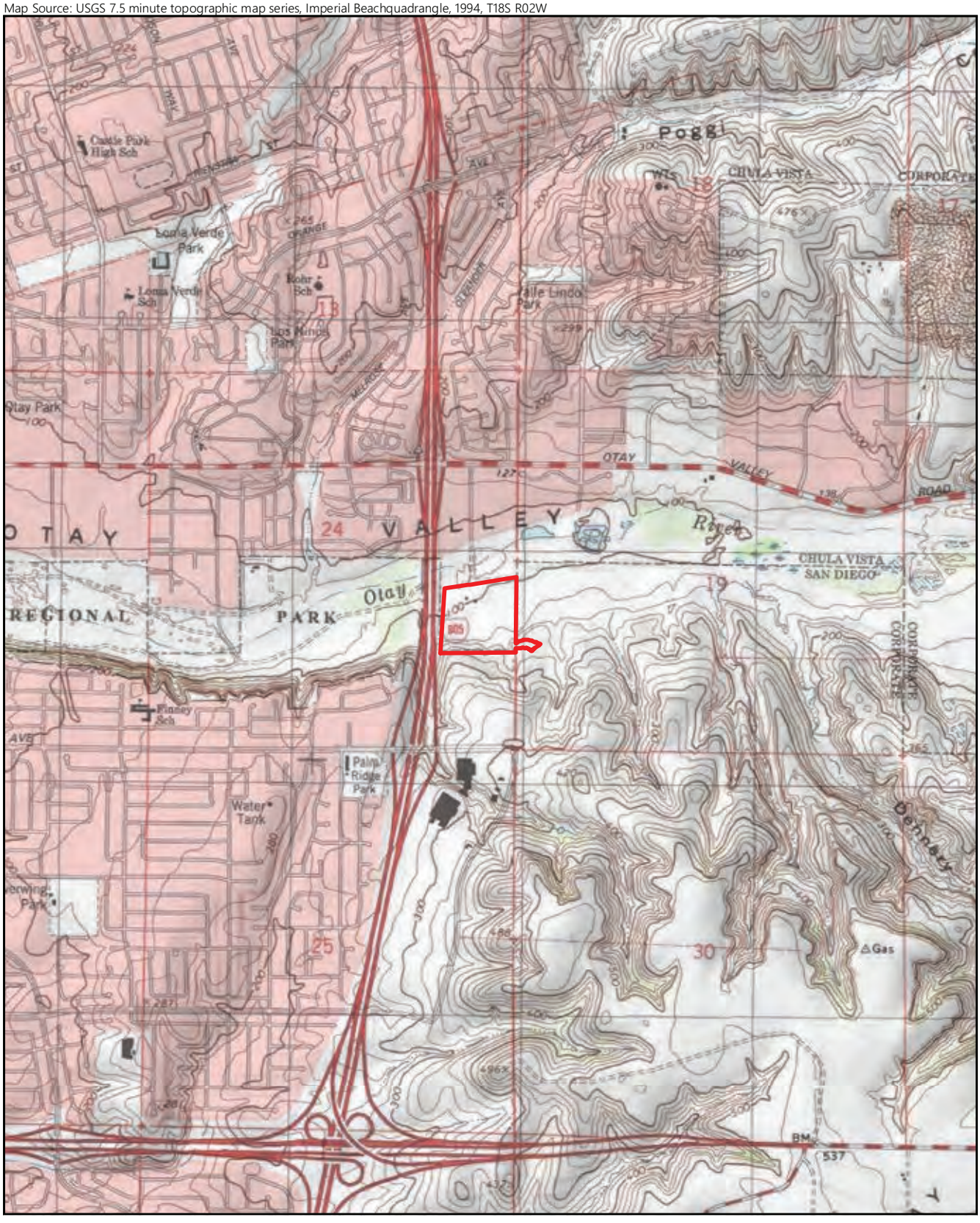
Project Location

RECON

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FIGURE 1
Regional Location

Map Source: USGS 7.5 minute topographic map series, Imperial Beachquadrangle, 1994, T18S R02W



Project Boundary

RECON

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FIGURE 2
Project Location on USGS Map

Image Source: Nearmap (flown: January 2022)



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FIGURE 3
Project Site Location on Aerial Photograph

Image Source: Nearmap (flown: January 2022)



Project Boundary

Soils

- Olivenhain Cobbly Loam, 2 to 9 Percent Slopes
- Olivenhain Cobbly Loam, 9 to 30 Percent Slopes
- Salinas Clay Loam, 0 to 2 Percent Slopes
- Riverwash
- Gravel Pits

0 Feet 250

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FIGURE 4
Soils

Image Source: Nearmap (flown: January 2022)



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FIGURE 5
Location of Aquatic Resource

Image Source: Nearmap (flown: January 2022)



0 Feet 250

Project Boundary

Freshwater Forested/Shrub Wetland

Freshwater Emergent Wetland

Freshwater Pond

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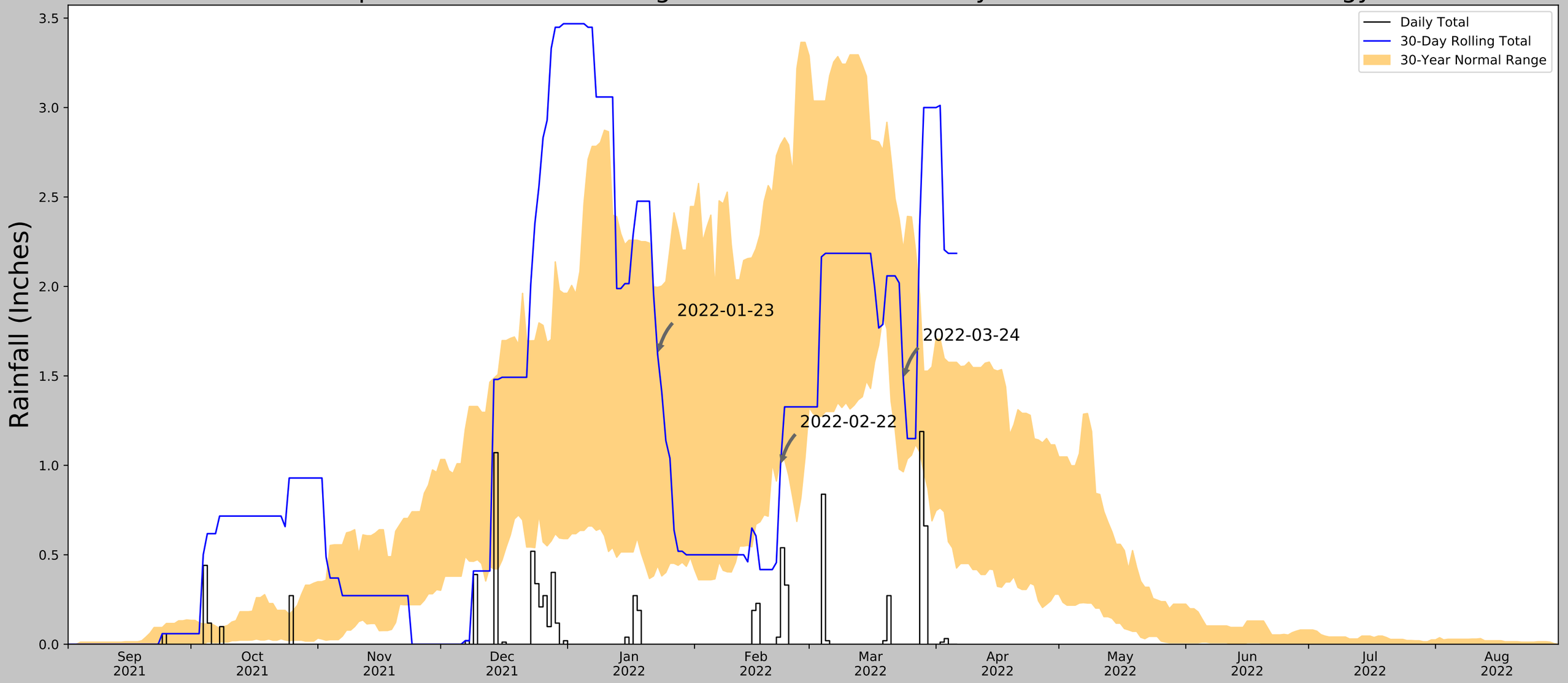
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FIGURE 6
National Wetland Inventory

APPENDIX B

Antecedent Precipitation Tool Results

Antecedent Precipitation vs Normal Range based on NOAA's Daily Global Historical Climatology Network



Coordinates	32.59, -117.033
Observation Date	2022-03-24
Elevation (ft)	107.22
Drought Index (PDSI)	Extreme drought
WebWIMP H_2O Balance	Wet Season

30 Days Ending	30^{th} %ile (in)	70^{th} %ile (in)	Observed (in)	Wetness Condition	Condition Value	Month Weight	Product
2022-03-24	0.96378	2.207087	1.480315	Normal	2	3	6
2022-02-22	1.03189	2.792126	0.996063	Dry	1	2	2
2022-01-23	0.43937	1.994882	1.61811	Normal	2	1	2
Result							Normal Conditions - 10

Figure and tables made by the
Antecedent Precipitation Tool
Version 1.0

Written by Jason Deters
U.S. Army Corps of Engineers

Weather Station Name	Coordinates	Elevation (ft)	Distance (mi)	Elevation Δ	Weighted Δ	Days (Normal)	Days (Antecedent)
SAN DIEGO BROWN FLD	32.5722, -116.9794	515.092	3.354	407.872	2.877	8570	90
CHULA VISTA 3.1SE	32.6044, -117.0508	200.131	1.436	92.911	0.78	2	0
CHULA VISTA	32.64, -117.0858	56.102	4.624	51.118	2.317	2712	0
IMPERIAL BEACH REAM FLD NAS	32.5667, -117.1167	23.95	5.132	83.27	2.737	44	0
NORTH ISLAND NAS	32.7, -117.2	25.919	12.335	81.301	6.554	25	0

APPENDIX C

Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Nakano City/County: Chula Vista Sampling Date: 03/24/22

Applicant/Owner: TriPointe State: CA Sampling Point: 1

Investigator(s): G.Scheid Section, Township, Range:

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-2%

Subregion (LRR): LRR-C Lat: 32.59 dd Long: -117.033 dd Datum: NAD83

Soil Map Unit Name: Salinas Clay Loam NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? No Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area within a Wetland?** **Yes** X **No**
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. *Baccharis pilularis*	5	Yes	UPL
2.			
3.			
4.			
5.			
	5 = Total Cover		
Herb Stratum (Plot size:)			
1. *Rumex crispus*	95	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	95 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species	95	x 3 =	285
FACU species		x 4 =	
UPL species	5	x 5 =	25
Column Totals:	100 (A)		310 (B)

Prevalence Index = B/A = 3.1

Hydrophytic Vegetation Indicators:

- Dominance Test is >50%
- X Prevalence Index is ≤3.0[1]
- Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)
- Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks: Area is low depressional area connected to sheet flow area of channel.

SOIL Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 3/3	100						
3-18	10YR 3/2	95	10YR 3/1	5	RM	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: Dark red0x concentrations observed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- X Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- X Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Area supports herbaceous riparian vegetation and is connected to drainage channel via sheet flow during high volume events.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Nakano City/County: Chula Vista Sampling Date: 03/24/22

Applicant/Owner: TriPointe State: CA Sampling Point: 2

Investigator(s): G.Scheid Section, Township, Range:

Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-2%

Subregion (LRR): LRR-C Lat: 32.59 dd Long: -117.032 dd Datum: NAD83

Soil Map Unit Name: Salinas Clay Loam NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? No Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No	**Is the Sampled Area within a Wetland?**	**Yes** X **No**
Hydric Soil Present?	Yes X No		
Wetland Hydrology Present?	Yes X No		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. *Baccharis salicifolia*	10	Yes	FAC
2.			
3.			
4.			
5.			
	10 = Total Cover		
Herb Stratum (Plot size:)			
1. *Rumex crispus*	80	Yes	FAC
2. *Glebionis coronaria*	10	No	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	90 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks: Area is low depressional area adjacent to channel and subject to over bank flows.

SOIL

Sampling Point: 2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	98						
6			Gley	2	RM	M		sandy loam

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: Gleyed redox concentrations located approximately 6 inches deep.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- ___ Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- X Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- X Water Marks (B1) (**Riverine**)
- X Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ___ No X Depth (inches): _____

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Area is adjacent to channel and subject to frequent over bank flows.

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Nakano City/County: Chula Vista Sampling Date: 03/24/22

Applicant/Owner: TriPointe State: CA Sampling Point: 3

Investigator(s): G.Scheid Section, Township, Range:

Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): concave Slope (%): 0-2%

Subregion (LRR): LRR-C Lat: 32.59 dd Long: -117.032 dd Datum: NAD83

Soil Map Unit Name: Salinas Clay Loam NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? No Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	**Is the Sampled Area within a Wetland?** **Yes** X **No**
Hydric Soil Present?	Yes X	No	
Wetland Hydrology Present?	Yes X	No	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *None*			
2.			
3.			
4.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size:)			
1. *Baccharis salicifolia*	40	Yes	FAC
2.			
3.			
4.			
5.			
	40 = Total Cover		
Herb Stratum (Plot size:)			
1. *Rumex crispus*	20	Yes	FAC
2. *Glebionis coronaria*	10	Yes	UPL
3. *Verbena lasiostachys*	10	Yes	FAC
4.			
5.			
6.			
7.			
8.			
	40 = Total Cover		
Woody Vine Stratum (Plot size:)			
1.			
2.			
	= Total Cover		

% Bare Ground in Herb Stratum 20 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks: Sample point in low flow channel of drainage..

SOIL Sampling Point: 3

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/2	98		2	RM	M		
2-18	10YR 3/3	95		5	RM	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: Dark redox concentrations observed in upper 6 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- X Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- X Sediment Deposits (B2) (**Riverine**)
- X Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 12

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Nakano City/County: Chula Vista Sampling Date: 03/24/22

Applicant/Owner: TriPointe State: CA Sampling Point: 4

Investigator(s): G.Scheid Section, Township, Range:

Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): concave Slope (%): 0-2%

Subregion (LRR): LRR-C Lat: 32.589 dd Long: -117.032 dd Datum: NAD83

Soil Map Unit Name: Salinas Clay Loam NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? No Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No	**Is the Sampled Area within a Wetland?**	**Yes** X **No**
Hydric Soil Present?	Yes X No		
Wetland Hydrology Present?	Yes X No		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix gooddingii*	30	Yes	FACW
2.			
3.			
4.			
	30	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. *Baccharis salicifolia*	40	Yes	FAC
2. *Iva haysiana*	10	Yes	FACW
3.			
4.			
5.			
	50	= Total Cover	
Herb Stratum (Plot size:)			
1. *Verbena lasiostachys*	20	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	20	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

X Dominance Test is >50%

Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No

Remarks: Sample point in low flow channel of drainage..

SOIL

Sampling Point: 4

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/2	90	5YR 6/8	10	RM	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: Dark redox concentrations observed in upper 6 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ___ Surface Water (A1)
- ___ High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- X Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- X Sediment Deposits (B2) (**Riverine**)
- X Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ___ No X Depth (inches): _____

Water Table Present? Yes ___ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 12

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Nakano City/County: Chula Vista Sampling Date: 03/24/22

Applicant/Owner: TriPointe State: CA Sampling Point: 5

Investigator(s): G.Scheid Section, Township, Range:

Landform (hillslope, terrace, etc.): channel Local relief (concave, convex, none): concave Slope (%): 0-2%

Subregion (LRR): LRR-C Lat: 32.588 dd Long: -117.032 dd Datum: NAD83

Soil Map Unit Name: Olivenhain cobbly loam NWI classification: Riverine

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)

Are Vegetation , Soil , or Hydrology significantly disturbed? No Are "Normal Circumstances" present? Yes X No

Are Vegetation , Soil , or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes x No	**Is the Sampled Area within a Wetland?**	**Yes** x **No**
Hydric Soil Present?	Yes x No		
Wetland Hydrology Present?	Yes x No		

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Salix laevigata*	10	Yes	FACW
2. *Washingtonia robusta*	2	Yes	FACW
3.			
4.			
	12	= Total Cover	
Sapling/Shrub Stratum (Plot size:)			
1. *Baccharis salicifolia*	40	Yes	FAC
2.			
3.			
4.			
5.			
	50	= Total Cover	
Herb Stratum (Plot size:)			
1. *Cortaderia selloana*	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	10	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 28 % Cover of Biotic Crust 0

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species	x 2 =
FAC species	x 3 =
FACU species	x 4 =
UPL species	x 5 =
Column Totals: (A)	(B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

x Dominance Test is >50%

Prevalence Index is ≤3.0[1]

Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes x No

Remarks: Sample point in low flow channel of drainage..

SOIL

Sampling Point: 5

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/2	90	5YR 6/8	10	RM	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, RC=Root Channel, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ___ Histosol (A1)
- ___ Histic Epipedon (A2)
- ___ Black Histic (A3)
- ___ Hydrogen Sulfide (A4)
- ___ Stratified Layers (A5) (**LRR C**)
- ___ 1 cm Muck (A9) (**LRR D**)
- ___ Depleted Below Dark Surface (A11)
- ___ Thick Dark Surface (A12)
- ___ Sandy Mucky Mineral (S1)
- ___ Sandy Gleyed Matrix (S4)
- ___ Sandy Redox (S5)
- ___ Stripped Matrix (S6)
- ___ Loamy Mucky Mineral (F1)
- ___ Loamy Gleyed Matrix (F2)
- X Depleted Matrix (F3)
- ___ Redox Dark Surface (F6)
- ___ Depleted Dark Surface (F7)
- ___ Redox Depressions (F8)
- ___ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

- ___ 1 cm Muck (A9) (**LRR C**)
- ___ 2 cm Muck (A10) (**LRR B**)
- ___ Reduced Vertic (F18)
- ___ Red Parent Material (TF2)
- ___ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No ___

Remarks: Dark redox concentrations observed in upper 6 inches.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- X Surface Water (A1)
- X High Water Table (A2)
- X Saturation (A3)
- ___ Water Marks (B1) (**Nonriverine**)
- ___ Sediment Deposits (B2) (**Nonriverine**)
- ___ Drift Deposits (B3) (**Nonriverine**)
- ___ Surface Soil Cracks (B6)
- ___ Inundation Visible on Aerial Imagery (B7)
- ___ Water-Stained Leaves (B9)
- ___ Salt Crust (B11)
- ___ Biotic Crust (B12)
- ___ Aquatic Invertebrates (B13)
- ___ Hydrogen Sulfide Odor (C1)
- ___ Oxidized Rhizospheres along Living Roots (C3)
- ___ Presence of Reduced Iron (C4)
- ___ Recent Iron Reduction in Tilled Soils (C6)
- ___ Thin Muck Surface (C7)
- ___ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ___ Water Marks (B1) (**Riverine**)
- X Sediment Deposits (B2) (**Riverine**)
- ___ Drift Deposits (B3) (**Riverine**)
- ___ Drainage Patterns (B10)
- ___ Dry-Season Water Table (C2)
- ___ Thin Muck Surface (C7)
- ___ Crayfish Burrows (C8)
- ___ Saturation Visible on Aerial Imagery (C9)
- ___ Shallow Aquitard (D3)
- ___ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No ___ Depth (inches): 4

Water Table Present? Yes X No ___ Depth (inches): 0

Saturation Present? (includes capillary fringe) Yes X No ___ Depth (inches): 0

Wetland Hydrology Present? Yes X No ___

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Standing water and high water table observed.

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW-CO-R.

OMB Control No. 0710-XXXX

Approval Expires:

Project ID #: 3396.1	Site Name: Nakano OHWM #1	Date and Time: 06/30/23 11:30am
Location (lat/long): 32.59 dd -117.03 dd	Investigator(s): G. Scheid	

Step 1 Site overview from remote and online resources

Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [ ] climatic data
- [ ] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [x] Other: MWI Mapping

Describe land use and flow conditions from online resources.

Were there any recent extreme events (floods or drought)?

Site is an undeveloped parcel with residential homes to the east, commercial development to the south, Otay River valley to the north, and a freeway to the west. Natural hydrology altered upstream due to development and is largely storm water runoff.

Step 2 Site conditions during field assessment

First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

The drainage channel is developed upstream and flows enter it through a culvert/storm drain system. Flow regime is ephemeral. An access road crosses the drainage at the north end where it enters the site and an at-grade Arizona crossing is part of this road. Flows at northern end of the channel on the site sheet flow off-site to a secondary channel connection.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.

OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.

OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [x] **Break in slope:** x
  - [x] *on the bank:* x
  - [ ] *undercut bank:*
  - [ ] *valley bottom:*
  - [ ] Other: _____
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* _____
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [ ] *unvegetated:*
  - [ ] *vegetation transition (go to veg. indicators)*
  - [ ] *sediment transition (go to sed. indicators)*
  - [ ] *upper limit of deposition on bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)*
  - [ ] *bedforms (e.g., poofs, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)*
- [ ] **Secondary channels:**

Sediment indicators

- [x] **Soil development:** b
- [x] **Changes in character of soil:** x
- [ ] **Mudcracks:**
- [x] **Changes in particle-sized distribution:** x
  - [x] *transition from* Silt to loam
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*

Vegetation Indicators

- [x] **Change in vegetation type and/or density:** x

  Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.***

  - [x] *vegetation absent to:* graminoids
  - [ ] *moss to:*
  - [ ] *forbs to:*
  - [ ] *graminoids to:*
  - [ ] *woody shrubs to:*
  - [ ] *deciduous trees to:*
  - [ ] *coniferous trees to:*
- [ ] **Vegetation matted down and/or bent:**
- [ ] **Exposed roots below intact soil layer:**

Ancillary indicators

- [ ] **Wracking/presence of organic litter:**
- [ ] **Presence of large wood:**
- [x] **Leaf litter disturbed or washed away:** x
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators?

Describe:

Step 4 Is additional information needed to support this determination?

- [ ] Yes
- [x] No

If yes, describe and attach information to datasheet:

Project ID #: 3396.1

Step 5 Describe rationale for location of OHWM

The channel banks at this location are shallow with the top of bank about one foot above the bed. Vegetation in channel largely absent and transitions to grasses and herbaceous upland species above the top of bank in adjacent uplands. Soils transitions from silty-sand to loam.

Additional observations or notes

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☒ Yes ☐ No If no, explain why not: _____

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

Photo Number	Photograph description
1	View of channel bed looking upstream.
2	View of channel bed looking downstream.



PHOTOGRAPH 1
View of Channel Bed Looking Upstream



PHOTOGRAPH 2
View of Channel Bed Looking Downstream

U.S. Army Corps of Engineers (USACE)

RAPID ORDINARY HIGH WATER MARK (OHWM) FIELD IDENTIFICATION DATA SHEET

The proponent agency is Headquarters USACE CECW-CO-R.

OMB Control No. 0710-XXXX

Approval Expires:

Project ID #: 3396.1	Site Name: Nakano OHWM #2	Date and Time: 06/30/23 10:30am
Location (lat/long): 32.59 dd -117.03 dd	Investigator(s): G. Scheid	

Step 1 Site overview from remote and online resources

Check boxes for online resources used to evaluate site:

- [ ] gage data
- [ ] LiDAR
- [ ] geologic maps
- [ ] climatic data
- [ ] satellite imagery
- [ ] land use maps
- [x] aerial photos
- [x] topographic maps
- [x] Other: NWI Mapping

Describe land use and flow conditions from online resources.

Were there any recent extreme events (floods or drought)?

Site is an undeveloped parcel with residential homes to the east, commercial development to the south, Otay River valley to the north, and a freeway to the west. Natural hydrology altered upstream due to development and is largely storm water runoff.

Step 2 Site conditions during field assessment

First look for changes in channel shape, depositional and erosional features, and changes in vegetation and sediment type, size, density, and distribution. Make note of natural or man-made disturbances that would affect flow and channel form, such as bridges, riprap, landslides, rockfalls etc.

The drainage channel is developed upstream and flows enter it through a culvert/storm drain system. Flow regime is ephemeral. An access road crosses the drainage at the north end where it enters the site and an at-grade Arizona crossing is part of this road.

Step 3 Check the boxes next to the indicators used to identify the location of the OHWM.

OHWM is at a transition point, therefore some indicators that are used to determine location may be just below and above the OHWM. From the drop-down menu next to each indicator, select the appropriate location of the indicator by selecting either just below `b', at `x', or just above `a' the OHWM.

OHWM. Go to page 2 to describe overall rationale for location of OHWM, write any additional observations, and to attach a photo log.

Geomorphic indicators

- [x] **Break in slope:** a
  - [x] *on the bank:* x
  - [ ] *undercut bank:*
  - [ ] *valley bottom:*
  - [ ] Other: _____
- [ ] **Shelving:**
  - [ ] *shelf at top of bank:*
  - [ ] *natural levee:*
  - [ ] *man-made berms or levees:*
  - [ ] *other berms:* _____
- [ ] **Channel bar:**
  - [ ] *shelving (berms) on bar:*
  - [ ] *unvegetated:*
  - [ ] *vegetation transition (go to veg. indicators)*
  - [ ] *sediment transition (go to sed. indicators)*
  - [ ] *upper limit of deposition on bar:*
- [ ] **Instream bedforms and other bedload transport evidence:**
  - [ ] *deposition bedload indicators (e.g., imbricated clasts, gravel sheets, etc.)*
  - [ ] *bedforms (e.g., poofs, riffles, steps, etc.):*
  - [ ] *erosional bedload indicators (e.g., obstacle marks, scour, smoothing, etc.)*
- [ ] **Secondary channels:**

Sediment indicators

- [x] **Soil development:** x
- [x] **Changes in character of soil:** x
- [ ] **Mudcracks:**
- [x] **Changes in particle-sized distribution:** x
  - [x] *transition from* sand to loam
  - [ ] *upper limit of sand-sized particles*
  - [ ] *silt deposits:*

Vegetation Indicators

- [x] **Change in vegetation type and/or density:** a

  Check the appropriate boxes and select the general vegetation change *(e.g., graminoids to woody shrubs).* ***Describe the vegetation transition looking from the middle of the channel, up the banks, and into the floodplain.***

  - [x] *vegetation absent to:* woody shrubs
  - [ ] *moss to:*
  - [ ] *forbs to:*
  - [ ] *graminoids to:*
  - [ ] *woody shrubs to:*
  - [ ] *deciduous trees to:*
  - [ ] *coniferous trees to:*
- [ ] **Vegetation matted down and/or bent:**
- [x] **Exposed roots below intact soil layer:** x

Ancillary indicators

- [x] **Wracking/presence of organic litter:** x
- [ ] **Presence of large wood:**
- [x] **Leaf litter disturbed or washed away:** x
- [ ] **Water staining:**
- [ ] **Weathered clasts or bedrock:**

Other observed indicators?

Describe:

Step 4 Is additional information needed to support this determination?

- [ ] Yes
- [x] No

If yes, describe and attach information to datasheet:

Project ID #: 3396.1

Step 5 Describe rationale for location of OHWM

The channel is incised at the sample location with steep banks that are 5 - 6 feet high. Channel bed is mostly unvegetated but has a few scattered perennial grasses clump (pampas grass) or woody shrubs (mule fat) present. Soil goes from sandy silts in the channel bed to a sandy loam on the adjacent uplands. Vegetation is comprised of upland herbs and shrubs beyond the top of bank. Wrack lines of small woody debris are present in the channel.

Additional observations or notes

Attach a photo log of the site. Use the table below, or attach separately.

Photo log attached? ☒ Yes ☐ No If no, explain why not: _____

List photographs and include descriptions in the table below.

Number photographs in the order that they are taken. Attach photographs and include annotations of features.

Photo Number	Photograph description
1	View of channel bed looking upstream.
2	View of channel bed looking downstream.



PHOTOGRAPH 1
View of Channel Bed Looking Upstream



PHOTOGRAPH 2
View of Channel Bed Looking Downstream

APPENDIX D

Ground Level Color Photographs



PHOTOGRAPH 1
View of Emergent Wetland Dominated by Curly Dock Looking North
(Photograph Date: March 24, 2022)



PHOTOGRAPH 2
View of Emergent Wetland Adjacent to Drainage Channel Looking South
(Photograph Date: March 24, 2022)



PHOTOGRAPH 3
View of Mule Fat Scrub Along Drainage Channel Looking South
(Photograph Date: March 24, 2022)



PHOTOGRAPH 4
View of Southern Willow Scrub From Hilltop Looking East
(Photograph Date: March 24, 2022)

APPENDIX E

Additional Tables Information

Table 1 List of Aquatic Resources									
Waters ID	Cowardin Code	HGM Code	Area (acre)	Linear Feet	Waters Type	Latitude (dd NAD83)	Longitude (dd NAD83)	Local Waterway	Dominant Vegetation
W1	Riverine	Riverine	0.08	74	NRPW	32.59	-117.032	Un-named	*Rumex crispus*
W2	Riverine	Riverine	0.10	128	NRPW	32.59	-117.032	Un-named	*Rumex crispus*
W3	Riverine	Riverine	0.11	259	NRPW	32.59	-117.032	Un-named	*Baccharis salicifolia*
W4	Riverine	Riverine	0.05	125	NRPW	32.59	-117.032	Un-named	*Glebonis coronaria*, *Verbena lasiostachys*, *Rumex crispus*
W5	Riverine	Riverine	0.41	657	NRPW	32.59	-117.032	Un-named	*Salix laevigata*, *Salix gooddingii*, *Baccharis salicifolia*, *Verbena lasiostachys*
W6 (Off-site)	Riverine	Riverine	0.06	60	NRPW	32.589	-117.032	Un-named	*Salix gooddingii*, *Baccharis salicifolia*, *Tamarix rammosissima*
TOTAL	--	--	0.81	1,303	--	--	--	--	--
NRPW = Non-relatively Permanent Waters that flow directly or indirectly into Traditional Navigable Waters									

APPENDIX F

References Cited

Lichvar, R. W., and S. M. McColley
2008 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. ERDC/CRREL TR-08-12. August.

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2009 Munsell Soil Color Charts: with Genuine Munsell Color Chips. Grand Rapids, MI.

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San Diego Association of Governments (SANDAG)
1995 Soil Series GIS Data. Data digitized from USDA–1973. Soil Survey, San Diego area. Obtained from http://www.sandag.org/resources/maps_and_gis/gis_downloads/senlu.asp.

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1987 Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1, Department of the Army. January.

2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region. Prepared by U.S. Army Engineer Research and Development Center. December.

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2020 National Wetland Plant List, version 3.5. Accessed April 6, 2022. Available at https://wetland-plants.sec.usace.army.mil/nwpl_static/v34/home/home.html.

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U.S. Fish and Wildlife Service (USFWS)
2022 National Wetlands Inventory. Available at https://www.fws.gov/wetlands/.

U.S. Geological Survey (USGS)
1997 Imperial Beach, T18S R01W and R02W, Sections 19 and 24 USGS 7.5-minute Topographic Map.

ATTACHMENT 5

Representative Photographs of the Project Area



Photo 1- Non-native grassland community looking east away from from Interstate 5.



Photo 2 -Coastal sage scrub habitat looking south



Photo 3 -Non-native grassland and coastal sage scrub looking west toward Interstate 5



Photo 4 -Section of Southern willow scrub



Photo 5 -Coastal Sage Scrub habitat



Photo 6-Non-native grassland facing north



Photo 7- Giant reed vegetation



Photo 8- Coastal sage scrub, southern willow scrub and non-native grassland facing northeast

ATTACHMENT 6

RiverEdge Terrace As-Builts

GRADING PLANS FOR RIVEREDGE TERRACE
DENNERY RANCH PA 2/3

GENERAL NOTES

1. APPROVAL OF THESE PLANS BY THE CITY ENGINEER DOES NOT AUTHORIZE ANY WORK TO BE PERFORMED UNTIL A PERMIT HAS BEEN ISSUED.

2. THE APPROVAL OF THIS PLAN OR ISSUANCE OF A PERMIT BY THE CITY OF SAN DIEGO DOES NOT AUTHORIZE THE SUBDIVIDER AND OWNER TO VIOLATE ANY FEDERAL, STATE OR CITY LAWS, ORDINANCES, REGULATIONS, OR POLICIES, INCLUDING, BUT NOT LIMITED TO, THE FEDERAL ENDANGERED SPECIES ACT OF 1973 AND AMENDMENTS THERETO (16 USC SECTION 1531 ET.SEQ.)

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SURVEY MONUMENTS AND/OR VERTICAL CONTROL BENCHMARKS WHICH ARE DISTURBED OR DESTROYED BY CONSTRUCTION. A LAND SURVEYOR MUST FIELD LOCATE, REFERENCE, AND/OR PRESERVE ALL HISTORICAL OR CONTROLLING MONUMENTS PRIOR TO ANY EARTHWORK. IF DESTROYED, A LAND SURVEYOR SHALL REPLACE SUCH MONUMENTS WITH APPROPRIATE MONUMENTS. A CORNER RECORD OR RECORD OF SURVEY, AS APPROPRIATE, SHALL BE FILED AS REQUIRED BY THE PROFESSIONAL LAND SURVEYORS ACT. IF ANY VERTICAL CONTROL IS TO BE DISTURBED OR DESTROYED, THE CITY OF SAN DIEGO FIELD SURVEY SECTION MUST BE NOTIFIED, IN WRITING, AT LEAST 3 DAYS PRIOR TO THE CONSTRUCTION. THE CONTRACTOR WILL BE RESPONSIBLE FOR THE COST OF REPLACING ANY HORIZONTAL AND VERTICAL CONTROL BENCHMARKS DESTROYED BY THE CONSTRUCTION.

4. IMPORTANT NOTICE: SECTION 4216 OF THE GOVERNMENT CODE REQUIRES A DIG ALERT IDENTIFICATION NUMBER BE ISSUED BEFORE A "PERMIT TO EXCAVATE" WILL BE VALID. FOR YOUR DIG ALERT I.D. NUMBER, CALL UNDERGROUND SERVICE ALERT, TOLL FREE 1-800-422-4133, TWO DAYS BEFORE YOU DIG.

5. CONTRACTOR SHALL IMPLEMENT AN EROSION AND SEDIMENT CONTROL PROGRAM DURING THE PROJECT GRADING AND/OR CONSTRUCTION ACTIVITIES. THE PROGRAM SHALL MEET ALL APPLICABLE REQUIREMENTS OF THE STATE WATER RESOURCE CONTROL BOARD AND THE CITY OF SAN DIEGO MUNICIPAL CODE AND STORM WATER STANDARDS MANUAL.

6. "PUBLIC IMPROVEMENT SUBJECT TO DESUETUDE OR DAMAGE." IF REPAIR OR REPLACEMENT OF SUCH PUBLIC IMPROVEMENTS IS REQUIRED, THE OWNER SHALL OBTAIN THE REQUIRED PERMITS FOR WORK IN THE PUBLIC RIGHT-OF-WAY, SATISFACTORY TO THE PERMIT- ISSUING AUTHORITY.

7. ALL EXISTING AND/OR PROPOSED PUBLIC UTILITY SYSTEM AND SERVICE FACILITIES SHALL BE INSTALLED UNDERGROUND IN ACCORDANCE WITH SECTION 144.0240 OF THE MUNICIPAL CODE.

8. PRIOR TO ANY DISTURBANCE TO THE SITE, EXCLUDING UTILITY MARK-OUTS AND SURVEYING, THE CONTRACTOR SHALL MAKE ARRANGEMENTS FOR A PRE-CONSTRUCTION MEETING WITH THE CITY OF SAN DIEGO FIELD ENGINEERING DIVISION (858) 627-3200.

9. DEVIATIONS FROM THESE SIGNED PLANS WILL NOT BE ALLOWED UNLESS A CONSTRUCTION CHANGE IS APPROVED BY THE CITY ENGINEER OR THE CHANGE IS REQUIRED BY THE CITY INSPECTOR.

10. AS-BUILT DRAWINGS MUST BE SUBMITTED TO THE RESIDENT ENGINEER PRIOR TO ACCEPTANCE OF THIS PROJECT BY THE CITY OF SAN DIEGO.

11. AN AS-GRADED GEOTECHNICAL REPORT SHALL BE SUBMITTED TO BOOTH 32 ON THE THIRD FLOOR OF DEVELOPMENT SERVICES WITHIN 15 CALENDAR DAYS OF COMPLETION OF GRADING. AN ADDITIONAL SET SHALL BE PROVIDED TO THE FIELD INSPECTION DIVISION.

12. THE AREA WHICH IS DEFINED AS A NON GRADING AREA AND WHICH IS NOT TO BE DISTURBED SHALL BE STAKED PRIOR TO START OF THE WORK. THE PERMIT APPLICANT AND ALL OF THEIR REPRESENTATIVES OR CONTRACTORS SHALL COMPLY WITH THE REQUIREMENTS FOR PROTECTION OF THIS AREA AS REQUIRED BY ANY APPLICABLE AGENCY. ISSUANCE OF THE CITY'S GRADING PERMIT SHALL NOT RELIEVE THE APPLICANT OR ANY OF THEIR REPRESENTATIVES OR CONTRACTORS FROM COMPLYING WITH ANY STATE OR FEDERAL REQUIREMENTS BY AGENCIES INCLUDING BUT NOT LIMITED TO CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD, CALIFORNIA DEPARTMENT OF FISH AND GAME. COMPLIANCE MAY INCLUDE OBTAINING PERMITS, OTHER AUTHORIZATIONS, OR COMPLIANCE WITH MANDATES BY ANY APPLICABLE STATE OR FEDERAL AGENCY.

13. CONTRACTOR SHALL REMOVE AND REPLACE ALL UTILITY BOXES SERVING AS HANDHOLES THAT ARE NOT IN "AS-NEW" CONDITION IN PROPOSED SIDEWALK. DAMAGED BOXES, OR THOSE THAT ARE NOT IN COMPLIANCE WITH CURRENT CODE SHALL BE REMOVED AND REPLACED WITH NEW BOXES, INCLUDING WATER, SEWER, TRAFFIC SIGNALS, STREET LIGHTS, DRY UTILITIES--SDG&E, COX, ETC. ALL NEW METAL LIDS SHALL BE SLIP RESISTANT (FRICTION FACTOR >/= 0.50) AND INSTALLED FLUSH WITH PROPOSED SIDEWALK GRADE. IF A SLIP RESISTANT METAL LID IS NOT COMMERCIALLY AVAILABLE FOR THAT USE, NEW BOXES AND LIDS SHALL BE INSTALLED.

SPECIAL NOTES

THE FOLLOWING NOTES ARE PROVIDED TO GIVE DIRECTION TO THE CONTRACTOR BY THE ENGINEER OF WORK. THE CITY ENGINEER'S SIGNATURE ON THESE PLANS DOES NOT CONSTITUTE APPROVAL OF ANY OF THESE NOTES, AND THE CITY WILL NOT BE RESPONSIBLE FOR THEIR ENFORCEMENT.

1. NEITHER THE OWNER, NOR THE ENGINEER OF WORK, WILL ENFORCE SAFETY MEASURES OR REGULATIONS. THE CONTRACTOR SHALL DESIGN, CONSTRUCT, AND MAINTAIN ALL SAFETY DEVICES, INCLUDING SHORING, AND SHALL BE SOLELY RESPONSIBLE FOR CONFORMING TO ALL LOCAL, STATE, AND FEDERAL SAFETY AND HEALTH STANDARDS, LAWS, AND REGULATIONS.

2. CONTRACTOR AGREES THAT HE SHALL ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THIS PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY, AND THAT THIS REQUIREMENT SHALL DEFEND, INDEMNIFY, AND HOLD THE OWNER AND ENGINEER HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF THE OWNER OR THE ENGINEER.

3. THE CONTRACTOR SHALL BE RESPONSIBLE TO ENSURE THAT ALL GRADING IS DONE IN ACCORDANCE WITH THESE PLANS. IF THERE ARE ANY QUESTIONS REGARDING THESE PLANS OR FIELD STAKES, THE CONTRACTOR SHALL REQUEST AN INTERPRETATION BEFORE DOING ANY WORK. CALLING THE ENGINEER OF WORK (619) 235-6471, THE CONTRACTOR SHALL ALSO TAKE THE NECESSARY STEPS TO PROTECT THE PROJECT AND ADJACENT PROPERTY FROM EROSION AND SILTATION THAT RESULT FROM HIS OPERATIONS BY APPROPRIATE MEANS (GRAVEL BAGS, HAY BALES, TEMPORARY DESILTING BASINS, DIKES, SHORING, ETC.) UNTIL SUCH TIME THAT THE PROJECT IS COMPLETED AND ACCEPTED FOR MAINTENANCE BY WHATEVER OWNER, AGENCY, OR ASSOCIATIONS IS TO BE ULTIMATELY RESPONSIBLE FOR MAINTENANCE.

4. DURING CONSTRUCTION: THE CONTRACTOR SHALL PROPERLY GRADE ALL EXCAVATED SURFACES TO PROVIDE POSITIVE DRAINAGE AND PREVENT PONDING OF WATER. HE SHALL CONTROL SURFACE WATER TO AVOID DAMAGE TO ADJOINING PROPERTIES OR TO FINISHED WORK ON THE SITE. THE CONTRACTOR SHALL TAKE REMEDIAL MEASURES TO PREVENT EROSION OF FRESHLY GRADED AREAS AND UNTIL SUCH TIME AS PERMANENT DRAINAGE AND EROSION CONTROL MEASURES HAVE BEEN INSTALLED.

5. CONTRACTOR SHALL TAKE THE NECESSARY PRECAUTIONS REQUIRED TO PROTECT ADJACENT PROPERTIES DURING THE GRADING OPERATIONS.

6. CUT AND FILL SLOPES SHALL BE TRIMMED TO THE FINISH GRADE TO PRODUCE A SMOOTH SURFACE AND UNIFORM CROSS SECTION. THE SLOPE OF THE EXCAVATIONS OR EMBANKMENTS SHALL BE SHAPED AND TRIMMED AS SHOWN ON THE PLANS AND LEFT IN A NEAT AND ORDERLY CONDITION. ALL STONES, ROOTS, OR OTHER WASTE MATTER EXPOSED ON EXCAVATION OR EMBANKMENT SLOPES SHALL BE REMOVED AND DISPOSED OF OFFSITE IN A LEGAL MANNER BY THE CONTRACTOR.

7. THE EXISTENCE AND LOCATION OF UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THESE PLANS WERE OBTAINED FROM A SEARCH OF THE AVAILABLE RECORDS. TO THE BEST OF OUR KNOWLEDGE, THERE ARE NO OTHER EXISTING UTILITIES EXCEPT SHOWN ON THESE PLANS. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN HEREON AND ANY OTHERS NOT OF RECORD OR NOT SHOWN ON THESE PLANS. ALL DAMAGES THERETO CAUSED BY THE CONTRACTOR SHALL BE REPAIRED TO THE APPROPRIATE SPECIFICATIONS AND AT THE EXPENSE OF THE CONTRACTOR.

8. A QUALIFIED BIOLOGIST SHALL BE CONTRACTED TO MONITOR THE CLEARING OF VEGETATION IN ASSOCIATION WITH BRUSH MANAGEMENT DURING ALL MAINTENANCE PERIODS. THIS WILL ENSURE MINIMAL REMOVAL AND CUTTING OF NATIVE VEGETATION IN ACCORDANCE WITH THE GUIDELINES FOR THE LANDSCAPE TECHNICAL MANUAL AND THE BRUSH MANAGEMENT PLAN, THUS MINIMIZING IMPACTS TO WILDLIFE HABITAT.

9. THE ENGINEER PREPARING THESE PLANS WILL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS. ALL CHANGES TO THE PLANS MUST BE IN WRITING AND MUST BE APPROVED BY THE PREPARER OF THESE PLANS.

10. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENTS SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD CITY OF SAN DIEGO HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF CITY OF SAN DIEGO PROFESSIONAL



VICINITY MAP
NO SCALE

SOURCE OF TOPOGRAPHY

PROJECT DESIGN CONSULTANTS
701 B STREET, SUITE 800
SAN DIEGO, CALIFORNIA 92101
(619) 235-6471
PREPARED JUNE 13, 2006

EXISTING LEGAL DESCRIPTION

PARCEL 1 OF PARCEL MAP NO. 15134, IN THE CITY OF SAN DIEGO, COUNTY OF SAN DIEGO, STATE OF CALIFORNIA, FILED IN THE OFFICE OF THE COUNTY RECORDER OF SAN DIEGO COUNTY, FEBRUARY 11, 1988 AS FILE NO. 88-064875 OF OFFICIAL RECORDS. EXCEPTING THEREFROM THOSE PORTIONS LYING WITHIN DENNERY RANCH UNIT NO. 1B ACCORDING TO MAP THEREOF NO. 13724 FILED FEBRUARY 22, 1999; DENNERY RANCH UNIT NO. 1C ACCORDING TO MAP THEREOF NO. 13760 FILED APRIL 16, 1999; DENNERY RANCH UNIT 2A ACCORDING TO MAP THEREOF NO. NO. 13933 FILED FEBRUARY 15, 2000 AND DENNERY RANCH UNIT 2B ACCORDING TO MAP NO. 13934 FILED FEBRUARY 15, 2000, ALL IN THE OFFICE OF SAID COUNTY RECORDER OF SAN DIEGO COUNTY.

PROPOSED LEGAL DESCRIPTION

LOT 1 AND LOT 2 OF DENNERY RANCH 2/3, MAP NO. 15592

GRADING QUANTITIES

GRADING QUANTITIES ARE GEOMETRIC QUANTITIES FOR PERMIT FEE AND BONDING PURPOSES ONLY, AND DO NOT INCLUDE REMEDIAL QUANTITIES, IF ANY. THESE QUANTITIES ARE NOT PAY QUANTITIES AND THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THEIR OWN GRADING TAKE-OFFS.

GRADED AREA	27.20 ACRES	MAX. CUT DEPTH	22.8 FT.
CUT	143,000 CY.	MAX CUT SLOPE RATIO (2:1MAX)	2:1
FILL	226,000 CY.	MAX. FILL DEPTH	27.9 FT.
IMPORT	75,000 CY.	MAX FILL SLOPE RATIO (2:1MAX)	2:1

AN AS-GRADED GEOTECHNICAL REPORT SHALL BE SUBMITTED TO BOOTH 32 ON THE THIRD FLOOR OF DEVELOPMENT SERVICES WITHIN 15 CALENDAR DAYS OF COMPLETION OF GRADING. AN ADDITIONAL SET SHALL BE PROVIDED TO THE FIELD INSPECTION DIVISION.

THIS PROJECT PROPOSES TO EXPORT 0 CUBIC YARDS OF MATERIAL FROM THIS SITE. ALL EXPORT MATERIAL SHALL BE DISCHARGED TO A LEGAL DISPOSAL SITE. THE APPROVAL OF THIS PROJECT DOES NOT ALLOW PROCESSING AND SALE OF THE MATERIAL. ALL SUCH ACTIVITIES REQUIRE A SEPARATE CONDITIONAL USE PERMIT.

STREET DESIGN DATA

STREET NAME	FUTURE A.D.T.	CLASSIFICATION	DESIGN SPEED	R.O.W.
DENNERY ROAD	30,000	4 LANE MAJOR	45 MPH	64'-98'

DECLARATION OF RESPONSIBLE CHARGE

I HEREBY DECLARE THAT I AM THE ENGINEER OF WORK FOR THIS PROJECT, THAT I HAVE EXERCISED RESPONSIBLE CHARGE OVER THE DESIGN OF THE PROJECT AS DEFINED IN SECTION 6703 OF THE BUSINESS AND PROFESSIONS CODE, AND THAT THE DESIGN IS CONSISTENT WITH CURRENT STANDARDS.

I UNDERSTAND THAT THE CHECK OF PROJECT DRAWINGS AND SPECIFICATIONS BY THE CITY OF SAN DIEGO IS CONFINED TO A REVIEW ONLY AND DOES NOT RELIEVE ME, AS ENGINEER OF WORK, OF MY RESPONSIBILITIES FOR PROJECT DESIGN.

Curtis J. Turner 7-16-07
DATE

CONSTRUCTION CHANGE TABLE

CHANGE	DATE	SHEET NUMBERS REVISED OR ADDED THIS CHANGE	APPROVAL NO.
A	6/4/08	1, 7-8, 16-23 (VOIDED), 24, 26, 8 27-34 (NEW SHEETS)	539981
B	10/5/11	1, 21, 30 (VOID), 31, 36 (VOID)	614793

SHEET INDEX

SHEET NO.	DESCRIPTION
1	GRADING PLANS TITLE SHEET
2 THRU 3	NOTES
4	KEY MAP AND DETAILS
5 THRU 8	GRADING PLANS
9 THRU 12	EROSION CONTROL PLANS
13	BORROW SITE PLAN
14	BURN ASH REMEDIATION
15	BAFFLE BOX DETAILS
16 THRU 36	LANDSCAPE PLANS
30 & 34	LANDSCAPE PLANS (VOID)

BENCHMARK

STATION NAME: FOR HORIZONTAL CONTROL: 1398/GAS
FOR VERTICAL CONTROL: 1398/GAS

CALIFORNIA COORDINATE INDEX (NAD 83): N: 1790280.53 E: 6325648.40
ELEVATION: 533.47 FT.
REFERENCE: CITY OF SAN DIEGO GPS CONTROL MONUMENT DATED: AUGUST 1992

GRADING NOTES

1. EMERGENCY EROSION CONTROL MEASURES TO CONTROL SOILS MOVEMENT SATISFACTORY TO THE CITY ENGINEER IN THE EVENT THE SITE IS EXPOSED TO EROSION DURING THE PERIOD BETWEEN NOVEMBER 1ST AND APRIL 15TH. EROSION CONTROL MEASURES SHALL INCLUDE BUT NOT BE LIMITED TO, SLOPE PROTECTION, INSTALLATION OF JUTE MATTING OR APPROVED EQUIVALENT, SILTING BASINS, SILT CONTROL, GRAVEL BAGGING AND STORM DRAIN.

2. TEMPORARY EROSION CONTROL DEVICES SHOWN ON GRADING PLAN WHICH INTERFERE WITH THE WORK SHALL BE RELOCATED OR MODIFIED AS AND WHEN THE INSPECTOR SO DIRECTS AS THE WORK PROGRESSES.

3. BRUSH AND TREES SHALL BE REMOVED ONLY WITHIN THE AREA TO BE GRADED. WHEN TREES ARE REMOVED, THE ROOT SYSTEMS SHALL ALSO BE REMOVED AND THE RESULTING BE REMOVED AND THE RESULTING EXCAVATION FILLED WITH PROPERLY COMPACTED FILL SOILS

4. CUT AND FILL SLOPES SHALL BE TRIMMED TO THE FINISH GRADE TO PRODUCE A SMOOTH AND UNIFORM SURFACE OR CROSS-SECTION. THE SLOPES OF EXCAVATIONS OR EMBANKMENTS SHALL BE SHAPED AND TRIMMED, AS DIRECTED BY THE ENGINEER OF WORK AND LEFT IN A NEAT AND ORDERLY CONDITION. ALL STONES, ROOTS, OR OTHER WASTE MATTER EXPOSED ON EXCAVATION OR EMBANKMENT SLOPE SHALL BE REMOVED AND DISPOSED OF.

5. WHERE TRENCHES ARE WITHIN EASEMENTS, SOILS REPORTS SHALL BE SUBMITTED TO THE ENGINEER OF WORK BY A QUALIFIED SOILS ENGINEER WHICH INDICATES THAT TRENCH BACKFILL WAS COMPACTED AS OBSERVED BY THE SOILS ENGINEER IN ACCORDANCE WITH ONSITE EARTHWORK SPECIFICATIONS.

6. CONTRACTOR WILL MAKE EXPLORATION EXCAVATIONS AND LOCATE EXISTING UNDERGROUND FACILITIES SUFFICIENTLY AHEAD OF CONSTRUCTION PERMIT REVISIONS TO PLANS IF REVISIONS ARE NECESSARY BECAUSE OF LOCATION OF EXISTING FACILITIES.

7. CONTRACTOR SHALL NOTIFY THE SAN DIEGO GAS & ELECTRIC COMPANY PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES.

8. CONTRACTOR SHALL NOTIFY THE PACIFIC TELEPHONE COMPANY PRIOR TO STARTING WORK NEAR COMPANY FACILITIES AND SHALL COORDINATE HIS WORK WITH COMPANY REPRESENTATIVES.

9. BEFORE EXCAVATING FOR THIS CONTRACT, VERIFY LOCATION OF UNDERGROUND UTILITIES. THE CONTRACTOR SHALL TELEPHONE FOR:

PACIFIC TELEPHONE FACILITIES	(800) 422-4133
SAN DIEGO GAS & ELECTRIC COMPANY	(619) 235-6321

10. GRADING AS SHOWN ON THESE PLANS IS IN CONFORMANCE WITH CITY STANDARD DRAWINGS SDL-101 AND SDL-102; CURRENT STANDARD SPECIFICATION AND CHAPTER 14, DIVISION 1, OF SAN DIEGO MUNICIPAL CODE, 2000 EDITION.

11. THE CONTRACTOR IS REQUIRED TO TAKE PRECAUTIONARY MEASURES TO PROTECT THE UTILITY LINES SHOWN AND ANY OTHER LINES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

12. STORM DRAIN SYSTEM SHALL BE INSTALLED IMMEDIATELY AFTER ROUGH GRADING IS COMPLETE.

13. PLANT AND IRRIGATE ALL CUT AND FILL SLOPES AS REQUIRED BY ARTICLE 2, DIVISION 4, SECTION 142.0411 OF THE SAN DIEGO LAND DEVELOPMENT CODE AND ACCORDING TO SECTION IV OF THE LAND DEVELOPMENT MANUAL LANDSCAPE STANDARDS.

14. GRADED, DISTURBED OR ERODED AREAS THAT WILL NOT BE PERMANENTLY PAVED, COVERED BY STRUCTURE, OR PLANTED FOR A PERIOD OVER 90 CALENDAR DAYS SHALL BE TEMPORARY REVEGETATED WITH A NON-IRRIGATED HYDROSEED MIX, GROUND COVER, OR EQUIVALENT MATERIAL. HYDROSEED MIXES CAN BE FOUND ON SHEET 24 AND 25.

GRADING AND GEOTECHNICAL SPECIFICATIONS

1. ALL GRADING SHALL BE DONE UNDER THE OBSERVATION AND TESTING BY A QUALIFIED CIVIL ENGINEER OR GEOTECHNICAL ENGINEER AND, IF REQUIRED, BOTH A QUALIFIED CIVIL ENGINEER OR GEOTECHNICAL ENGINEER AND AN ENGINEERING GEOLOGIST. ALL GRADING MUST BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY ORDINANCE AND THE RECOMMENDATIONS AND SPECIFICATIONS SET FORTH IN THE SOILS REPORT OR GEOLOGICAL/GEOTECHNICAL INVESTIGATION ENTITLED: GRADING PLAN REVIEW, RIVEREDGE TERRACE, DENNERY RANCH PA 2/3, SAN DIEGO, "AS THIS REPORT WAS PREPARED BY PACIFIC SOILS ENGINEERING, INC., DATED OCTOBER 4, 2006 (WORK ORDER NO. 400588).

2. ALL FILL MATERIAL SHALL BE COMPACTED TO A MINIMUM OF 90% OF THE MAXIMUM DRY DENSITY AS DETERMINED BY THE MOST RECENT VERSION OF A.S.T.M. D-1557 OR AN APPROVED ALTERNATIVE STANDARD.

3. AT THE COMPLETION OF THE GRADING OPERATIONS FOR THE EARTHWORK SHOWN ON THIS PLAN, AN AS-GRADED SOILS REPORT, OR IF REQUIRED, AN AS-GRADED SOILS AND GEOLOGICAL REPORT WILL BE PREPARED IN ACCORDANCE WITH THE MOST RECENT EDITION OF THE CITY OF SAN DIEGO TECHNICAL GUIDELINES FOR GEOTECHNICAL REPORTS. THE FINAL "AS-GRADED" GEOTECHNICAL REPORT WILL BE SUBMITTED TO THE FIELD ENGINEERING SECTION OF PUBLIC WORKS AND A SECOND COPY TO THE GEOLOGY SECTION OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT WITHIN 15 DAYS OF THE COMPLETION OF GRADING. WHERE GEOLOGIC INSPECTION IS INDICATED IN THE PERMIT OR PROJECT PLANS, REPORTS OR SPECIFICATIONS, THE FINAL REPORT MUST ALSO BE REVIEWED AND SIGNED BY A CALIFORNIA CERTIFIED ENGINEERING GEOLOGIST.

4. IF THE GEOTECHNICAL CONSULTANT OF RECORD IS CHANGED FOR THE PROJECT, THE WORK SHALL BE STOPPED UNTIL THE REPLACEMENT HAS AGREED IN WRITING TO ACCEPT THE RESPONSIBILITY WITHIN THE AREA OF THEIR TECHNICAL COMPETENCE FOR APPROVAL UPON THE COMPLETION OF THE WORK. IT SHALL BE THE DUTY OF THE PERMITTEE TO NOTIFY THE CITY ENGINEER AND THE LDR GEOLOGY SECTION OF THE DEVELOPMENT SERVICES DEPARTMENT IN WRITING OF SUCH CHANGE PRIOR TO THE COMMENCEMENT OF GRADING.

5. THESE GRADING PLANS HAVE BEEN REVIEWED BY THE UNDERSIGNED AND FOUND TO BE IN CONFORMANCE WITH THE RECOMMENDATIONS AND SPECIFICATIONS OUTLINED IN THE REFERENCED SOILS REPORT OR GEOLOGICAL/GEOTECHNICAL INVESTIGATION PREPARED FOR THIS DEVELOPMENT.

Signature R.C.E. or C 70633 Number Date 6/30/09

Signature C.E.G. 1713 Number Date 7-13-07

PACIFIC SOILS ENGINEERING, INC.
7715 CONVOY COURT
SAN DIEGO, CA 92111
Phone No. (858) 560-1713

6. FOR SOIL FILE SEE CITY RECORD S-115096

WORK TO BE DONE

THE IMPROVEMENTS CONSIST OF THE FOLLOWING WORK TO BE DONE ACCORDING TO THESE PLANS AND THE SPECIFICATIONS AND STANDARD DRAWINGS OF THE CITY OF SAN DIEGO.

STANDARD SPECIFICATIONS

1. STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 2006 EDITION (GREENBOOK), DOCUMENT NO. AEC1231061, FILED DECEMBER 31, 2006, INCLUDING THE REGIONAL AND CITY OF SAN DIEGO SUPPLEMENT, DOCUMENT NO. AEC1231062, FILED DECEMBER 31, 2006.

2. 1999 STANDARD SPECIAL PROVISIONS FOR SIGNALS, LIGHTING AND ELECTRICAL SYSTEMS OF CITY OF SAN DIEGO, DOCUMENT NO. 769842, FILED OCTOBER 22, 1999.

3. CALIFORNIA MUTCD (FHWA'S MUTCD 2003 EDITION, AS AMENDED FOR USE IN CALIFORNIA) DOCUMENT NO. AEC1231064, FILED DECEMBER 31, 2006.

4. STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD SPECIFICATIONS, DOCUMENT NO. AEC0925062, FILED SEPTEMBER 25, 2006.

STANDARD DRAWINGS

1. CITY OF SAN DIEGO STANDARD DRAWINGS, INCLUDING ALL REGIONAL STANDARD DRAWINGS, DOCUMENT NO. AEC1231063, FILED DECEMBER 31, 2006.

2. STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION, STANDARD PLANS, DOCUMENT NO. AEC0925061, FILED SEPTEMBER 25, 2006.

LEGEND

	STD. DWG. NO.	SYMBOL
PROJECT BOUNDARY		
LOT LINE		
PROPOSED CONTOUR		100
EXISTING CONTOUR		100
PROPOSED FINISHED GRADE ELEVATION		146.5
EXISTING SPOT ELEVATION		(146.5)
PROPOSED CUT/FILL SLOPE (2:1 OR FLATTER)		
EXISTING CURB & GUTTER		
EXISTING MEDIAN CURB		
FUTURE CURB & GUTTER		
FUTURE MEDIAN CURB		
FLOW ARROW		
PROPOSED GRATE INLET & TYPE G CLEAN OUT	D-13, D-15, D-8	
PROPOSED TYPE 'B' CURB INLET	D-2, D-11, D-12	
PROPOSED TYPE "A-4" CLEANOUT (PVT.)	D-8, D-11, D-12	
PROPOSED STORM DRAIN PIPE (PVT.) (18"-30")	D-60	
BAFFLE BOX	(SEE DETAILS ON SHEET 15)	
DAYLIGHT LINE		
BOUNDARY MONUMENTS		
SETTLEMENT PLATE (PER GEOTECHNICAL REPORT)		

REFERENCE DRAWINGS

DENNERY RANCH 27" SEWER RELOCATION	DRAWING NO. 30027-D
DENNERY RANCH MASS GRADING	DRAWING NO. 28847-D
DENNERY RANCH UNIT 1B	DRAWING NO. 28875-D
DENNERY ROAD UNIT 1C	DRAWING NO. 29126-D
SOUTH SAN DIEGO PIPE LINE #2	DRAWING NO. 29596-D
DENNERY ROAD PHASE 3	DRAWING NO. 29869-D

OWNER AND DEVELOPER

PARDEE HOMES
10880 WILSHIRE BLVD., SUITE 1900
LOS ANGELES, CALIFORNIA 90024
(310) 475-3525

ASSESSORS PARCEL NUMBER

645-010-11

NOTES
FOR LANDSCAPING PLANS AND MWRP NOTES OF LOT 2 SEE DRAWING 38297-D

ID# 1342.17.40

WDID NO. 9 370345939
SDP NO. 298506
ENGINEERING PERMIT NO. 388205
CONSTRUCTION SITE PRIORITY: HIGH
PRIVATE CONTRACT

GRADING PLANS FOR:
RIVEREDGE TERRACE
DENNERY RANCH PA 2/3

TITLE SHEET

CITY OF SAN DIEGO, CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT
SHEET 1 OF 36 SHEETS

FOR CITY ENGINEER — DATE 7/16/07

W.O. NO. 427040
P.T.S. NO. 115096
V.T.M. 306147

DESCRIPTION	BY	APPROVED	DATE	FILM ID
ORIGINAL	PDC			
A CHANGE	PDC	[illegible]	6/4/08	
B CHANGE	PDC	[illegible]	9-16-11	
AS-BUILT	PDC			

1784-6321
NAD 83 COORDINATES
154-1781
LAMBERT COORDINATES

CONTRACTOR RESPONSIBLE FOR AS-BUILTS: DATE STARTED 7/16/07
INSPECTOR RISK ENGINEER: DATE COMPLETED 9/8/13

34341-1-D
JOB NO. 2193.10

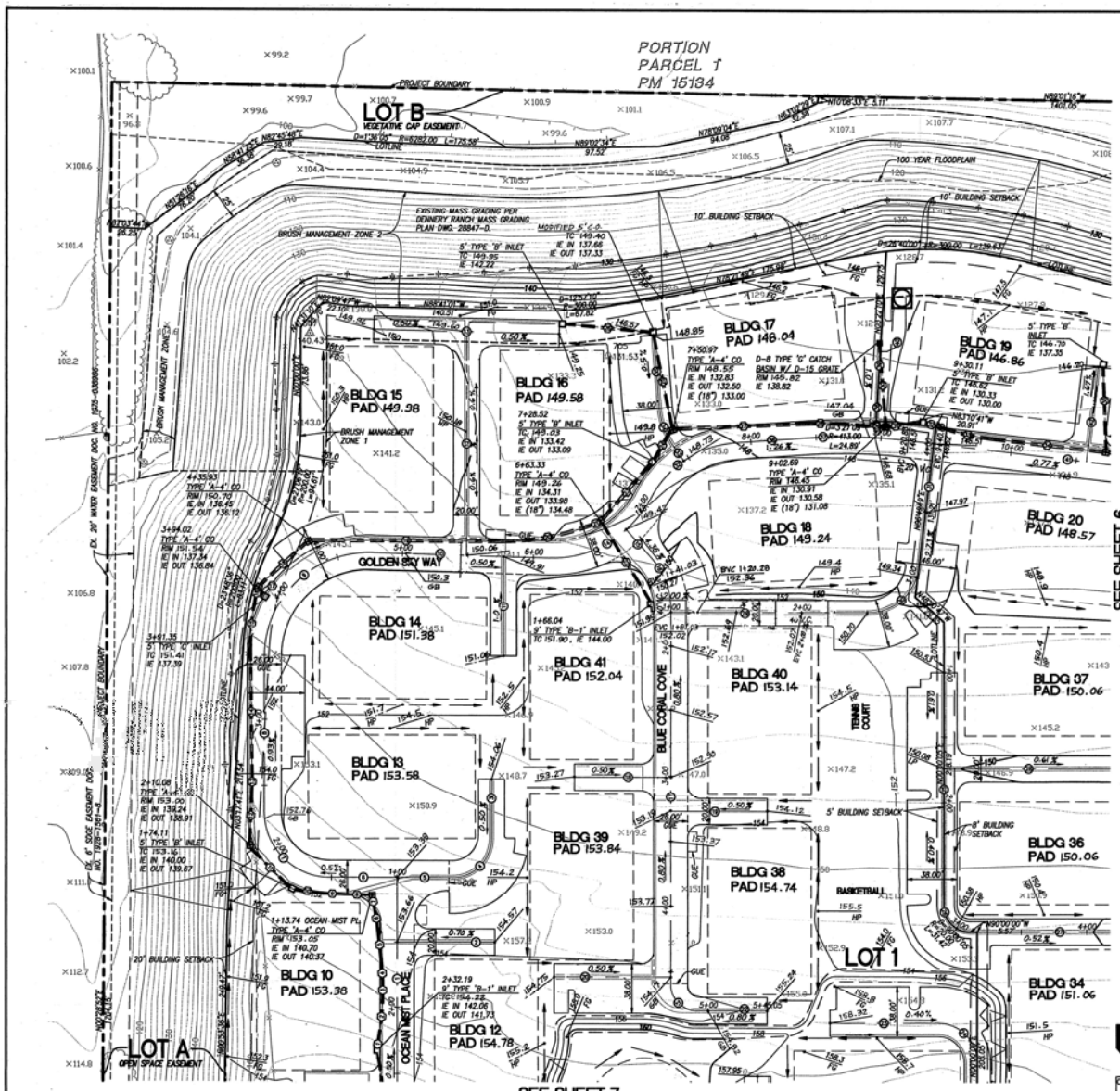
PROJECT DESIGN CONSULTANTS
Planning | Landscape Architecture | Environmental | Engineering | Survey
701 B Street, Suite 800, San Diego, CA 92101, 619.235.6471 Tel, 619.234.0349 Fax

CURTIS J. TURNER, R.C.E. 59285 — DATE REGISTRATION EXPIRES 06-30-09 — 7-16-07
DESIGNED BY: JRC — PM REVIEW: GP — SURVEY REVIEW:

AS BUILT

A - REVISED TOTAL NUMBER OF SHEETS FROM 26 TO 36
B - REVISED SHEET INDEX, ADDED NOTE

P:\2193\ENGR_PLANS\GRD PLANS 34341-1\2193_GRD01.DWG 07/09/2007 02:47:21 PM



CENTER LINE DATA				
NO.	DELTA OR BRG.	RADIUS(ft)	LENGTH(ft)	REMARKS
(1)	N00°00'00"E	-------	155.72	CENTER LINE
(2)	N90°00'00"E	-------	74.55	"
(3)	N00°00'00"E	-------	45.10	"
(4)	90°00'00"	30.00	47.12	"
(5)	N90°00'00"E	-------	41.98	"
(6)	N90°00'00"E	-------	51.47	"
(7)	90°00'00"	50.00	78.54	"
(8)	N00°00'00"E	-------	118.96	"
(9)	91°35'06"	80.00	127.88	"
(10)	N88°24'54"W	-------	135.35	"
(11)	N00°00'00"E	-------	76.17	"
(12)	N00°00'00"E	-------	171.44	"
(13)	N58°47'15"W	-------	141.48	"
(14)	64°24'39"	84.00	94.43	"
(15)	N42°04'22"W	-------	28.10	"
(16)	42°04'22"	60.00	44.06	"
(17)	N00°00'00"E	-------	287.81	"
(18)	N90°00'00"W	-------	73.79	"
(19)	N90°00'00"W	-------	89.15	"
(20)	90°00'00"	20.00	31.42	"
(21)	N90°00'00"E	-------	53.66	"
(22)	N90°00'00"E	-------	83.00	"
(23)	90°00'00"	30.00	47.12	"
(24)	N00°00'00"E	-------	179.33	"
(25)	N90°00'00"W	20.00	31.42	"
(26)	N90°00'00"W	-------	73.79	"
(27)	N90°00'00"W	-------	137.39	"
(28)	N90°00'00"E	-------	129.87	"
(29)	N90°00'00"E	-------	149.87	"
(30)	83°10'41"	40.00	58.07	"
(31)	N06°49'19"E	-------	155.46	"
(32)	58°45'44"	80.00	82.05	"
(33)	N34°49'41"W	-------	14.43	"
(34)	30°09'38"	60.00	31.58	"
(35)	N04°40'03"W	-------	53.46	"
(36)	N85°56'18"E	-------	54.80	"
(37)	105°31'01"	400.00	75.98	"
(38)	N03°22'10"E	-------	47.05	"
(39)	122°11'0"	300.00	17.64	"
(40)	N00°00'00"E	-------	9.81	"
(41)	N83°10'41"W	-------	575.40	"
(42)	N06°49'19"E	-------	73.80	"

STORM DRAIN DATA				
NO.	DELTA OR BRG.	RADIUS(ft)	LENGTH(ft)	REMARKS
(1)	N10°28'24"E	-------	5.05	18" HDPE
(2)	10°28'24"	200.00	36.56	"
(3)	N00°00'00"E	-------	6.16	"
(4)	6°22'48"	200.00	22.27	"
(5)	N06°27'48"W	-------	21.24	"
(6)	5°27'11"	200.00	19.03	"
(7)	N11°49'59"W	-------	7.00	"
(8)	N88°28'59"W	-------	19.33	"
(9)	5°13'52"	200.00	18.20	"
(10)	N83°16'07"W	-------	19.82	"
(11)	N45°16'34"W	-------	42.81	"
(12)	N02°27'09"E	-------	40.89	18" HDPE
(13)	3°14'00"	200.00	11.29	"
(14)	N00°46'51"W	-------	94.20	"
(15)	12°16'53"	200.00	43.99	"
(16)	N11°33'02"E	-------	5.34	"
(17)	N18°06'21"W	-------	5.00	"
(18)	N47°36'08"E	-------	47.91	24" HDPE
(19)	N89°51'12"W	-------	145.35	"
(20)	20°25'29"	200.00	71.30	"
(21)	N69°23'57"E	-------	4.62	"
(22)	N31°54'31"W	-------	70.16	18" HDPE
(23)	N40°18'02"E	-------	56.37	24" HDPE
(24)	N29°04'03"E	-------	25.96	"
(25)	N11°28'20"W	-------	72.39	18" HDPE
(26)	N84°49'03"W	-------	65.62	18" HDPE
(27)	N51°32'40"E	-------	104.20	24" HDPE
(28)	6°26'44"	200.00	22.50	"
(29)	N86°00'36"W	-------	32.40	"
(30)	N04°25'36"W	-------	61.13	18" HDPE
(31)	N81°07'48"E	-------	24.73	24" HDPE
(32)	N7°22'41"W	-------	14.85	"
(33)	10°43'00"	200.00	37.41	"
(34)	N83°10'41"W	-------	65.72	"
(35)	N02°51'19"E	-------	63.63	18" HDPE

* WATER TIGHT JOINTS

NOTE: SEE ENCROACHMENT MAINTENANCE & REMOVAL AGREEMENT NO. 442448 FOR SPECIAL PAVING, PRIVATE SEWER, AND PRIVATE STORM DRAIN WITHIN PUBLIC WATER EASEMENT.

NOTE: GENERAL UTILITY EASEMENT PER FINAL MAP NO. 15692

GRAPHICAL SCALE
SCALE: 1" = 40'

REGISTERED PROFESSIONAL ENGINEER
CURTIS J. TURNER
No. 59285
Exp. 06-30-09
CIVIL
STATE OF CALIFORNIA

PROJECT DESIGN CONSULTANTS
Planning | Landscape Architecture | Environmental | Engineering | Survey
701 B Street, Suite 800
San Diego, CA 92101
619.236.6471 Tel
619.234.0349 Fax

CURTIS J. TURNER, R.C.E. 59285 — DATE REGISTRATION EXPIRES 06-30-09 — DESIGNED BTC — PM REVIEW RC — SURVEY REVIEW GP

PRIVATE CONTRACT

GRADING PLANS FOR:

RIVEREDGE TERRACE
DENNERY RANCH PA 2/3

CITY OF SAN DIEGO, CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT
SHEET 5 OF 39 SHEETS

FOR CITY ENGINEER — DATE 7/18/07

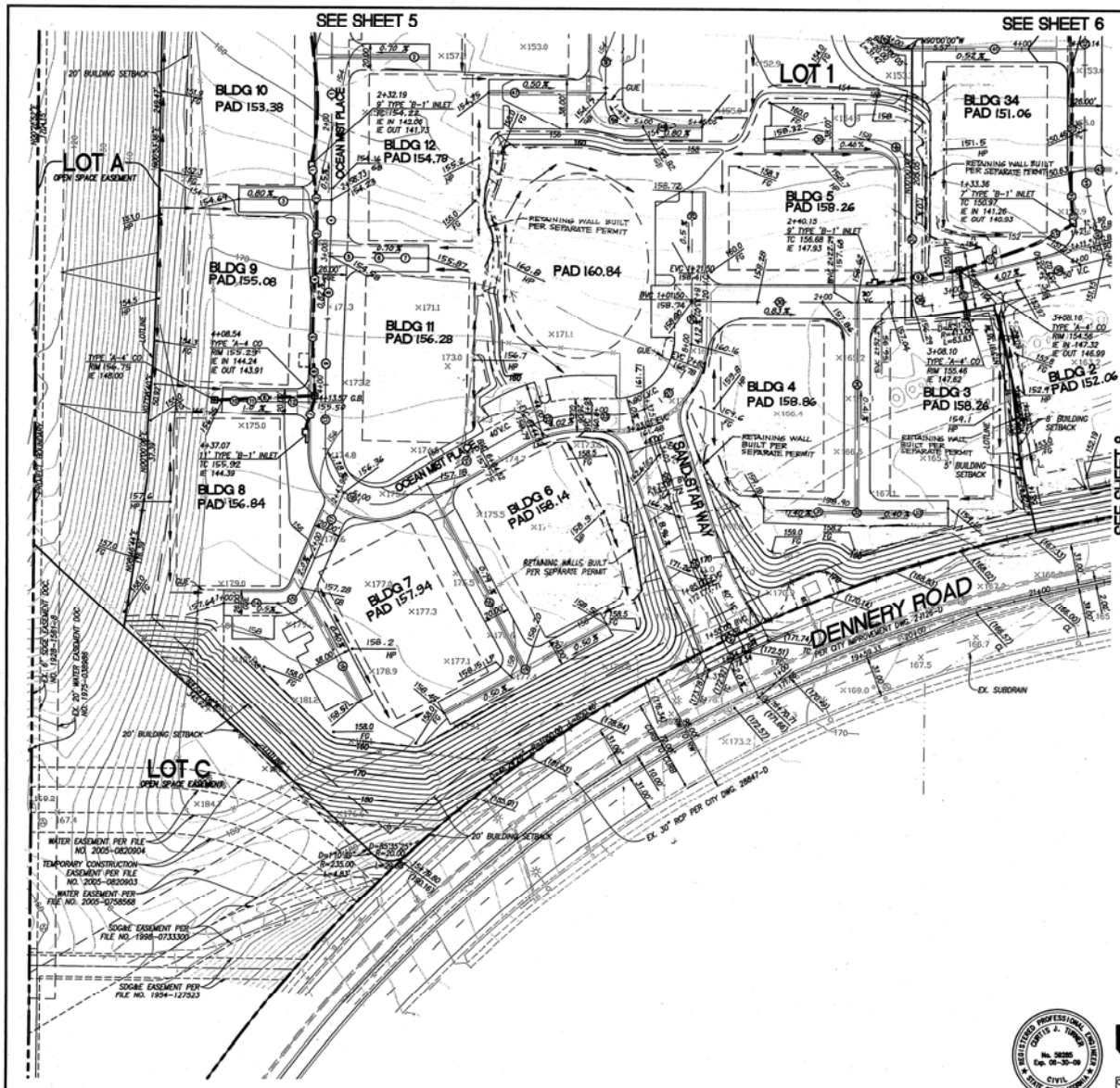
DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	PDC			
AS-BUILT	PDC			

CONTRACTOR RAINTREE MONSE DATE STARTED 12/6/07
INSPECTOR RICK SKINNER DATE COMPLETED 4/8/15

W.O. NO. 427040
P.T.S. NO. 115096
V.T.M. 306147
1794-6321
NAD 83 COORDINATES
154-1761
LAMBERT COORDINATES
34341- 5 -D
JOB NO. 2193.10

AS BUILT

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CENTER LINE DATA				
NO.	DELTA OR BRG.	RADIUS(R)	LENGTH(R)	REMARKS
(1)	N00°00'00"E	-------	155.72	CENTER LINE
(2)	N90°00'00"E	-------	74.55	"
(3)	N89°45'23"W	-------	70.65	"
(4)	2°11'17"	1000.00	38.19	"
(5)	N87°48'43"W	-------	28.52	"
(6)	2°11'17"	300.00	11.46	"
(7)	N90°00'00"E	-------	35.07	"
(8)	N02°11'17"E	-------	71.03	"
(9)	2°11'17"	1000.00	38.19	"
(10)	N87°06'13"W	-------	18.76	"
(11)	2°53'42"	200.00	10.11	"
(12)	N90°00'00"E	-------	40.96	"
(13)	N00°00'00"E	-------	46.81	"
(14)	N90°00'00"E	-------	41.25	"
(15)	66°14'08"	20.00	23.12	"
(16)	N27°55'47"W	-------	97.32	"
(17)	N23°45'52"E	-------	79.59	"
(18)	120°22'25"	40.00	84.04	"
(19)	N80°49'50"E	-------	142.03	"
(20)	N27°56'16"W	-------	159.74	"
(21)	N59°37'35"E	-------	99.24	"
(22)	30°22'25"	100.00	53.01	"
(23)	N90°00'00"W	-------	22.96	"
(24)	N23°56'22"W	-------	99.00	"
(25)	753°53'	200.00	27.55	"
(26)	N18°02'49"W	-------	111.01	"
(27)	90°00'00"	60.00	94.25	"
(28)	N00°00'00"E	-------	27.60	"
(29)	N00°00'00"E	-------	63.62	"
(30)	N90°00'00"W	-------	134.49	"
(31)	N88°23'24"W	-------	64.17	"
(32)	1°36'36"	500.00	14.05	"
(33)	N90°00'00"W	-------	62.77	"
(34)	N00°00'00"E	-------	161.87	"
(35)	N90°00'00"E	-------	83.00	"
(36)	60°00'00"	90.00	47.12	"
(37)	N00°00'00"E	-------	92.35	"
(38)	14°11'19"	400.00	99.06	"
(39)	N75°48'41"E	-------	88.15	"
(40)	90°00'00"	20.00	31.42	"
(41)	N90°00'00"W	-------	137.39	"
(42)	N00°00'00"E	-------	162.52	"
(43)	N90°00'00"W	-------	70.25	"
(44)	14°11'19"	200.00	49.53	"
(45)	N14°11'19"W	-------	30.34	"
(46)	N00°00'00"E	-------	287.81	"
(47)	N90°00'00"W	-------	89.15	"
(48)	90°00'00"	20.00	31.42	"
(49)	N90°00'00"E	-------	53.66	"

STORM DRAIN DATA				
NO.	DELTA OR BRG.	RADIUS(R)	LENGTH(R)	REMARKS
(1)	N09°53'04"W	-------	3.57	18" HDPE
(2)	11°04'12"	200.00	38.64	"
(3)	170°09"	989.00	17.30	"
(4)	N02°11'17"E	-------	61.33	"
(5)	4°51'44"	200.00	16.97	"
(6)	N02°40'27"W	-------	34.78	"
(7)	N15°59'32"E	-------	25.52	"
(8)	N87°08'00"E	-------	72.68	18" HDPE
(9)	N81°21'16"E	-------	61.39	"
(10)	N10°32'41"W	-------	29.97	"
(11)	N71°29'05"E	-------	42.96	"
(12)	14°43'23"	200.00	48.71	"
(13)	N07°10'43"W	-------	3.36	"
(14)	7°54'13"	200.00	27.59	"
(15)	N00°43'30"E	-------	75.04	"

* WATER TIGHT JOINTS

NOTE: SEE ENCROACHMENT MAINTENANCE & REMOVAL AGREEMENT NO. 442448 FOR SPECIAL PAVING, PRIVATE SEWER, AND PRIVATE STORM DRAIN WITHIN PUBLIC WATER EASEMENT.

NOTE: GENERAL UTILITY EASEMENT PER FINAL MAP NO. 15592

RETAINING WALLS SHOWN ON THESE PLANS ARE FOR INFORMATION ONLY. A SEPARATE BUILDING PERMIT AND INSPECTION WILL BE REQUIRED FROM THE DEVELOPMENT SERVICES DEPARTMENT FOR THEIR CONSTRUCTION. (SEE PTS NO. 149165)

N

0 20 40 80 120

GRAPHICAL SCALE
SCALE: 1" = 40'

PRIVATE CONTRACT

GRADING PLANS FOR:

RIVEREDGE TERRACE
DENNERY RANCH PA 2/3

CITY OF SAN DIEGO, CALIFORNIA
DEVELOPMENT SERVICES DEPARTMENT
SHEET 7 OF 38 SHEETS

W.O. NO. 427040
P.T.S. NO. 115096
V.T.M. 306147

FOR CITY ENGINEER — DATE 7/18/07

DESCRIPTION	BY	APPROVED	DATE	FILMED
ORIGINAL	PDC			
CHANGE	PDC	DLL	6/4/08	
AS-BUILT	PDC			

1794-6321
NAD 83 COORDINATES
154-1761
LAMBERT COORDINATES

CONTRACTOR Balboa Works DATE STARTED 7/30/07
INSPECTOR Rick Skinner DATE COMPLETED 8/8/08

34341- 7 -D
JOB NO. 2193.10

CURTIS J. TURNER, R.C.E. 59285
DATE OF EXPIRATION EXPIRES 08-30-09
7-16-07

DESIGNED DTC
DRAWN LC
CHECKED GP
SURVEY REVISED

PROJECT DESIGN CONSULTANTS
(Civil | Land Development | Land Surveying | Water Resources | Environmental | Engineering | Survey)
9245 Sorrento Valley Road, Suite 205, San Diego, CA 92121
(858) 558-4500 Fax (858) 558-1414

AS BUILT

⚠ - ADD RETAINING WALLS, TW, TF, & NOTE

P:\2193\ENGR_PLANS\GRD PLANS 34341-01\2193_GR007.DWG 07/12/2007 11:30:47 AM

ATTACHMENT 7

List of Plant Species Observed

Lycophytes [=Lycopods]

SELAGINELLACEAE – SPIKE-MOSS FAMILY

Selaginella cinerascens – ashy spike-moss

Angiosperms: Eudicots

AIZOACEAE – FIG-MARIGOLD FAMILY

* *Mesembryanthemum crystallinum* – crystalline iceplant
* *Mesembryanthemum nodiflorum* – slender-leaf iceplant

AMARANTHACEAE – AMARANTH FAMILY

Malosma laurina – laurel sumac
Rhus integrifolia – lemonadeberry
Toxicodendron diversilobum – western poison-oak
* *Schinus molle* – Peruvian pepper tree

APIACEAE – CARROT FAMILY

Daucus pusillus – rattlesnake weed
* *Foeniculum vulgare* – sweet fennel

ASTERACEAE – SUNFLOWER FAMILY

Ambrosia chenopodiifolia – San Diego bur-sage
Artemisia californica – coastal sagebrush
Baccharis salicifolia ssp. *salicifolia* – mule-fat, seep-willow
Baccharis sarothroides – broom baccharis
Deinandra conjugens – Otay tarplant
Deinandra fasciculata – fascicled tarweed
Erigeron canadensis – horseweed
Iva hayesiana – San Diego marsh-elder
Laennecia coulteri – Coulter's fleabane
Microseris douglasii ssp. *platycarpha* – small-flowered microseris
Pseudognaphalium californicum – California everlasting
Uropappus lindleyi – silver puffs
* *Carduus pycnocephalus* ssp. *pycnocephalus* – Italian thistle
* *Centaurea melitensis* – tocalote
* *Dittrichia graveolens* – stinkwort
* *Erigeron bonariensis* – flax-leaf fleabane
* *Glebionis coronaria* – garland/crown daisy
* *Helminthotheca echioides* – bristly ox-tongue
* *Hypochaeris glabra* – smooth cat's ear
* *Lactuca serriola* – prickly lettuce
* *Logfia gallica* – narrow-leaf cottonrose
* *Matricaria discoidea* – common pineapple-weed
* *Oncosiphon piluliferum* – stinknet

* *Pseudognaphalium luteoalbum* – fragrant everlasting cudweed
* *Senecio vulgaris* – common groundsel
* *Sonchus asper* ssp. *asper* – prickly sow-thistle
* *Sonchus oleraceus* – common sow-thistle
  Baccharis pilularis – chaparral broom, coyote brush
  Bahiopsis laciniata – San Diego County viguiera
  Hazardia squarrosa – sawtooth goldenbush
  Isocoma menziesii – coastal goldenbush

BORAGINACEAE – BORAGE FAMILY
  Amsinckia intermedia – rancher's fiddleneck
  Amsinckia menziesii – rigid fiddleneck
  Heliotropium curassavicum var. *oculatum* – salt heliotrope
  Phacelia minor – wild Canterbury-bell

BRASSICACEAE – MUSTARD FAMILY
  Lepidium nitidum – shining peppergrass
* *Brassica nigra* – black mustard
* *Hirschfeldia incana* – short-pod mustard

CACTACEAE – CACTUS FAMILY
  Cylindropuntia prolifera – coast cholla
  Ferocactus viridescens var. *viridescens* – San Diego barrel cactus

CARYOPHYLLACEAE – PINK FAMILY
* *Silene gallica* – common catchfly

CHENOPODIACEAE – Goosefoot Family
* *Atriplex semibaccata* – Australian saltbush
  Atriplex pacifica – South Coast saltscale
* *Salsola tragus* – prickly russian-thistle, tumbleweed

CLEOMACEAE – SPIDERFLOWER FAMILY
  Peritoma arborea – bladderpod

CRASSULACEAE – STONECROP FAMILY
  Crassula connata – pygmyweed
  Dudleya pulverulenta – chalk dudleya

CUCURBITACEAE – GOURD FAMILY
  Marah macrocarpa – manroot, wild-cucumber

EUPHORBIACEAE – SPURGE FAMILY
  Croton setiger – doveweed

FABACEAE – LEGUME FAMILY
* *Acacia redolens* – vanilla scented wattle
* *Medicago polymorpha* – California burclover
* *Melilotus indicus* – Indian sweetclover
* *Vachellia farnesiana* – sweet acacia

GENTIANACEAE – GENTIAN FAMILY
Zeltnera venusta – canchalagua

GERANIACEAE – GERANIUM FAMILY
* *Erodium cicutarium* – red-stem filaree/storksbill

LAMIACEAE – MINT FAMILY
Salvia mellifera – black sage
* *Marrubium vulgare* – horehound

LYTHRACEAE – LOOSESTRIFE FAMILY
* *Lythrum hyssopifolia* – grass poly

MALVACEAE – MALLOW FAMILY
Malacothamnus fasciculatus var. *fasciculatus* – chaparral bushmallow
* *Malva parviflora* – cheeseweed

MONTIACEAE – MONTIA FAMILY
Claytonia perfoliata – miner's-lettuce

MYRSINACEAE – MYRSINE FAMILY
* *Anagallis arvensis* – scarlet pimpernel, poor man's weatherglass

MYRTACEAE – MYRTLE FAMILY
* *Eucalyptus camaldulensis* – river red gum
* *Eucalyptus sideroxylon* – red iron bark

NYCTAGINACEAE – FOUR O'CLOCK FAMILY
Mirabilis laevis – wishbone plant

ONAGRACEAE – EVENING-PRIMROSE FAMILY
Camissoniopsis bistorta – California sun cup

PLANTAGINACEAE – PLANTAIN FAMILY
Plantago erecta – dot-seed plantain
Antirrhinum nuttallianum – Nuttall's snapdragon

POLEMONIACEAE – PHLOX FAMILY
Linanthus dianthiflorus – farinose ground pink

POLYGONACEAE – BUCKWHEAT FAMILY
Eriogonum fasciculatum var. *fasciculatum* – coast California buckwheat
* *Rumex crispus* – curly dock

PORTULACACEAE – PURSLANE FAMILY
* *Portulaca oleracea* – common purslane

RHAMNACEAE – BUCKTHORN FAMILY
Adolphia californica – California adolphia

RUBIACEAE – MADDER OR COFFEE FAMILY
Galium aparine – common bedstraw, goose grass

SALICACEAE – WILLOW FAMILY
Salix gooddingii – Gooding's black willow
Salix laevigata – red willow
Salix exigua – narrow-leaf willow

SIMMONDSIACEAE – JOJOBA FAMILY
Simmondsia chinensis – jojoba, goatnut

SOLANACEAE – NIGHTSHADE FAMILY
Solanum parishii – Parish's nightshade
* *Nicotiana glauca* – tree tobacco
TAMARICACEAE – TAMARISK FAMILY
* *Tamarix ramosissima* – saltcedar

URTICACEAE – STINGING NETTLE FAMILY
Hesperocnide tenella – western nettle
Urtica dioica ssp. *holosericea* – hoary nettle
* *Urtica urens* – dwarf nettle

VERBENACEAE – VERVAIN FAMILY
Verbena menthifolia – mint-leaf vervain

Angiosperms: Monocots

AGAVACEAE – AGAVE FAMILY
Yucca schidigera – Mohave yucca

ALLIACEAE – ONION FAMILY
Allium praecox – early onion

ARECACEAE – PALM FAMILY
* *Washingtonia robusta* – Mexican fan palm

IRIDACEAE – IRIS FAMILY

Sisyrinchium bellum – blue-eyed-grass

LILIACEAE – LILY FAMILY

Calochortus splendens – splendid mariposa lily

POACEAE – GRASS FAMILY

Stipa pulchra – purple needle grass
* *Avena barbata* – slender wild oat
* *Avena fatua* – wild oat
* *Bromus catharticus* var. *catharticus* – rescue grass
* *Bromus diandrus* – ripgut grass
* *Bromus hordeaceus* – soft chess
* *Cortaderia jubata* – purple pampas grass
* *Cortaderia selloana* – selloa pampas grass
* *Festuca myuros* – rat-tail fescue
* *Festuca perennis* – perennial rye grass
* *Polypogon monspeliensis* – annual beard grass
* *Bromus rubens* – foxtail chess, red brome
* *Hordeum murinum* – barley

THEMIDACEAE – BRODIAEA FAMILY

Dichelostemma capitatum ssp. *capitatum* – blue dicks, school bells

* Indicates non-native species.

ATTACHMENT 8

List of Wildlife Species Observed

AMPHIBIAN

Frogs

HYLIDAE—TREEFROGS

Pseudacris sp.—no common name

BIRD

Blackbirds, Orioles, and Allies

ICTERIDAE—BLACKBIRDS

Icterus cucullatus—hooded oriole

* *Molothrus ater*—brown-headed cowbird

Bushtits

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

Falcons

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius—American kestrel

Finches

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Haemorhous mexicanus—house finch

Spinus psaltria—lesser goldfinch

Flycatchers

TYRANNIDAE—TYRANT FLYCATCHERS

Empidonax difficilis—Pacific-slope flycatcher

Empidonax traillii—willow flycatcher

Sayornis nigricans—black phoebe

Sayornis saya—Say's phoebe

Tyrannus forficatus—scissor-tailed flycatcher

Hawks

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Buteo jamaicensis—red-tailed hawk

Buteo lineatus—red-shouldered hawk

Herons and Bitterns

ARDEIDAE—HERONS, BITTERNS, AND ALLIES

Ardea alba—great egret

Ardea herodias—great blue heron

Egretta thula—snowy egret
Nycticorax nycticorax—black-crowned night-heron

Hummingbirds

TROCHILIDAE—HUMMINGBIRDS

Archilochus alexandri—black-chinned hummingbird
Calypte anna—Anna's hummingbird
Selasphorus sp.—Allen's/rufous hummingbird

Jays, Magpies, and Crows

CORVIDAE—CROWS AND JAYS

Corvus brachyrhynchos—American crow
Corvus corax—common raven

Mockingbirds and Thrashers

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Toxostoma redivivum—California thrasher

New World Quail

ODONTOPHORIDAE—NEW WORLD QUAIL

Callipepla californica—California quail

New World Vultures

CATHARTIDAE—NEW WORLD VULTURES

Cathartes aura—turkey vulture

Old World Sparrows

PASSERIDAE—OLD WORLD SPARROWS

* *Passer domesticus*—house sparrow

Old World Warblers and Gnatcatchers

POLIOPTILIDAE—GNATCATCHERS

Polioptila caerulea—blue-gray gnatcatcher
Polioptila californica californica—coastal California gnatcatcher

Owls

TYTONIDAE—BARN OWLS

Tyto alba—barn owl

Pigeons and Doves

COLUMBIDAE—PIGEONS AND DOVES

Zenaida macroura—mourning dove

Shorebirds

CHARADRIIDAE—LAPWINGS AND PLOVERS

Charadrius vociferus—killdeer

Starlings and Allies

STURNIDAE—STARLINGS

* *Sturnus vulgaris*—European starling

Swallows

HIRUNDINIDAE—SWALLOWS

Petrochelidon pyrrhonota—cliff swallow
Stelgidopteryx serripennis—northern rough-winged swallow

Swifts

APODIDAE—SWIFTS

Aeronautes saxatalis—white-throated swift

Terns and Gulls

LARIDAE—GULLS, TERNS, AND SKIMMERS

—Gull sp.

Thrushes

TURDIDAE—THRUSHES

Sialia mexicana—western bluebird

Vireos

VIREONIDAE—VIREOS

Vireo bellii pusillus—least Bell's vireo

Waterfowl

ANATIDAE—DUCKS, GEESE, AND SWANS

Anas platyrhynchos—mallard

Wood Warblers and Allies

PARULIDAE—WOOD-WARBLERS

Geothlypis trichas—common yellowthroat

Setophaga coronata—yellow-rumped warbler
Setophaga petechia—yellow warbler
Leiothlypis celata—orange-crowned warbler

Woodpeckers

PICIDAE—WOODPECKERS AND ALLIES

Dryobates nuttallii—Nuttall's woodpecker

Wrens

TROGLODYTIDAE—WRENS

Troglodytes aedon—house wren
Thryomanes bewickii—Bewick's wren

New World Sparrows

PASSERELLIDAE—NEW WORLD SPARROWS

Melospiza melodia—song sparrow
Melozone crissalis—California towhee
Pipilo maculatus—spotted towhee

Chats

ICTERIIDAE—YELLOW-BREASTED CHAT

Icteria virens—yellow-breasted chat

Typical Warblers, Parrotbills, and Wrentit

SYLVIIDAE—SYLVIID WARBLERS

Chamaea fasciata—wrentit

INVERTEBRATE

Butterflies

NYMPHALIDAE—BRUSH-FOOTED BUTTERFLIES

Danaus plexippus—monarch
Nymphalis antiopa—mourning cloak
Vanessa cardui—painted lady

HESPERIIDAE—SKIPPERS

Erynnis funeralis—funereal duskywing

PAPILIONIDAE—SWALLOWTAILS

Papilio rutulus—western tiger swallowtail
Papilio zelicaon—anise swallowtail

PIERIDAE—WHITES AND SULFURS

Anthocharis sara sara—Pacific sara orangetip

MAMMAL

Canids

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote

Hares and Rabbits

LEPORIDAE—HARES AND RABBITS

Sylvilagus audubonii—desert cottontail

Sylvilagus bachmani—brush rabbit

Pocket Gophers

GEOMYIDAE—POCKET GOPHERS

Thomomys bottae—Botta's pocket gopher

Squirrels

SCIURIDAE—SQUIRRELS

Spermophilus (Otospermophilus) beecheyi—California ground squirrel

REPTILE

Lizards

PHRYNOSOMATIDAE—IGUANID LIZARDS

Sceloporus occidentalis—western fence lizard

ANGUIDAE—ALLIGATOR LIZARDS

Elgaria multicarinata—southern alligator lizard

* Indicates non-native species.

ATTACHMENT 9

Special-Status Plant Species Potential to Occur within the Project Area

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Abronia maritima	red sand-verbena	None/None/4.2/None/ None	Coastal dunes/perennial herb/Feb–Nov/0–330	Not expected to occur. No suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020; CCH 2020).
Acanthomintha ilicifolia	San Diego thorn-mint	FT/SE/1B.1/MSCP, Narrow Endemic/ Narrow Endemic	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; Clay, openings/annual herb/Apr–June/30–3,145	Not expected to occur. There is suitable coastal scrub and non-native grassland present; however, the project site lacks suitable friable soils with clay lenses to support this species. The closest known CNDDB occurrence is approximately 0.5 miles east of the project site northeast of Dennery Canyon (CDFW 2020). In addition, rare plant surveys were performed during this species' blooming period in May in 2020 and 2022 and San Diego thorn-mint was not observed.
Acmispon prostratus	Nuttall's acmispon	None/None/1B.1/ Covered/Covered	Coastal dunes, Coastal scrub (sandy)/annual herb/Mar–June (July)/0–35	Not expected to occur. There are no sandy soils on-site. The closest known CNDDB occurrence is approximately 3.7 miles northwest of the project site within a sandy area near Chula Vista powerplant (CDFW 2020). In addition, rare plant surveys were conducted in May and Nuttall's acmispon was not observed.
Adolphia californica	California adolphia	None/None/2B.1/ None/None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay/perennial deciduous shrub/Dec–May/30–2,425	Observed on-site.

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Agave shawii var. *shawii*	Shaw's agave	None/None/2B.1/ None/Narrow Endemic	Coastal bluff scrub, Coastal scrub; Maritime succulent scrub/perennial leaf succulent/Sep–May/5–395	Not expected to occur. There is suitable succulent scrub habitat; however, the site was previously used for agriculture and the site is disturbed. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020). In addition, rare plant surveys were conducted in May and Shaw's agave was not observed.
Ambrosia chenopodiifolia	San Diego bur-sage	None/None/2B.1/ None/None	Coastal scrub/perennial shrub/Apr–June/180–510	Observed on-site.
Ambrosia monogyra	singlewhorl burrobrush	None/None/2B.2/ None/None	Chaparral, Sonoran desert scrub; sandy/perennial shrub/Aug–Nov/30–1,640	Not expected to occur. The closest known CNDDB occurrence is approximately 1.6 miles west of the project site along the bed of Otay River (CDFW 2020). This perennial shrub was not observed during rare plant surveys. Singlewhorl burrobrush is easily observed year-round; however, another rare plant survey will be performed during the late season.
Ambrosia pumila	San Diego ambrosia	FE/None/1B.1/MSCP, Narrow Endemic/ Narrow Endemic	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; sandy loam or clay, often in disturbed areas, sometimes alkaline/perennial rhizomatous herb/Apr–Oct/65–1,360	Not expected to occur. There is suitable coastal scrub and sandy loam or clay soils present. The closest known CNDDB occurrence is approximately 0.7 miles east of the project site (CDFW 2020). This is a perennial rhizomatous species that is easily observed in large clumps year-round and a reference check was performed for this species in 2020. San Diego Ambrosia was not observed during rare plant surveys in May in 2020 or 2022.

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Aphanisma blitoides	aphanisma	None/None/1B.2/ None/Narrow Endemic	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy or gravelly/annual herb/Feb–June/0–1,000	Not expected to occur. The closest known CNDDB occurrence is approximately 1.3 miles southeast of the project site within Ocean View Hills (CDFW 2020). In addition, rare plant surveys were conducted in May and aphanisma was not observed.
Arctostaphylos otayensis	Otay manzanita	None/None/1B.2/ Covered/Covered	Chaparral, Cismontane woodland; metavolcanic/perennial evergreen shrub/Jan–Apr/900–5,575	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020). Otay manzanita was not observed during rare plant surveys.
Artemisia palmeri	San Diego sagewort	None/None/4.2/ None/None	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; sandy, mesic/perennial deciduous shrub/(Feb)May–Sep/45–3,000	Not expected to occur. The closest known CNDDB occurrence is approximately 1.5 miles west of the project site along the south side Otay River Valley at the base of the valley (CDFW 2020). San Diego sagewort was not observed during rare plant surveys in May.
Asplenium vespertinum	western spleenwort	None/None/4.2/ None/None	Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial rhizomatous herb/Feb–June/590–3,280	Not expected to occur. The site is outside of the species' known elevation range. The closest known occurrence is approximately 4.2 miles north of the project site within Sweetwater Valley (CCH 2020).

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Astragalus deanei	Dean's milk-vetch	None/None/1B.1/ None/None	Chaparral, Cismontane woodland, Coastal scrub, Riparian forest/perennial herb/Feb–May/245–2,280	Not expected to occur. There is suitable coastal scrub and riparian habitat present. The closest known CNDDB occurrence is approximately 2.5 miles north of the project site along the hills above Bonita within Upper Sweetwater Valley (CDFW 2020). Dean's milk vetch was not observed during rare plant surveys in May.
Astragalus tener var. *titi*	coastal dunes milk-vetch	FE/SE/1B.1/None/ Narrow Endemic	Coastal bluff scrub (sandy), Coastal dunes, Coastal prairie (mesic); often vernally mesic areas/annual herb/Mar–May/0–165	Not expected to occur. No suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Atriplex coulteri	Coulter's saltbush	None/None/1B.2/ None/None	Coastal bluff scrub, Coastal dunes, Coastal scrub, Valley and foothill grassland; alkaline or clay/perennial herb/Mar–Oct/5–1,505	Not expected to occur. There is suitable coastal scrub and grassland habitat present; however, there are no dunes or bluff scrub present. The closest known CNDDB occurrence is approximately 2.6 miles south of the project site along an Otay Mesa top (CDFW 2020). Coulter's saltbush was not observed during rare plant surveys in May.
Atriplex pacifica	South Coast saltscale	None/None/1B.2/ None/None	Coastal bluff scrub, Coastal dunes, Coastal scrub, Playas/annual herb/Mar–Oct/0–460	Not expected to occur. There is suitable coastal scrub present; however, there are no dunes or bluff scrub habitat present. The closest known CNDDB occurrence is approximately 1.0 mile south of the project site along the western slope of Otay Mesa (CDFW 2020). South coast saltscale was not observed during rare plant surveys in May.

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Bergerocactus emoryi	golden-spined cereus	None/None/2B.2/ None/None	Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy/perennial stem succulent/May–June/5–1,295	Not expected to occur. There is suitable coastal scrub present. The closest known CNDDB occurrence is approximately 1.0 mile south of the project site along the western slope of Otay Mesa (CDFW 2020). Golden-spined cereus was not observed during rare plant surveys in May but this succulent is easy to identify year-round.
Bloomeria clevelandii	San Diego goldenstar	None/None/1B.1/ MSCP/Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/perennial bulbiferous herb/Apr–May/160–1,525	Not expected to occur. There is coastal scrub and grassland habitat present. The closest known CNDDB occurrence is approximately 1.5 miles east of the project site north of Otay Valley Road at the crossing of Otay River (CDFW 2020). San Diego goldenstar had potential to occur in the non-native grassland; however, the grassland was highly disturbed with highly dense levels of invasive brome. San Diego goldenstar was not observed during this species blooming period in May 2020 and 2022. A reference check was performed prior to surveys in 2020.
Brodiaea orcuttii	Orcutt's brodiaea	None/None/1B.1/ Narrow Endemic/Covered	Closed-cone coniferous forest, Chaparral, Cismontane woodland, Meadows and seeps, Valley and foothill grassland, Vernal pools; mesic, clay/perennial bulbiferous herb/May–July/95–5,550	Not expected to occur. There is grassland habitat and clay soil present; however, the site was previously used for agriculture and is disturbed. The closest known CNDDB occurrence is approximately 4.2 miles east of the project site along edge of Otay Mesa above Otay Valley (CDFW 2020). A reference check was performed for this species and was in full bloom. Orcutt's brodiaea was not observed during May rare plant surveys.

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Calandrinia breweri	Brewer's calandrinia	None/None/4.2/ None/None	Chaparral, Coastal scrub; sandy or loamy, disturbed sites and burns/annual herb/(Jan)Mar–June/30–4,000	Not expected to occur. There is suitable coastal scrub and sandy loam soil; however, there are no known occurrences within 5 miles of the project site (CDFW 2020; CCH 2020). Brewer's calandrinia was not observed during rare plant surveys.
Calochortus dunnii	Dunn's mariposa lily	None/SR/1B.2/Narrow Endemic/Covered	Closed-cone coniferous forest, Chaparral, Valley and foothill grassland; gabbroic or metavolcanic, rocky/perennial bulbiferous herb/(Feb)Apr–June/605–6,000	Not expected to occur. The site is outside of the species' known elevation range. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Camissoniopsis lewisii	Lewis' evening-primrose	None/None/3/None/ None	Coastal bluff scrub, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland; sandy or clay/annual herb/Mar–May(June)/0–985	Not expected to occur. There is suitable coastal scrub and grassland habitat present; however, there are no dunes or bluff scrub on-site. The closest known occurrence is approximately 2.9 miles southwest of the project site in San Ysidro (CCH 2020). Lewis' evening primrose was not observed during rare plant surveys in May.
Caulanthus heterophyllus	California mustard	None/None/None/ MSCP/Covered	Coastal scrub, chaparral; dry, open, generally after fire, disturbance/annual herb/Mar–May/0–4,590	Not expected to occur. This species does not have a CRPR rank (CNPS 2020) and is not known to occur within the vicinity (CDFW 2020).
Ceanothus cyaneus	Lakeside ceanothus	None/None/1B.2/ Covered/Covered	Closed-cone coniferous forest, Chaparral/perennial evergreen shrub/Apr–June/770–2,475	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Ceanothus otayensis	Otay Mountain ceanothus	None/None/1B.2/ None/None	Chaparral (metavolcanic or gabbroic)/perennial evergreen shrub/Jan–Apr/1,965–3,605	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Ceanothus verrucosus	wart-stemmed ceanothus	None/None/2B.2/ Covered/Covered	Chaparral/perennial evergreen shrub/Dec–May/0–1,245	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 4.1 miles southwest of the project site east of Smuggler's Gulch along the U.S./Mexico International Border (CDFW 2020).
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None/None/1B.1/ None/None	Coastal bluff scrub (sandy), Coastal dunes/annual herb/Jan–Aug/0–330	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 4.5 miles west of the project site near the south end of San Diego Bay (CDFW 2020).
Chamaebatia australis	southern mountain misery	None/None/4.2/ None/None	Chaparral (gabbroic or metavolcanic)/perennial evergreen shrub/Nov–May/980–3,345	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020; CCH 2020).
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/SE/1B.2/Narrow Endemic/Covered	Coastal dunes, Marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct(Nov)/0–100	Not expected to occur. No suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Chorizanthe orcuttiana	Orcutt's spineflower	FE/SE/1B.1/None/ None	Closed-cone coniferous forest, Chaparral (maritime), Coastal scrub; sandy openings/annual herb/Mar–May/5–410	Not expected to occur. There is suitable coastal scrub and grassland habitat present; however, there are no known occurrences within 5 miles of the project site (CDFW 2020). Orcutt's spineflower was not observed during rare plant surveys in May.
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	None/None/1B.2/ None/None	Chaparral, Coastal scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools; often clay/annual herb/Apr–July/95–5,015	Not expected to occur. There is coastal scrub and grassland habitat present. The closest known CNDDB occurrence is approximately 1.2 miles northeast of the project site northwest of the Otay landfill (CDFW 2020). Long-spined spineflower was not observed during rare plant surveys in May.
Cistanthe maritima	seaside cistanthe	None/None/4.2/ None/None	Coastal bluff scrub, Coastal scrub, Valley and foothill grassland; sandy/annual herb/(Feb)Mar–June(Aug)/15–985	Not expected to occur. There is coastal scrub and grassland habitat present; however, there is no bluff scrub on-site. The closest known occurrence is approximately 1.3 miles southeast of the project site within the Dennery West Quino and vernal pool restoration-site (CCH 2020). Seaside cistanthe was not observed during rare plant surveys in May.
Clarkia delicata	delicate clarkia	None/None/1B.2/ None/None	Chaparral, Cismontane woodland; often gabbroic/annual herb/Apr–June/770–3,280	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Clinopodium chandleri	San Miguel savory	None/None/1B.2/ MSCP/Covered	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Valley and foothill grassland; Rocky, gabbroic or metavolcanic/perennial shrub/Mar–July/390–3,525	Not expected to occur. The site is outside of the species' known elevation range. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	None/None/1B.2/ None/None	Chaparral, Cismontane woodland/perennial evergreen shrub/Apr–June/95–2,590	Not expected to occur. No suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Convolvulus simulans	small-flowered morning-glory	None/None/4.2/ None/None	Chaparral (openings), Coastal scrub, Valley and foothill grassland; clay, serpentinite seeps/annual herb/Mar–July/95–2,425	Not expected to occur. There is suitable coastal scrub and grassland habitat present; however, there are no openings on-site. The closest known occurrence is approximately 2.0 miles east of the project site on the north side of Otay Valley (CCH 2020). A reference check was performed and small-flowered morning-glory was in full bloom. Small-flowered morning-glory was not observed during rare plant surveys in May.
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	None/None/1B.1/ None/None	Coastal bluff scrub, Chaparral, Coastal scrub/perennial herb/June–Sep/5–375	Not expected to occur. This species would have been observed during focused surveys. There is suitable coastal scrub present; however, there is no bluff scrub on-site. The closest known CNDDB occurrence is approximately 1.1 miles north of the project site along the south slope of Poggi Canyon (CDFW 2020).

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Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Cylindropuntia californica var. *californica*	snake cholla	None/None/1B.1/ Narrow Endemic/ Narrow Endemic	Chaparral, Coastal scrub/perennial stem succulent/Apr–May/95–490	Not expected to occur. There is suitable coastal scrub habitat present. The closest known CNDDB occurrence is approximately 0.6 mile north of the project site north of Palm Ave; however, the site has since been developed (CDFW 2020). Snake cholla was not observed during rare plant surveys in May.
Deinandra conjugens	Otay tarplant	FT/SE/1B.1/Narrow Endemic/Narrow Endemic	Coastal scrub, Valley and foothill grassland; clay/annual herb/(Apr)May–June/80–985	Observed on-site.
Deinandra floribunda	Tecate tarplant	None/None/1B.2/ None/None	Chaparral, Coastal scrub/annual herb/Aug–Oct/225–4,000	Not expected to occur. There is suitable coastal scrub and grassland habitat present. The closest known CNDDB occurrence is approximately 2.9 miles southeast of the project site within Otay Mesa (CDFW 2020). Tecate tarplant typically occurs in eastern San Diego county in dry washes. Tecate tarplant would be surveyed for during late season rare plant surveys.
Deinandra paniculata	paniculate tarplant	None/None/4.2/ None/None	Coastal scrub, Valley and foothill grassland, Vernal pools; usually vernally mesic, sometimes sandy/annual herb/(Mar)Apr–Nov(Dec)/80–3,080	Not expected to occur. This species would have been observed during focused surveys. There is suitable coastal scrub and grassland habitat present. The closest known occurrence is approximately 4.3 miles northwest of the project site near Los Flores (CCH 2020).

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Dichondra occidentalis	western dichondra	None/None/4.2/ None/None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/perennial rhizomatous herb/(Jan)Mar–July/160–1,640	Not expected to occur. There is suitable coastal scrub and grassland habitat present. The closest known occurrence is approximately 1.9 miles south of the project site within Moody Canyon (CCH 2020). However, western dichondra not observed during rare plant surveys in May.
Dicranostegia orcuttiana	Orcutt's bird's-beak	None/None/2B.1/ Covered/Covered	Coastal scrub/annual herb (hemiparasitic)/(Mar)Apr–July(Sep)/30–1,145	Not expected to occur. There is suitable coastal scrub habitat present. The closest known CNDDB occurrence is approximately 0.2 miles west of the project site within the Otay River drainage (CDFW 2020). However, Orcutt's bird's-beak was not observed during rare plant surveys in May.
Dudleya attenuata ssp. *attenuata*	Orcutt's dudleya	None/None/2B.1/ None/None	Coastal bluff scrub, Chaparral, Coastal scrub; rocky or gravelly/perennial herb/May–July/5–165	Not expected to occur. There is suitable coastal scrub and grassland habitat present; however, there is no bluff scrub on-site. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020). Orcutt's Dudleya was not observed during rare plant surveys in May.
Dudleya blochmaniae ssp. *blochmaniae*	Blochman's dudleya	None/None/1B.1/ None/None	Coastal bluff scrub, Chaparral, Coastal scrub, Valley and foothill grassland; rocky, often clay or serpentinite/perennial herb/Apr–June/15–1,475	Not expected to occur. There is suitable coastal scrub and grassland habitat present; however, there is no bluff scrub on-site. The closest known CNDDB occurrence is approximately 3.6 miles west of the project site near Imperial Beach (CDFW 2020). Blochman's Dudleya was not observed during rare plant surveys in May.

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Dudleya variegata	variegated dudleya	None/None/1B.2/ Narrow Endemic/ Narrow Endemic	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/perennial herb/Apr–June/5–1,900	Not expected to occur. There is suitable coastal scrub habitat present. The closest known CNDDB occurrence is approximately 0.1 mile south of the project site (CDFW 2020). Variegated dudleya was not observed during rare plant surveys in May.
Dudleya viscida	sticky dudleya	None/None/1B.2/ Covered/Covered	Coastal bluff scrub, Chaparral, Cismontane woodland, Coastal scrub; rocky/perennial herb/May–June/30–1,800	Not expected to occur. There is suitable coastal scrub present; however, there is no bluff scrub or woodland on-site. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020). Sticky dudleya was not observed during rare plant surveys in May.
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	None/None/1B.1/ Narrow Endemic/Covered	Chaparral, Coastal scrub; mesic/perennial evergreen shrub/(July)Sep–Nov/95–1,965	Not expected to occur. This species would have been observed during focused surveys. There is suitable coastal scrub present. The closest known CNDDB occurrence overlaps the eastern portion of the project site along the south flanks of Otay Valley recorded in 2002 (CDFW 2020).
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/SE/1B.1/MSCP/ Covered	Coastal scrub, Valley and foothill grassland, Vernal pools; mesic/annual / perennial herb/Apr–June/65–2,030	Not expected to occur. There is suitable coastal scrub and grassland habitat present. The closest known CNDDB occurrence is approximately 1.3 miles southeast of the project site within Otay Mesa between Dennery Canyon and Avenida de las Vistas (CDFW 2020). Mesic meadows and vernal pools are not present within the study area. Rare plant surveys were performed in May and San Diego button-celery was not observed.

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Erysimum ammophilum	sand-loving wallflower	None/None/1B.2/ Covered/Covered	Chaparral (maritime), Coastal dunes, Coastal scrub; sandy, openings/perennial herb/Feb–June/0–195	Not expected to occur. There is suitable coastal scrub present; however, there are no coastal dunes on-site. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020). Sand-loving wallflower was not observed during rare plant surveys in May.
Euphorbia misera	cliff spurge	None/None/2B.2/ None/None	Coastal bluff scrub, Coastal scrub, Mojavean desert scrub; rocky/perennial shrub/Dec–Aug(Oct)/30–1,640	Not expected to occur. There is suitable scrub habitat present; however, there is no bluff scrub on-site. The closest known CNDDB occurrence is approximately 0.3 miles east of the project site along a ridge south of Otay River Valley (CDFW 2020). Cliff spurge was not observed during rare plant surveys in May. Cliff spurge can be observed easily all year round.
Ferocactus viridescens var. *viridescens*	San Diego barrel cactus	None/None/2B.1/ Covered/Covered	Chaparral, Coastal scrub, Valley and foothill grassland, Vernal pools/perennial stem succulent/May–June/5–1,475	Observed on-site.
Frankenia palmeri	Palmer's frankenia	None/None/2B.1/ None/None	Coastal dunes, Marshes and swamps (coastal salt), Playas/perennial herb/May–July/0–35	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 4.7 miles west of the project site along the bay side of Silver Strand Beach State Park (CDFW 2020).

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Fremontodendron mexicanum	Mexican flannelbush	FE/SR/1B.1/None/ None	Closed-cone coniferous forest, Chaparral, Cismontane woodland; gabbroic, metavolcanic, or serpentinite/perennial evergreen shrub/Mar–June/30–2,345	Not expected to occur. No suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Galium proliferum	desert bedstraw	None/None/2B.2/ None/None	Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland; rocky, carbonate (limestone)/annual herb/Mar–June/3,900–5,345	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. The closest known CNDDB occurrence is approximately 4.7 miles northeast of the project site within Long Canyon (CDFW 2020).
Geothallus tuberosus	Campbell's liverwort	None/None/1B.1/ None/None	Coastal scrub (mesic), Vernal pools; soil/ephemeral liverwort/N.A./30–1,965	Not expected to occur. There is suitable coastal scrub habitat present. The closest known CNDDB occurrence is approximately 3.4 miles north of the project site along a north facing slope in Rice Canyon (CDFW 2020). Campbell's liverwort is typically associated with vernal pool and mesic areas. Cyrptogamic crusts typically occur with this species. Areas with potential for cryptogamic crusts had mostly been disturbed by non-native annual grasses.
Grindelia hallii	San Diego gumplant	None/None/1B.2/ None/None	Chaparral, Lower montane coniferous forest, Meadows and seeps, Valley and foothill grassland/perennial herb/May–Oct/605–5,725	Not expected to occur. The site is outside of the species' known elevation range. The closest known CNDDB occurrence is approximately 1.0 mile south of the project site in Otay Mesa; however, the record is from 1935 and the occurrences needs field checking (CDFW 2020).

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Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Harpagonella palmeri	Palmer's grapplinghook	None/None/4.2/ None/None	Chaparral, Coastal scrub, Valley and foothill grassland; Clay; open grassy areas within shrubland/annual herb/Mar–May/65–3,130	Not expected to occur. There is suitable coastal scrub and grassland habitat present; however, there are no open areas on-site. The closest known CNDDB occurrence is approximately 3.2 miles east of the project site north of Brown Field Naval Auxiliary Air Station (CDFW 2020). A reference check was performed for Palmer's grapplinghook and it was in full bloom in May when these surveys were performed. Palmer's grapplinghook was not observed during rare plant surveys in May.
Hesperocyparis forbesii	Tecate cypress	None/None/1B.1/ Covered/Covered	Closed-cone coniferous forest, Chaparral; clay, gabbroic or metavolcanic/perennial evergreen tree/N.A./260–4,920	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 2.1 miles east of the project site along the north slope of Otay Valley at the mouth of Wolf Canyon (CDFW 2020).
Heterotheca sessiliflora ssp. *sessiliflora*	beach goldenaster	None/None/1B.1/ None/None	Chaparral (coastal), Coastal dunes, Coastal scrub/perennial herb/Mar–Dec/0–4,015	Not expected to occur. There is suitable coastal scrub present; however, there are no coastal dunes on-site. The closest known CNDDB occurrence is approximately 2.1 miles south of the project site within Beyer Community Park (CDFW 2020). Beach goldenaster was not observed during rare plant surveys in May.

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Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Holocarpha virgata ssp. *elongata*	graceful tarplant	None/None/4.2/None/None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/annual herb/May–Nov/195–3,605	Not expected to occur. This species would have been observed during focused surveys. There is suitable coastal scrub and grassland habitat present; however, there is no woodland on-site. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020; CCH 2020).
Hordeum intercedens	vernal barley	None/None/3.2/ None/None	Coastal dunes, Coastal scrub, Valley and foothill grassland (saline flats and depressions), Vernal pools/annual herb/Mar–June/15–3,280	Not expected to occur. There is suitable coastal scrub present; however, there are no grassland saline flats or coastal dunes on-site. The closest known occurrence is approximately 1.2 miles east of the project site along the south side of Otay River (CCH 2020). Vernal barley was not observed during rare plant surveys in May.
Hosackia crassifolia var. *otayensis*	Otay Mountain lotus	None/None/1B.1/ None/None	Chaparral (metavolcanic, often in disturbed areas)/perennial herb/May–Aug/1,245–3,295	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Isocoma menziesii var. *decumbens*	decumbent goldenbush	None/None/1B.2/ None/None	Chaparral, Coastal scrub (sandy, often in disturbed areas)/perennial shrub/Apr–Nov/30–445	Not expected to occur. There is suitable coastal scrub present. The closest known CNDDB occurrence is approximately 1.4 miles southeast of the project site within an upland vernal pool complex northeast of the intersection of Ocean View Hills Parkway and Otay Mesa Road (CDFW 2020). Decumbent goldenbush was not observed during rare plant surveys in May.

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Iva hayesiana	San Diego marsh-elder	None/None/2B.2/ None/None	Marshes and swamps, Playas/perennial herb/Apr–Oct/30–1,640	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 0.2 miles west of the project site within riparian scrub in Otay Valley (CDFW 2020). San Diego marsh elder was not observed during rare plant surveys in May.
Juncus acutus ssp. *leopoldii*	southwestern spiny rush	None/None/4.2/None/None	Coastal dunes (mesic), Meadows and seeps (alkaline seeps), Marshes and swamps (coastal salt)/perennial rhizomatous herb/(Mar)May–June/5–2,950	Not expected to occur. No suitable vegetation present. The closest known occurrence is approximately 1.6 miles east of the project site along Otay River (CCH 2020). Southwestern Spiny rush was not observed during rare plant surveys in May.
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None/1B.1/ None/None	Marshes and swamps (coastal salt), Playas, Vernal pools/annual herb/Feb–June/0–4,000	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 4.8 miles southwest of the project site within Tijuana Valley (CDFW 2020). A reference check was performed for Coulter's goldfields. Coulter's goldfields were not observed during rare plant surveys in May.
Lepechinia ganderi	Gander's pitcher sage	None/None/1B.3/ Narrow Endemic/ Covered	Closed-cone coniferous forest, Chaparral, Coastal scrub, Valley and foothill grassland; Gabbroic or metavolcanic/perennial shrub/June–July/1,000–3,295	Not expected to occur. The site is outside of the species' known elevation range. There are no known occurrences within 5 miles of the project site (CDFW 2020).

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Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None/None/4.3/None/None	Chaparral, Coastal scrub/annual herb/Jan–July/0–2,900	Not expected to occur. There is suitable coastal scrub present. The closest known CNDDB occurrence is approximately 0.9 mile west of the project site along Otay Valley Road (CDFW 2020). Robinson's pepper grass was not observed during rare plant surveys in May.
Leptosyne maritima	sea dahlia	None/None/2B.2/ None/None	Coastal bluff scrub, Coastal scrub/perennial herb/Mar–May/15–490	Not expected to occur. There is suitable coastal scrub present; however, there is no bluff scrub on-site. The closest known CNDDB occurrence is approximately 4.1 miles southwest of the project site within Tijuana River Valley Regional Park (CDFW 2020). A rare plant reference check was performed for sea dahlia. Sea dahlia was not observed during rare plant surveys in May.
Lilium humboldtii ssp. *ocellatum*	ocellated Humboldt lily	None/None/4.2/None/None	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland; openings/perennial bulbiferous herb/Mar–July(Aug)/95–5,905	Not expected to occur. There is suitable coastal scrub present; however, there is no woodland or forest on-site. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020; CCH 2020). Ocellated Humboldt lily was not observed during rare plant surveys in May.
Lycium californicum	California box-thorn	None/None/4.2/None/None	Coastal bluff scrub, Coastal scrub/perennial shrub/ (Dec)Mar,June,July,Aug/15–490	Not expected to occur. There is suitable coastal scrub present; however, there is no bluff scrub on-site. The closest known occurrence is approximately 1.4 miles west of the project site along Otay River (CCH 2020). California box-thorn was not observed during rare plant surveys in May. California box thorn can be easily observed year-round.

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Microseris douglasii ssp. *platycarpha*	small-flowered microseris	None/None/4.2/None/None	Cismontane woodland, Coastal scrub, Valley and foothill grassland, Vernal pools; clay/annual herb/Mar–May/45–3,510	Observed on-site.
Mobergia calculiformis	light gray lichen	None/None/3/None/ None	Coastal scrub (?); On rocks/crustose lichen (saxicolous)/N.A./30–35	Low potential to occur. There is suitable coastal scrub present; however, there are no rocks on-site. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020; CCH 2020). Cryptogamic crusts are limited on-site due to invasion of many non-natives to the site.
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	None/None/1B.2/ Narrow Endemic/ Covered	Chaparral, Cismontane woodland/perennial rhizomatous herb/June–Aug/980–5,165	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Monardella stoneana	Jennifer's monardella	None/None/1B.2/ None/None	Closed-cone coniferous forest, Chaparral, Coastal scrub, Riparian scrub; usually rocky intermittent streambeds/ perennial herb/June–Sep/30–2,590	Low potential to occur. There is suitable coastal scrub and riparian scrub present; however, there is no rocky intermittent streambed on-site. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020).

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Monardella viminea	willowy monardella	FE/SE/1B.1/Narrow Endemic/Covered	Chaparral, Coastal scrub, Riparian forest, Riparian scrub, Riparian woodland; alluvial ephemeral washes/perennial herb/June–Aug/160–740	Not expected to occur. There is suitable coastal scrub and riparian scrub present; however, there are no alluvial ephemeral washes on-site. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020). However, a late season rare plant survey will be performed for willowy monardella.
Mucronea californica	California spineflower	None/None/4.2/None/None	Chaparral, Cismontane woodland, Coastal dunes, Coastal scrub, Valley and foothill grassland; sandy/annual herb/Mar–July(Aug)/0–4,590	Not expected to occur. There is suitable coastal scrub and grassland habitat present; however, there are no coastal dunes on-site. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020; CCH 2020). California spineflower was not observed during rare plant surveys during May.
Myosurus minimus ssp. *apus*	little mousetail	None/None/3.1/None/None	Valley and foothill grassland, Vernal pools (alkaline)/annual herb/Mar–June/65–2,095	Low potential to occur. There is suitable grassland habitat present; however, there is no alkaline soil on-site. The closest known CNDDB occurrence is approximately 1.8 miles southeast of the project site east of the head of Dennery Canyon (CDFW 2020). No vernal pools are present on-site. Little mousetail was not observed during rare plant surveys in May.
Nama stenocarpa	mud nama	None/None/2B.2/ None/None	Marshes and swamps (lake margins, riverbanks)/annual / perennial herb/Jan–July/15–1,640	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 1.0 mile southeast of the project site in Otay Mesa mapped in 2005; however, the exact location is unknown (CDFW 2020).

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Navarretia fossalis	spreading navarretia	FT/None/1B.1/MSCP/ Narrow Endemic	Chenopod scrub, Marshes and swamps (assorted shallow freshwater), Playas, Vernal pools/annual herb/Apr–June/95–2,145	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 1.2 miles southeast of the project site west of Dennery Canyon (CDFW 2020).
Navarretia prostrata	prostrate vernal pool navarretia	None/None/1B.2/ None/None	Coastal scrub, Meadows and seeps, Valley and foothill grassland (alkaline), Vernal pools; Mesic/annual herb/Apr–July/5–3,965	Low potential to occur. There is suitable coastal scrub present; however, there is no alkaline soil on-site. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Nemacaulis denudata var. *denudata*	coast woolly-heads	None/None/1B.2/ None/None	Coastal dunes/annual herb/Apr–Sep/0–330	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 4.2 miles northwest of the project site within the Chula Vista Wildlife Reserve in southeast San Diego Bay (CDFW 2020).
Nemacaulis denudata var. *gracilis*	slender cottonheads	None/None/2B.2/ None/None	Coastal dunes, Desert dunes, Sonoran desert scrub/annual herb/(Mar)Apr–May/-,165–1,310	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 1.6 miles south of the project site along the Tijuana River (CDFW 2020).
Ophioglossum californicum	California adder's-tongue	None/None/4.2/None/ None	Chaparral, Valley and foothill grassland, Vernal pools (margins); mesic/perennial rhizomatous herb/(Dec)Jan–June/195–1,720	Not expected to occur. There is suitable grassland habitat present. The closest known occurrence is approximately 4.0 miles north of the project site within Rice Canyon (CCH 2020). California adder's tongue was not observed during rare plant surveys in May. The site has limited cryptogamic crusts which is the typical habitat of California adder's tongue.

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Orcuttia californica	California Orcutt grass	FE/SE/1B.1/MSCP/ Narrow Endemic	Vernal pools/annual herb/Apr–Aug/45–2,165	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 1.6 miles southeast of the project site near the headwaters of Dennery Canyon (CDFW 2020).
Ornithostaphylos oppositifolia	Baja California birdbush	None/SE/2B.1/None/ None	Chaparral/perennial evergreen shrub/Jan–Apr/180–2,620	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 4.0 miles southwest of the project site along the U.S./Mexico International Border (CDFW 2020).
Orobanche parishii ssp. *brachyloba*	short-lobed broomrape	None/None/4.2/None/None	Coastal bluff scrub, Coastal dunes, Coastal scrub; sandy/perennial herb (parasitic)/Apr–Oct/5–1,000	Not expected to occur. There is suitable coastal scrub present; however, there are no coastal dunes or bluff scrub on-site. The closest known CNDDB occurrence is approximately 4.7 miles northwest of the project site along the Coronado Peninsula at Silver Strand State Park (CDFW 2020). Short-lobed broomrape was not observed during rare plant surveys in May.
Pentachaeta aurea ssp. *aurea*	golden-rayed pentachaeta	None/None/4.2/None/None	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Riparian woodland, Valley and foothill grassland/annual herb/Mar–July/260–6,065	Not expected to occur. There is suitable coastal scrub and grassland habitat present; however, there is no woodland or forest habitat on-site. There are no known occurrences within 5 miles of the project site (CDFW 2020; CCH 2020). Golden-rayed pentachaeta was not observed during rare plant surveys in May.

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Phacelia stellaris	Brand's star phacelia	None/None/1B.1/ None/None	Coastal dunes, Coastal scrub/annual herb/Mar–June/0–1,310	Not expected to occur. There is suitable coastal scrub present; however, there are no coastal dunes on-site. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020). Brand's star phacelia was not observed during rare plant surveys in May.
Pickeringia montana var. *tomentosa*	woolly chaparral-pea	None/None/4.3/None/None	Chaparral; Gabbroic, granitic, clay/evergreen shrub/May–Aug/0–5,575	Not expected to occur. No suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020; CCH 2020).
Piperia cooperi	chaparral rein orchid	None/None/4.2/None/None	Chaparral, Cismontane woodland, Valley and foothill grassland/perennial herb/Mar–June/45–5,200	Not expected to occur. There is suitable grassland habitat present; however, there are no woodlands on-site. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020; CCH 2020). Chaparral rein orchid was not observed during rare plant surveys in May.
Pogogyne abramsii	San Diego mesa mint	FE/SE/1B.1/None/ Narrow Endemic	Vernal pools/annual herb/Mar–July/295–655	Not expected to occur. No suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Pogogyne nudiuscula	Otay Mesa mint	FE/SE/1B.1/MSCP/ Narrow Endemic	Vernal pools/annual herb/May–July/295–820	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 1.6 miles southeast of the project site north of Otay Mesa Road (CDFW 2020).

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Quercus dumosa	Nuttall's scrub oak	None/None/1B.1/ None/None	Closed-cone coniferous forest, Chaparral, Coastal scrub; sandy, clay loam/perennial evergreen shrub/Feb–Apr(May–Aug)/45–1,310	Not expected to occur. There is suitable coastal scrub and sandy, clay loam soil present. The closest known CNDDB occurrence is approximately 1.0 mile southeast of the project site at the head of a tributary of Dennery Canyon (CDFW 2020). Nuttall's scrub oak was not observed during rare plant surveys in May.
Quercus engelmannii	Engelmann oak	None/None/4.2/None/None	Chaparral, Cismontane woodland, Riparian woodland, Valley and foothill grassland/perennial deciduous tree/Mar–June/160–4,265	Not expected to occur. No suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020; CCH 2020).
Ribes viburnifolium	Santa Catalina Island currant	None/None/1B.2/ None/None	Chaparral, Cismontane woodland/perennial evergreen shrub/Feb–Apr/95–1,145	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 4.9 miles southwest of the project site along the side of Goat Canyon (CDFW 2020).
Romneya coulteri	Coulter's matilija poppy	None/None/4.2/None/None	Chaparral, Coastal scrub; Often in burns/perennial rhizomatous herb/Mar–July(Aug)/65–3,935	Not expected to occur. There is suitable coastal scrub present. The closest known occurrence is approximately 4.3 miles north of the project site within Sweetwater Valley (CCH 2020). Coulter's matilaja poppy was not observed during rare plant surveys in May.
Rosa minutifolia	small-leaved rose	None/SE/2B.1/None/ Covered	Chaparral, Coastal scrub/perennial deciduous shrub/Jan–June/490–525	Not expected to occur. The site is outside of the species' known elevation range. The closest known CNDDB occurrence is approximately 0.6 miles south of the project site within Otay Valley Regional Park (CDFW 2020).

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Salvia munzii	Munz's sage	None/None/2B.2/ None/None	Chaparral, Coastal scrub/perennial evergreen shrub/Feb–Apr/375–3,490	Not expected to occur. The site is outside of the species' known elevation range. The closest known CNDDB occurrence is approximately 4.7 miles east of the project site between Johnson Canyon and O'Neal Canyon (CDFW 2020).
Selaginella cinerascens	ashy spike-moss	None/None/4.1/None/None	Chaparral, Coastal scrub/perennial rhizomatous herb/N.A./65–2,095	Observed on-site.
Senecio aphanactis	chaparral ragwort	None/None/2B.2/ None/None	Chaparral, Cismontane woodland, Coastal scrub; sometimes alkaline/annual herb/Jan–Apr(May)/45–2,620	Not expected to occur. There is suitable coastal scrub present; however, there is no woodland or alkaline soil on-site. The closest known CNDDB occurrence is approximately 4.7 miles northwest of the project site within Silver Strand State Park (CDFW 2020). Chaparral ragwort was not observed during rare plant surveys in May.
Solanum xanti	Purple nightshade	None/None/None/ MSCP/Covered	Coastal scrub, chaparral, cismontane woodland, lower montane coniferous forest/perennial herb / perennial shrub/June–July/0–8,855	Not expected to occur. This species does not have a CRPR rank (CNPS 2020) and is not known to occur within the vicinity (CDFW 2020).
Sphaerocarpos drewei	bottle liverwort	None/None/1B.1/ None/None	Chaparral, Coastal scrub; openings, soil/ephemeral liverwort/N.A./295–1,965	Not expected to occur. There is suitable coastal scrub present; however, there are no openings on-site. Additionally, there are no known occurrences within 5 miles of the project site (CDFW 2020). Many of the cryptogamic crusts on-site are heavily disturbed by non-native annual grasses.

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Stemodia durantifolia	purple stemodia	None/None/2B.1/ None/None	Sonoran desert scrub (often mesic, sandy)/perennial herb/(Jan)Apr,June,Aug,Sep,Oct, Dec/590–985	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. The closest known CNDDB occurrence overlaps the project site recorded in 1928; however, the location information is vague and needs field work checking (CDFW 2020).
Stipa diegoensis	San Diego County needle grass	None/None/4.2/None/None	Chaparral, Coastal scrub; rocky, often mesic/perennial herb/Feb–June/30–2,620	Not expected to occur. There is suitable coastal scrub present. The closest known occurrence is approximately 0.9 miles northeast of the project site northwest of Otay landfill (CCH 2020). San Diego county needlegrass was not observed during rare plant surveys in May.
Streptanthus bernardinus	Laguna Mountains jewelflower	None/None/4.3/None/None	Chaparral, Lower montane coniferous forest/perennial herb/May–Aug/2,195–8,200	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. The closest known CNDDB occurrence is approximately 0.6 mile east of the project site within the vicinity of Upper and Lower Otay Lakes; however, the exact location is unknown (CDFW 2020).
Stylocline citroleum	oil neststraw	None/None/1B.1/ None/None	Chenopod scrub, Coastal scrub, Valley and foothill grassland; clay/annual herb/Mar–Apr/160–1,310	Not expected to occur. There is suitable coastal scrub and grassland habitat present. However, there are no known occurrences within 5 miles of the project site (CDFW 2020). Oil neststraw was not observed during rare plant surveys in May.

Attachment 9 Special-Status Plant Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/CRPR/ MSCP Chula Vista/ San Diego MSCP)	Primary Habitat Associations/ Life Form/Blooming Period/ Elevation Range (feet amsl)	Potential to Occur
Suaeda esteroa	estuary seablite	None/None/1B.2/ None/None	Marshes and swamps (coastal salt)/perennial herb/(May)July–Oct(Jan)/0–15	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 3.9 miles northwest of the project site near the mouth of Telegraph Canyon (CDFW 2020).
Tetracoccus dioicus	Parry's tetracoccus	None/None/1B.2/ Covered/Covered	Chaparral, Coastal scrub/perennial deciduous shrub/Apr–May/540–3,280	Not expected to occur. The site is outside of the species' known elevation range. The closest known CNDDB occurrence is approximately 0.6 mile east of the project site near the vicinity of Otay Mesa and the San Ysidro Mountains; however, the exact location is unknown (CDFW 2020).
Tortula californica	California screw-moss	None/None/1B.2/ None/None	Chenopod scrub, Valley and foothill grassland; sandy, soil/moss/N.A./30–4,790	Not expected to occur. There is suitable grassland habitat present. However, there are no known occurrences within 5 miles of the project site (CDFW 2020). Cryptogamic crusts are limited on-site due to non-native annual grasses dominated areas with potential for cryptogamic crusts.
Viguiera laciniata	San Diego County viguiera	None/None/4.3/None/ None	Chaparral, Coastal scrub/perennial shrub/Feb–June (Aug)/195–2,460	Observed on-site.

Attachment 9
Special-Status Plant Species Potential to Occur within the Project Area

CRPR = California Rare Plant Rank; MSCP = Multiple Species Conservation Program; amsl = above mean sea level; CNDDB = California Natural Diversity Database. Vicinity refers to Imperial Beach USGS 7.5-minute quadrangle and surrounding quadrangles, including Point Loma, National City, Jamul Mountains, and Otay Mesa (CDFW 2020).

Status Designations

The federal and state status of species primarily is based on the Special Animals List (August 2019), California Department of Fish and Wildlife.

Federal Designations:

FE: Federally Endangered
FT: Federally Threatened

State Designations:

SE: State Endangered
SR: State Rare
CRPR Ranking:

- CRPR 1A: Plants presumed extirpated in California and either rare or extinct elsewhere
- CRPR 1B: Plants rare, threatened, or endangered in California and elsewhere
- CRPR 2A: Plants presumed extirpated in California but common elsewhere
- CRPR 2B: Plants rare, threatened, or endangered in California but more common elsewhere
- CRPR 3: Review List: Plants about which more information is needed
- CRPR 4: Watch List: Plants of limited distribution
  - .1 Seriously threatened in California (over 80% of occurrences threatened / high degree and immediacy of threat)
  - .2 Moderately threatened in California (20-80% occurrences threatened / moderate degree and immediacy of threat)
  - .3 Not very threatened in California (<20% of occurrences threatened / low degree and immediacy of threat or no current threats known)

MSCP Designations:

MSCP Chula Vista (City of Chula Vista 2003): City of Chula Vista MSCP Subarea Plan species with known occurrences or suitable habitat within the Chula Vista Subarea (*Chula Vista Subarea Plan Covered Species* Table 4-2)
San Diego MSCP: San Diego Land Development Code Biology Guidelines (City of San Diego 2018)

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2003 *City of Chula Vista MSCP Subarea Plan*. February 2003.

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ATTACHMENT 10

Special-Status Wildlife Species Potential to Occur within the Project Area

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
AMPHIBIANS				
Anaxyrus californicus	arroyo toad	FE/SSC/Covered/Covered	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Not expected to occur. The site is outside of the species' known geographic range, and the riparian habitats on-site are densely vegetated and lack suitable sandy banks for breeding. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Spea hammondii	western spadefoot	None/SSC/None/None	Primarily grassland and vernal pools, but also in ephemeral wetlands that persist at least 3 weeks in chaparral, coastal scrub, valley–foothill woodlands, pastures, and other agriculture	Low potential to occur. There is grassland present; however, it is highly disturbed and no suitable ephemeral wetland habitat was observed during surveys. The closest known CNDDB occurrence is approximately 1.8 miles southeast of the project site within the Dennery Canyon Vernal Pool Reserve (CDFW 2020).
REPTILES				
Actinemys pallida	southwestern pond turtle	None/SSC/Covered/Covered	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable habitat present. This species is not known to occur within the vicinity (CDFW 2020).
Anniella stebbinsi	southern California legless lizard	None/SSC/None/None	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Low potential to occur. The site is highly disturbed and lacks coastal dunes, beaches, dry washes, and moist sandy soils. The closest known CNDDB occurrence is approximately 1.3 miles north of the project site along the south site of Melrose Avenue (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Arizona elegans occidentalis	California glossy snake	None/SSC/None/None	Commonly occurs in desert regions throughout Southern California. Prefers open sandy areas with scattered brush; also found in rocky areas	Low potential to occur. The site is highly disturbed lacks open sandy areas with scattered brush. The closest known CNDDB occurrence is approximately 0.7 mile west of the project site mapped within the vicinity of Otay in 1946 (CDFW 2020).
Aspidoscelis hyperythra	orange-throated whiptail	None/WL/Covered/Covered	Low-elevation coastal scrub, chaparral, and valley–foothill hardwood	Moderate potential to occur. There is suitable coastal scrub present; however, the majority of the site is highly disturbed. The closest known CNDDB occurrence is approximately 0.3 miles south of the project site east of I-805 and south of Palm Avenue (CDFW 2020).
Aspidoscelis tigris stejnegeri	San Diegan tiger whiptail	None/SSC/None/None	Hot and dry areas with sparse foliage, including chaparral, woodland, and riparian areas	Moderate potential to occur. There is suitable riparian and scrub habitat present; however, the majority of the site is highly disturbed and lacks sparse foliage. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Chelonia mydas	green sea turtle	FT/None/None/None	Shallow waters of lagoons, bays, estuaries, mangroves, eelgrass, and seaweed beds	Not expected to occur. No suitable habitat present. The closest known CNDDB occurrence is approximately 3.9 miles northwest of the project site within south San Diego Bay (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Crotalus ruber	red diamond rattlesnake	None/SSC/None/None	Coastal scrub, chaparral, oak and pine woodlands, rocky grasslands, cultivated areas, and desert flats	Low potential to occur. There is suitable coastal scrub present; however, it is limited in size and the majority of the site is highly disturbed. The closest known CNDDB occurrence is approximately 1.0 mile north of the project site within Poggi Canyon (CDFW 2020).
Masticophis fuliginosus	Baja California coachwhip	None/SSC/None/None	In California restricted to southern San Diego County, where it is known from grassland and coastal sage scrub; open areas in grassland and coastal sage scrub	Not expected to occur. The site is outside of the species' known geographic range. The closest known CNDDB occurrence is approximately 0.7 miles west of the project site in Otay, recorded in 1936 (CDFW 2020).
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC/Covered/Covered	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	Low potential to occur. There is some suitable coastal scrub habitat present; however, it's limited in size and the site lacks open areas of sandy soil. The closest known CNDDB occurrence is approximately 1.6 miles south of the project site and south of Otay Mesa Road (CDFW 2020).
Plestiodon skiltonianus interparietalis	Coronado skink	None/WL/None/None	Woodlands, grasslands, pine forests, and chaparral; rocky areas near water	Low potential to occur. There is grassland present; however, it's highly disturbed and the site lacks rocky areas near water. The closest known CNDDB occurrence is approximately 3.7 miles southwest of the project site along the north side of Tijuana River (CDFW 2020).
Salvadora hexalepis virgultea	coast patch-nosed snake	None/SSC/None/None	Brushy or shrubby vegetation; requires small mammal burrows for refuge and overwintering sites	Not expected to occur. The site is outside of the species' known geographic range. There are no known occurrences within 5 miles of the project site (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Thamnophis hammondii	two-striped gartersnake	None/SSC/None/None	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Not expected to occur. The Otay River may provide suitable habitat for this species, but there is no suitable habitat within the site. The closest known CNDDB occurrence is approximately 3.7 miles southwest of the project site along the north side of Tijuana River (CDFW 2020).
BIRDS				
Accipiter cooperii (nesting)	Cooper's hawk	None/WL/Covered/Covered	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Moderate potential to nest and forage within the southern willow scrub or southern riparian scrub on site. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, ST/Covered/Covered	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberrry; forages in grasslands, woodland, and agriculture	Not expected to occur. No suitable nesting habitat present. The closest known CNDDB occurrence is approximately 0.9 mile north of the project site north or Otay River in Chula Vista (CDFW 2020).
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL/Covered/Covered	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Low potential to occur. There is limited suitable coastal scrub and the grassland present is highly disturbed. Species not observed during surveys. The closest known CNDDB occurrence is approximately 1.8 miles northeast of the project site along the west slope of Wolf Canyon (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Aquila chrysaetos (nesting & wintering)	golden eagle	BCC/FP, WL/Covered/Covered	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	Not expected to occur. This species is not known to occur within the vicinity (CDFW 2020).
Artemisiospiza belli belli	Bell's sage sparrow	BCC/WL/None/None	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	Low potential to occur. There is suitable coastal scrub present; however, it's limited in size and adjacent to existing development. This species was not observed during surveys. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Athene cunicularia (burrow sites & some wintering sites)	burrowing owl	BCC/SSC/Covered/Covered	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Moderate potential to forage in suitable open habitats; however, low potential for nesting sue to lack of suitable burrows. The closest known CNDDB occurrence is approximately 2.9 miles southeast of the project site southeast of the intersection of Otay Mesa Road and Cactus Road (CDFW 2020).
Buteo regalis (wintering)	ferruginous hawk	BCC/WL/None/None	Winters and forages in open, dry country, grasslands, open fields, agriculture	Not expected to occur. This species is not known to occur within the vicinity (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Buteo swainsoni (nesting)	Swainson's hawk	BCC/ST/None/None	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Not expected to nest; low potential to forage in grassland habitat present. The site is limited in size, adjacent to existing development and I-805, and is highly disturbed. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Campylorhynchus brunneicapillus sandiegensis (San Diego & Orange Counties only)	coastal cactus wren	BCC/SSC/Covered/Covered	Southern cactus scrub patches	Low potential to occur. The site lacks suitable large patches of cactus scrub. The closest known CNDDB occurrence overlaps the southeast corner of the project site recorded in 1988 (CDFW 2020).
Charadrius alexandrinus nivosus (nesting)	western snowy plover	FT, BCC/SSC/Covered/Covered	On coasts nests on sandy marine and estuarine shores; in the interior nests on sandy, barren or sparsely vegetated flats near saline or alkaline lakes, reservoirs, and ponds	Not expected to occur. No suitable habitat present. The closest known CNDDB occurrence is approximately 3.2 miles west of the project site near San Diego Bay (CDFW 2020).
Circus hudsonius (nesting)	northern harrier	None/SSC/Covered/Covered	Nests in open wetlands (marshy meadows, wet lightly-grazed pastures, old fields, freshwater and brackish marshes); also in drier habitats (grassland and grain fields); forages in grassland, scrubs, rangelands, emergent wetlands, and other open habitats	Not expected to nest, low potential to forage in grassland or scrub habitat. The site is highly disturbed, lacks marshy wetlands, and occurs adjacent to existing development. The closest known CNDDB occurrence is approximately 4.8 miles southeast of the project site north of Otay Mesa Road (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT, BCC/SE/None/None	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present. The closest known CNDDB occurrence is approximately 3.9 miles north of the project site along Sweetwater River near Bonita (CDFW 2020).
Coturnicops noveboracensis	yellow rail	BCC/SSC/None/None	Nesting requires wet marsh/sedge meadows or coastal marshes with wet soil and shallow, standing water	Not expected to occur. No suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE/SE/Covered/Covered	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur. Though a willow flycatcher was observed during 2020 least Bell's vireo surveys that could not be identified to species, it is assumed that the individual identified was not the correct subspecies due to lack of suitable habitat. Nesting habitat is associated with large patches of well-developed riparian woodland 0.8 ha (2 ac) or greater with standing water or saturated soils; linear patches that are less than 10 m are not typically used for nesting (Sogge et al. 2010). In addition, breeding populations are restricted in San Diego County and are not known from the vicinity. There are no known occurrences within 5 miles of the project site (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Eremophila alpestris actia	California horned lark	None/WL/None/None	Nests and forages in grasslands, disturbed lands, agriculture, and beaches; nests in alpine fell fields of the Sierra Nevada	Low potential to occur. Grassland is present; however, the site is limited in size and adjacent to existing development, including I-805. Species not observed during surveys. The closest known CNDDB occurrence is approximately 3.1 miles southeast of the project site in Otay Mesa (CDFW 2020).
Falco peregrinus anatum (nesting)	American peregrine falcon	FDL, BCC/FP, SDL/Covered/Covered	Nests on cliffs, buildings, and bridges; forages in wetlands, riparian, meadows, croplands, especially where waterfowl are present	Not expected to occur. No suitable nesting habitat present. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Haliaeetus leucocephalus (nesting & wintering)	bald eagle	FDL, BCC/FP, SE/None/None	Nests in forested areas adjacent to large bodies of water, including seacoasts, rivers, swamps, large lakes; winters near large bodies of water in lowlands and mountains	Not expected to occur. No suitable nesting habitat present. This species is not known to occur within the vicinity (CDFW 2020).
Icteria virens (nesting)	yellow-breasted chat	None/SSC/None/None	Nests and forages in dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush	Not expected to nest; low potential to forage within on-site riparian scrub. Observed outside of the project area, along Otay River during a focused riparian bird survey. The site lacks dense riparian woodlands. The closest known CNDDB occurrence is approximately 2.7 miles east of the project site southwest of Lower Otay Reservoir (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Laterallus jamaicensis coturniculus	California black rail	BCC/FP, ST/None/None	Tidal marshes, shallow freshwater margins, wet meadows, and flooded grassy vegetation; suitable habitats are often supplied by canal leakage in Sierra Nevada foothill populations	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 4.8 miles southwest of the project site near the mouth of the Tijuana River (CDFW 2020)
Pandion haliaetus (nesting)	osprey	None/WL/None/None	Large waters (lakes, reservoirs, rivers) supporting fish; usually near forest habitats, but widely observed along the coast	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 4.3 miles northwest of the project site near the Chula Vista Bayfront Park (CDFW 2020).
Passerculus sandwichensis beldingi	Belding's savannah sparrow	None/SE/Covered/Covered	Nests and forages in coastal saltmarsh dominated by pickleweed (Salicornia spp.)	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 3.3 miles west of the project site near the Otay River mouth (CDFW 2020).
Pelecanus occidentalis californicus (nesting colonies & communal roosts)	California brown pelican	FDL/FP, SDL/Covered/Covered	Forages in warm coastal marine and estuarine environments; in California, nests on dry, rocky offshore islands	Not expected to occur. No suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Phalacrocorax auritus (nesting colony)	double-crested cormorant	None/WL/None/None	Nests in riparian trees near ponds, lakes, artificial impoundments, slow-moving rivers, lagoons, estuaries, and open coastlines; winter habitat includes lakes, rivers, and coastal areas	Not expected to occur. No suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Plegadis chihi (nesting colony)	white-faced ibis	None/WL/Covered/Covered	Nests in shallow marshes with areas of emergent vegetation; winter foraging in shallow lacustrine waters, flooded agricultural fields, muddy ground of wet meadows, marshes, ponds, lakes, rivers, flooded fields, and estuaries	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present. This species is not known to occur within the vicinity (CDFW 2020).
Polioptila californica californica	coastal California gnatcatcher	FT/SSC/Covered/Covered	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	Observed within the coastal sage scrub within the southern portion of the site. There is suitable coastal scrub habitat present. One pair was observed during all three focused surveys for this species. The closest known CNDDB occurrence overlaps the southeast corner of the project site along the hills south of Otay River Valley (CDFW 2020).
Rallus obsoletus levipes	Ridgway's rail	FE/SE, FP/Covered/Covered	Coastal wetlands, brackish areas, coastal saline emergent wetlands	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 3.2 miles west of the project site within the San Diego Bay marshes (CDFW 2020).
Setophaga petechia (nesting)	yellow warbler	BCC/SSC/None/None	Nests and forages in riparian and oak woodlands, montane chaparral, open ponderosa pine, and mixed-conifer habitats	Observed foraging during focused riparian bird survey. Not expected to nest. The site lacks suitable riparian woodland nesting habitat. The closest known CNDDB occurrence is approximately 4.8 miles north of the project site along Sweetwater River corridor (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Sialia mexicana	western bluebird	None/None/Covered/Covered	Nests in old-growth red fir, mixed-conifer, and lodegpole pine habitats near wet meadows used for foraging	Observed foraging during focused riparian bird survey. Not expected to nest. No suitable nesting habitat present. This species is not known to occur within the vicinity (CDFW 2020).
Sternula antillarum browni (nesting colony)	California least tern	FE/FP, SE/Covered/Covered	Forages in shallow estuaries and lagoons; nests on sandy beaches or exposed tidal flats	Not expected to occur. No suitable nesting habitat present. The closest known CNDDB occurrence is approximately 3.9 miles west of the project site near salt pond dikes in south San Diego Bay (CDFW 2020).
Thalasseus elegans (nesting colony)	elegant tern	None/WL/Covered/Covered	Inshore coastal waters, bays, estuaries, and harbors; forages over open water	Not expected to occur. This species is not known to occur within the vicinity (CDFW 2020).
Vireo bellii pusillus (nesting)	least Bell's vireo	FE/SE/Covered/Covered	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Observed within the southern willow scrub just south of the site. One pair was observed foraging within the southern willow scrub during focused surveys. Two additional males were observed. There are multiple CNDDB occurrences within the Otay River approximately 0.04 mile north of the site.
FISHES				
Oncorhynchus mykiss irideus pop. 10	southern steelhead - southern California DPS	FE/None/None/None	Clean, clear, cool, well-oxygenated streams; needs relatively deep pools in migration and gravelly substrate to spawn	Not expected to occur. The site is outside of the species' known geographic range and there is no suitable vegetation present. The closest known CNDDB occurrence is approximately 2.6 miles south of the project site within the Tijuana River (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
MAMMALS				
Antrozous pallidus	pallid bat	None/SSC/None/None	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Not expected to roost; moderate potential to forage in grassland on site. The site lacks rocky outcrops, trees, and man-made structures suitable for roosting. The closest known CNDDB occurrence is approximately 2.4 miles southwest of the project site near Southwestern Jr. High School (CDFW 2020).
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None/SSC/None/None	Coastal scrub, mixed chaparral, sagebrush, desert wash, desert scrub, desert succulent shrub, pinyon–juniper, and annual grassland	Low potential to occur. There is very limited suitable coastal scrub, and the grassland present is highly disturbed. The closest known CNDDB occurrence is approximately 1.0 mile southeast of the project site south of Otay River (CDFW 2020).
Choeronycteris mexicana	Mexican long-tongued bat	None/SSC/None/None	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon–juniper woodland; roosts in caves, mines, and buildings	Not expected to roost; moderate potential to forage in riparian scrub on site. The site lacks caves, mines, and buildings suitable for roosting. The closest known CNDDB occurrence is approximately 3.6 miles west of the project site near Imperial Beach (CDFW 2020).
Corynorhinus townsendii	Townsend's big-eared bat	None/SSC/None/None	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Not expected to roost; low potential to forage in riparian habitat. The site lacks caves and man-made structures suitable for roosting. There are no known occurrences within 5 miles of the project site (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Eumops perotis californicus	western mastiff bat	None/SSC/None/None	Chaparral, coastal and desert scrub, coniferous and deciduous forest and woodland; roosts in crevices in rocky canyons and cliffs where the canyon or cliff is vertical or nearly vertical, trees, and tunnels	Not expected to roost; moderate potential to forage in scrub habitat on site. The closest known CNDDB occurrence is approximately 1.1 miles west of the project site in Otay (CDFW 2020).
Lasiurus blossevillii	western red bat	None/SSC/None/None	Forest, woodland, riparian, mesquite bosque, and orchards, including fig, apricot, peach, pear, almond, walnut, and orange; roosts in tree canopy	Not expected to occur. The site is highly disturbed and lacks woodland and orchard habitat. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Lasiurus xanthinus	western yellow bat	None/SSC/None/None	Valley–foothill riparian, desert riparian, desert wash, and palm oasis habitats; below 2,000 feet above mean sea level; roosts in riparian and palms	Not expected to occur. The site is highly disturbed within very limited riparian scrub and occurs adjacent to existing development, including I-805. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/SSC/None/None	Arid habitats with open ground; grasslands, coastal scrub, agriculture, disturbed areas, and rangelands	Low potential to occur. The site is highly disturbed within very limited suitable habitat for this species and occurs adjacent to existing development, including I-805. The closest known CNDDB occurrence is approximately 1.6 miles northeast of the project site along the western slope of Wolf Canyon (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Neotoma lepida intermedia	San Diego desert woodrat	None/SSC/None/None	Coastal scrub, desert scrub, chaparral, cacti, rocky areas	Not expected to occur. There is very limited suitable coastal scrub habitat present and the site is adjacent to existing development, including I-805. No woodrat middens were observed during surveys within the coastal sage scrub. The closest known CNDDB occurrence is approximately 1.0 miles southeast of the project site west of Brown Field Naval Air Station (CDFW 2020).
Nyctinomops femorosaccus	pocketed free-tailed bat	None/SSC/None/None	Pinyon–juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, and palm oases; roosts in high cliffs or rock outcrops with drop-offs, caverns, and buildings	Not expected to roost or forage on site. The site lacks cliffs, rock outcrops, and buildings suitable for roosting and suitable desert habitat for foraging. The closest known CNDDB occurrence is approximately 3.4 miles northwest of the project site in Chula Vista (CDFW 2020).
Nyctinomops macrotis	big free-tailed bat	None/SSC/None/None	Rocky areas; roosts in caves, holes in trees, buildings, and crevices on cliffs and rocky outcrops; forages over water	Not expected to occur. No suitable vegetation present. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Odocoileus hemionus	mule deer	None/None/Covered/Covered	Coastal sage scrub, chaparral, riparian, woodlands, and forest; often browses in open area adjacent to cover throughout California, except deserts and intensely farmed areas	Low potential to occur. This site is highly disturbed and adjacent to existing development, including I-805. This species may use the Otay River corridor but has low potential to browse on site. This species is not known to occur within the vicinity (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Perognathus longimembris pacificus	Pacific pocket mouse	FE/SSC/None/None	fine-grained sandy substrates in open coastal strand, coastal dunes, and river alluvium	Not expected to occur. The site lacks coastal strand, dunes, and river alluvium. The closest known CNDDB occurrence is approximately 4.1 miles southwest of the project site within the Lower Tijuana River Valley (CDFW 2020).
Puma concolor	cougar	None/None/Covered/Covered	Scrubs, chaparral, riparian, woodland, and forest; rests in rocky areas and on cliffs and ledges that provide cover; most abundant in riparian areas and brushy stages of most habitats throughout California, except deserts	Not expected to occur. Due to the proximity to existing development and I-805, the site's high level of disturbance and limited size this species is not expected to occur This species is not known to occur within the vicinity (CDFW 2020).
Taxidea taxus	American badger	None/SSC/None/None	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Low potential to occur. Due to the proximity to existing development and I-805, and the site's high level of disturbance this species has low potential to occur. The closest known CNDDB occurrence is approximately 3.2 miles northeast of the project site within Poggi Canyon (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
INVERTEBRATES				
Bombus crotchii	Crotch's bumble bee	None/PSE/None/None	Open grassland and scrub communities supporting suitable floral resources. Nesting occurs underground, often in abandoned holes made by rodents, or occasionally abandoned bird nests. Near-surface or subsurface disturbance such as mowing, fire, tilling, grazing, and planting may preclude nesting colonies (Xerces Society 2018).	Moderate potential to forage on-site due to available nectar sources on-site; however, low potential to nest due to lack of suitable burrows, history of tilling from prior agricultural use, and dense vegetation present throughout a majority of the site. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/None/Covered/Covered	Vernal pools, non-vegetated ephemeral pools	Low potential to occur. There are clay soils on site; however, there are no vernal pools. The closest known CNDDB occurrence is approximately 0.8 miles south of the project site within San Ysidro in natural and artificial seasonal wetlands and were planned for translocation; the site has since been developed (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area				
Scientific Name	Common Name	Status (Federal/State/Chula Vista MSCP/ San Diego MSCP)	Habitat	Potential to Occur
Euphydryas editha quino	Quino checkerspot butterfly	FE/None/Covered/None	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include Plantago erecta, Antirrhinum coulterianum, and Plantago patagonica (Silverado Occurrence Complex)	Not expected to occur. Although the project site occurs within the USFWS survey area for the species, it does not occur within the City of Chula Vista's MSCP Subarea Plan 2000 QCB Survey Area. The project site lacks this species host plant and the majority of the site is highly disturbed and surrounded by existing development. The closest known CNDDB occurrence is approximately 3.8 miles east of the project site in Otay Mesa (CDFW 2020).
Lycaena hermes	Hermes copper	FC/None/None/None	Mixed woodlands, chaparral, and coastal scrub	Low potential to occur. There is no spiny rushberry (*Rhamnus crocea*) host plant on site. There are no known occurrences within 5 miles of the project site (CDFW 2020).
Panoquina errans	wandering skipper	None/None/None/None	Saltmarsh	Not expected to occur. No suitable vegetation present. The closest known CNDDB occurrence is approximately 4.3 miles southwest of the project site within the Tijuana Estuary National Wildlife Refuge (CDFW 2020).
Streptocephalus woottoni	Riverside fairy shrimp	FE/None/Covered/Covered	Vernal pools, non-vegetated ephemeral pools	Low potential to occur. There are clay soils on site; however, there are no vernal pools. The closest known CNDDB occurrence is approximately 1.3 miles southeast of the project site within the Robinhood Ridge vernal pool preserve (CDFW 2020).

Attachment 10 Special-Status Wildlife Species Potential to Occur within the Project Area
MSCP = Multiple Species Conservation Program; CNDDB = California Natural Diversity Database. Vicinity refers to Imperial Beach USGS 7.5-minute quadrangle and surrounding quadrangles, including Point Loma, National City, Jamul Mountains, and Otay Mesa (CDFW 2020). **Status Designations** The federal and state status of species primarily is based on the Special Animals List (August 2019), California Department of Fish and Wildlife. **Federal Designations:** FE: Federally Endangered FT: Federally Threatened FC: Federal Candidate BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern FDL: Federally Delisted **State Designations:** SE: State Endangered ST: State Threatened SSC: California Species of Special Concern FP: California Department of Fish and Wildlife Protected and Fully Protected Species WL: California Department of Fish and Wildlife Watch List PSE: Proposed State Endangered SDL: State Delisted **MSCP Designations:** MSCP Chula Vista (City of Chula Vista 2003): City of Chula Vista MSCP Subarea Plan species with known occurrences or suitable habitat within the Chula Vista Subarea (*Chula Vista Subarea Plan Covered Species* Table 4-2) San Diego MSCP: San Diego Land Development Code Biology Guidelines (City of San Diego 2018).

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ATTACHMENT 11

2011 MSCP Annual Report Excerpt with Helix Memo

THE CITY OF SAN DIEGO

February 21, 2012

Mr. David Zoutendyk
U.S. Fish and Wildlife Service
Carlsbad Field Office
6010 Hidden Valley Road
Carlsbad, CA 92009

Mr. David Mayer
California Department of Fish and Game
3883 Ruffin Road
San Diego, CA 92123

Dear Mr. Zoutendyk and Mr. Mayer:

Subject: Final 2011 MSCP Annual Report

Enclosed is the City of San Diego's Final 2011 MSCP Annual Report. In developing this report, the City of San Diego has utilized Habitrak, the GIS extension developed by CDFG for tracking loss and gain of habitat. Each project that was issued a grading permit within the year 2011 was evaluated for impacts to environmentally sensitive lands, and all impacts were entered as loss projects for the 2011 calendar year. The updated digital data for habitat loss and gain within the City of San Diego through 2011 is attached.

The regional and project specific maps that are generated by Habitrak are currently of little use and costly to print. The digital data supplied to your offices may be used to generate maps through Habitrak, if desired.

As the enclosed Summary of Habitat Losses and Gains table shows, to date the City has conserved a total of 33,606 acres inside the MHPA. This represents 64 percent of the City's conservation target in the MSCP Subarea Plan. In 2011, a total of 0.4 acres were lost inside the MHPA and 74.0 acres were conserved inside the MHPA. Additionally, 15.6-acres were lost outside the MHPA while 24.5 acres were conserved outside the MHPA. In the reporting period of 2011, Habitrak was updated to represent the 2005 acquisition and conservation of an additional 80- acres of pristine undisturbed mesa top habitat located in Del Mar Mesa. Therefore, an overall habitat gain of 154-acres inside the MHPA is depicted in 2011 Cumulative Conservation Inside Habitat Preserve of the Habitat Conservation Accounting Model.

DIVERSITY

Development Services • Planning Division
1222 First Avenue, MS 413 • San Diego, CA 92101-4101
Tel (619) 235-5200 • Fax (619) 236-6478

The City of San Diego Park and Recreation Department, Open Space Division has prepared and sent the "City of San Diego 2011 MSCP Rare Plant Monitoring Report" to the wildlife agencies under separate cover. Meanwhile, contained herein is the "MSCP Management Actions Report, January 1, 2011-December 31, 2011" prepared by the City of San Diego Park and Recreation Department & Public Utilities Department. This report provides a summary of the myriad of management projects that were undertaken in 2011. In addition to on-going stewardship and land management activities (see MSCP Management Actions Report 2011), the Park and Recreation Department Open Space Division is conducting weeding at the San Diego Ambrosia site at Mission Trails Regional Park in an adaptive management framework. This project builds on two pilot studies previously conducted by the Center for Natural Lands Management and Mike Kelly and Associates. The monitoring methods to assess management actions were developed in conjunction with the Institute for Ecological Management and Monitoring at San Diego State University. To date, pre-treatment monitoring was conducted on January 12, 2011, post-treatment monitoring was conducted on June, 9, 2011, and pre-treatment monitoring was conducted on January 31, 2012. Following the first treatment, Ambrosia appeared increased in size and extent; however, statistical assessments will be completed upon collection of two full years of data. Finally, City Parks and Recreation Department concluded that no impacts to Park and Recreation Open Spaces lands occurred in 2011.

The City's open space parks include Deer Canyon. In 2010, the Deer Canyon Mitigation Bank completed its environmental credit sales and was in the process of turning the property over to the City of San Diego as required in the Banking Implementation Agreement. In 2011, additional meetings were held with MSCP staff, the Real Estates Assets Department (READ), and the Park and Recreation Department to discuss the transfer of Deer Canyon to City Open Space. It is anticipated that the Deer Canyon property would be accepted by the City Council in 2012.

The City's Marron Valley Conerstone Mitigation Bank sold a total of 3.19 credits in 2011. Therefore, the Maroon Valley Bank has sold 63.165 credits and maintains 936.84 of remaining credits as of 2011 (attached).

Adjustments to the boundary of the MHPA are allowed on a project-by-project basis if the boundary adjustment is deemed functionally equivalent to the land that is proposed to be removed from the MHPA (see Section 5.4.2 MSCP Plan, August 1998). The wildlife agencies must concur with the adjustment. In 2011, one MHPA Boundary Line Adjustment was tentatively approved pending review of additional information. Torrey Pines City Park General Development Plan is a resource-based park first established in 1899. Previous master plans have studied the site and recommended improvements, but were not processed for approval. The project would include revisions to the MHPA boundary. Approximately 2.4 acres of land that have been in Gliderport use since the 1930s would be removed from the MHPA through a boundary line correction. In addition, a proposed boundary line adjustment would subtract 0.5 acre currently within the MHPA and would add 22.5 acres.

The Nakano Annexation Process was approved by the City and Wildlife Agencies in 2011. Through the annexation of the Nakano Property from the City of Chula Vista to the City of San Diego, the City's MSCP Subarea Plan would be amended to depict the Nakano property inside City of San Diego jurisdiction. A Consistency Analysis was prepared by Helix Environmental Consulting to demonstrate that the two jurisdictions' Subarea Plans are consistent and an additional requirement of contribution to long-term funding would be made a condition of project approval and provided by Pardee. Upon formal approval of LAFCO annexation, the applicant would resubmit to the City for Site Development Permit (SDP). At that time, Third Party Beneficiary Status would be granted to Pardee for potential indirect impacts to CAGN and included in the SDP. No MHPA boundary line adjustments for City of San Diego or City of Chula Vista were proposed.

I look forward to your comments on the enclosed information, and hope to have an opportunity to discuss the results and future needs of the City and the Wildlife Agencies as they pertain to Habitrak and the annual report requirements. Your timely review of the annual report is appreciated.

Please call Kristy Forburger at (619) 236-6583 if you have any questions.

Sincerely,

Kelly Broughton
Director, Development Services Department

KF:kf

Enclosure: MSCP Annual Report 2011
MSCP Management Actions Report, 2011
Canyon Sewer Cleaning Program and Long Term Sewer Maintenance Program Progress Report, 2011
Time Zero Report for the Central Tecolote Canyon Mitigation Project
Summary of Maroon Valley Conerstone Mitigation Bank Debits
City of San Diego Public Utilities Department Impact Totals by Project 2011
City of San Diego Public Works Department Impact Totals 2011

CC: Honorable Mayor Jerry Sanders
Betsy Miller, Biologist III, Park and Recreation Department; Open Space Division
Stacey LoMedico, Director Park and Recreation Department
Nicole McGinnis, Senior Planner, Public Utilities Department
Keli Balo, Senior Planner, Public Utilities Department
Kerry Santoro, Project Officer II, Public Works Department
Keith Greer, SANDAG

Memorandum

HELIX Environmental Planning, Inc.
7578 El Cajon Boulevard
Suite 200
La Mesa, CA 91942

Date: July 18, 2011

To: Kristy Forburger

From: Bruce McIntyre

Subject: Nakano Project

This memorandum has been prepared to provide information requested by the California Department of Fish and Game(CDFG). The information is intended to provide evidence that the proposed transfer of the Nakano property from the City of Chula Vista's MSCP Subarea Plan (SAP) to the City of San Diego's SAP will not affect the integrity of the MSCP commitments of either of the two jurisdictions nor would it jeopardize any of the sensitive biological resources associated with the project site.

In addition, this memorandum is intended to provide support for the City of San Diego's proposal to amend its SAP to include the property following annexation of the property without seeking formal approval from the Resource Agencies under the provisions of Section 5.4.3 of the MSCP Implementing Agreement. Under this section, an amendment to a SAP is allowed provided the conservation policies of the two SAPs involved in the transfer are consistent with one another. The conservation policies of both SAPs are consistent given the fact that both were prepared in accordance with the MSCP and its Implementing Agreement. As a result, the City of San Diego believes no formal Resource Agency approval is required to amend its SAP to include the Nakano property once annexation into the City of San Diego is approved by the Local Agency Formation Commission (LAFCO). Similarly, the City of San Diego believes that the Take Authorizations of its SAP would be applicable to the Nakano property upon annexation.

BACKGROUND INFORMATION

Project Location/Description

The Nakano property consists of 23.8 acres, located south of the Otay River and east of Interstate 805. The property is currently within the City of Chula Vista (see Figure 2-3 from the EIR [attached]). However, the land to the east, south and west all lies within the City of San Diego.

The property is located within the boundary of the Otay River Valley Regional Park (OVRP), which is a combined planning effort of both the County of San Diego and cities of Chula Vista and San Diego. The

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7578 El Cajon Boulevard
Suite 200
La Mesa, CA 91942

Conceptual Plan for the OVRP designates the subject property for recreational uses (see Figure 5.1-6 from the EIR [attached]). This designation (Recreation Area 8) covers the Nakano property and another property to the north, known as the Davies Property. According to the Concept Plan, the project site is intended for a variety of active or passive recreational uses. It also is intended to provide staging areas, and viewpoint and overlook areas, as appropriate. As indicated in the OVRP Concept Plan, recreation areas are intentionally located outside of the boundaries of MSCP preserve areas to avoid interfering with the habitat protection function of these preserve areas. Accordingly, as illustrated in Figure 5.4-3 of the EIR (attached), the Nakano property is located outside of the City of Chula Vista's preserve area.

Future development of the Nakano property is expected to entail a community park on approximately 11 acres and an institutional use (e.g. church) on approximately five acres. Approximately, three acres of the southern slope would be placed in a covenant of easement for non-MHPA lands. It is anticipated that the community park will include recreational uses oriented toward the OVRP including a planned trail on the south side of the Otay River.

Biological Resources

The entire parcel is currently undeveloped, although a large portion of it was previously used for agriculture. On site sensitive biological resources include two wetland and two upland vegetation communities. The wetland communities (southern willow scrub and mule fat scrub) occur along a drainage in the eastern portion of the site. The upland community of Diegan coastal sage scrub occurs along the southern slope. The other upland community (non-native grassland) occurs over the remainder of the site (Figure 5.4-1 of the EIR [attached]).

Two sensitive plants are located within the Diegan coastal sage scrub: California adolphia (*Adolphia californica*) (17 individuals) and coast barrel cactus (*Ferocactus viridescens*) (3 individuals). No narrow endemic species were observed on site. The following four sensitive wildlife species were observed or detected on site: red diamond rattlesnake, white-tailed kite, American peregrine falcon, and coastal California gnatcatcher.

Thirteen other sensitive species are either known to occur in the project vicinity or have potential to occur on site. Of those with a potential to occur, three are state and/or federally listed species: Quino checkerspot butterfly (*Euphydryas editha quino*), southwestern willow flycatcher (*Empidonax traillii extimus*), and least Bell's vireo (*Vireo bellii pusillus*). Protocol surveys conducted in 2005 for the Quino checkerspot did not find this species. The southwestern willow flycatchers and least Bell's vireo were not observed on site, and are not likely to occur because no appropriate habitat exists on site for either species. The burrowing owl (*Speotyto cunicularia hypugaea* [*Athen cunicularia*]), a State Species of Special Concern, has the potential to occur within the non-native grassland habitat onsite. In addition, just west of the project site, eucalyptus trees border the entire property. These trees may provide nesting habitat for raptors.

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7578 El Cajon Boulevard
Suite 200
La Mesa, CA 91942

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EIR Mitigation

Future development of the site is expected to impact non-native grassland (17.75 acres), Diegan coastal sage scrub (1.89 acres), southern willow scrub (0.17 acres) and mule fat scrub (0.02 acres). Mitigation Measures 5.4-2 and 5.4-5 will require impacts to Diegan coastal sage scrub and non-native grassland to be mitigated through acquisition of Tier II and Tier IIB habitat within the MHPA or the equivalent mitigation credits, respectively. Mitigation ratios will be 1:1 for Diegan coastal sage scrub and 0.5:1 for non-native grassland. The City of San Diego acknowledges that the impact to mitigation requirement for non-native grassland is too large to qualify for the City of San Diego's Habitat Acquisition Fund. Thus, Mitigation Measure 5.4-5 will be revised in the Final EIR to remove this option.

Mitigation Measure 5.4-3 of the EIR requires the applicant to purchase wetland mitigation credits in the Highland Valley Ranch Mitigation Bank or other mitigation bank, with the approval from the City of San Diego, CDFG and Corps, to mitigate wetland impacts.

Although not required as mitigation for significant impacts, the City of San Diego is including in the conditions of project approval a condition that requires pre-construction surveys be conducted for the following animal species: burrowing owl and Quino checkerspot butterfly. In addition, the condition of approval will require updated rare plant surveys be conducted prior to commencing construction.

BIOLOGICAL RESOURCE PROTECTION COMPARISON

Vegetation

Both SAPs and related support documents (e.g., City of San Diego's Land Development Code Biology Guidelines) consider the four vegetation types found on the property to be sensitive. As a result, mitigation ratios are established for each of these vegetation types. As indicated below, the mitigation ratios established by the City of San Diego are equal to those established by the City of Chula Vista. Consequently, the resources would be equally protected under both SAPs.

	Mitigation Ratios[1]	
Vegetation Type	**City of Chula Vista**	**City of San Diego**
Southern willow scrub	2:1	2:1
Mule fat scrub	1:1 to 2:1	2:1
Diegan coastal sage scrub	1:1	1:1
Non-native grassland	0.5:1	0.5:1

1 Assumes impact occurs outside a preserve area, and mitigation occurs inside a preserve area.

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Sensitive Plants/Wildlife

The coast barrel cactus is considered to be adequately conserved by both the City of Chula Vista and the City of San Diego's MSCP Subarea Plans. Furthermore, only one individual of this plant species would be impacted by future development of the project site. No impacts would occur to the California adolphia, which are located within the conserved open space portion of the project site.

The coastal California gnatcatcher is considered to be Adequately Conserved by the City of Chula Vista's SAP and is a Covered Species in the City of San Diego's SAP. In addition, the City of San Diego's SAP identifies the gnatcatcher (together with barrel cactus) as Covered Species for the Otay River Valley. It should also be noted that the majority of the gnatcatcher's habitat onsite would be protected by the proposed covenant of easement for non-MHPA lands. Since the property lies outside of identified preserve areas of both cities, mitigation for impacts or pre-construction surveys for gnatcatchers would not be required under either SAP.

Both SAP's include identical relevant management requirements as shown in Final MSCP Subregional Plan Table 3-5 through each SAP's conditions of coverage and Area Specific Management Directives (ASMD's). The Final EIR would be revised to reflect how ASMD's for each MSCP-covered species located or detected onsite (California Adolphia, Coast Barrel Cactus, and California Gnatcatcher) is addressed.

Nesting Raptors

Although not covered species, both SAPs provide measures intended to reduce impacts to raptors. Due to the proximity of eucalyptus trees to the project site, both cities would require a pre-construction survey and, if necessary, setbacks and/or noise reduction techniques to minimize disturbance of nesting raptors. The City of Chula Vista identifies the raptor breeding season as occurring between January 15 and July 31; while the City of San Diego identifies it as February 1 to September 15. The Final EIR will be revised to maintain a setback of 300 feet of nesting raptors during the January 15 to September 15 breeding season. Thus, the City of San Diego's criteria encompass the City of Chula Vista's criteria as well as an extended timeframe during the summer.

Adjacency Guidelines

Both SAPs identify a series of guidelines intended to regulate development which is located adjacent to a designated preserve area. However, the adjacency guidelines do not apply to the Nakano Project because it is not located adjacent to the preserve area designated by the City of Chula Vista's SAP along the Otay River (refer to Figure 5.4-3 of the EIR attached). Therefore, a comparison of the adjacency guidelines of the two SAPs is not considered relevant to the Nakano Project.

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7578 El Cajon Boulevard
Suite 200
La Mesa, CA 91942

Nevertheless, indirect effects of future institutional and park uses on the site are addressed on pages 5.4-8 and 9 of the EIR. For the reasons discussed on these pages, it was determined that future development would not have a significant indirect impact on the biological resources within the Otay River. Additionally, conformance with the City of San Diego's lighting code would limit offsite illumination impacts on wildlife. Implementation of the water quality controls included in Mitigation Measures 5.8-1 through 4 would avoid significant water quality impacts on biological resources associated with the Otay River.

Long-term Conservation/Management

Both SAPs have guidelines intended to assure that conservation areas are adequately maintained through the life of the MSCP. However, the long-term conservation/management provisions of the two SAPs are not relevant to the Nakano property because the project site is located outside of areas identified by either SAP for long-term preservation. Although the developer is proposing to place the southerly slope and most of the associated Diegan coastal sage scrub into a covenant of easement for non-MHPA lands, the easement would not be located within a preserve area, and would be surrounded on all sides by development. Therefore, the onsite easement would not be required to meet the specific conservation and management criteria defined by either SAP.

SAP INTEGRITY

Transfer of the Nakano Property out of the City of Chula Vista's SAP would not adversely affect the ability of the City of Chula Vista to fulfill its commitments under the MSCP Implementing Agreement to preserve sensitive biological resources. As discussed earlier, the Nakano property is not included in the City of Chula Vista's preserve area. In fact, the City of Chula Vista's SAP recognizes the fact that the property is planned for recreational uses included in the OVRP and, as such, excludes the property from the City's designated preserve areas.

Attachments: Figure 2-3 from EIR
Figure 5.1-6 from EIR
Figure 5.4-3 from the EIR

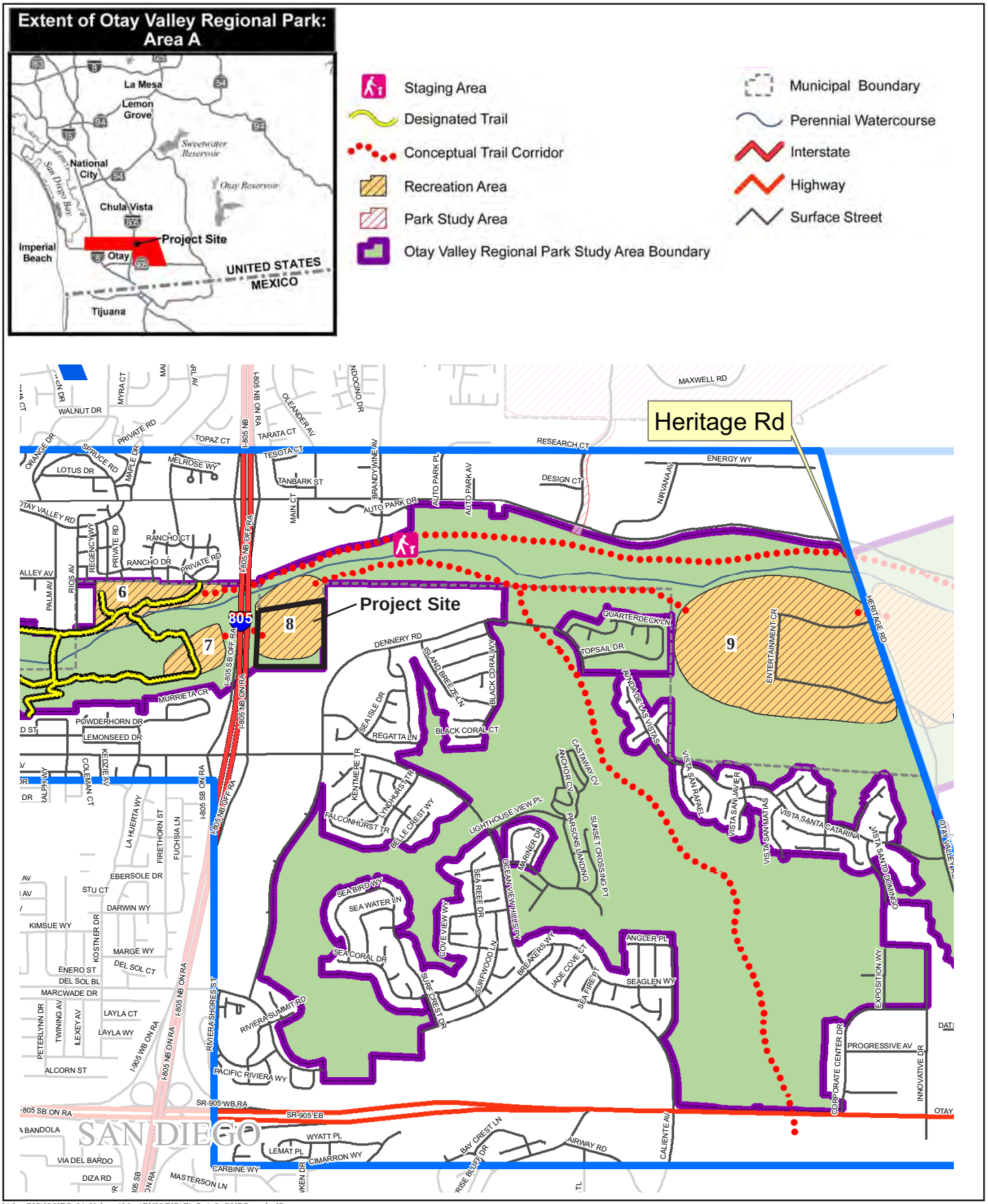


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Aerial Photograph

NAKANO

Figure 2-3



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Otay Valley Regional Park

NAKANO

Figure 5.1-6



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Multiple Species Conservation Plan

NAKANO

Figure 5.4-3

ATTACHMENT 12

2022 Multiple Species Conservation Program (MSCP) Consistency Analysis for the Nakano Project

RECON

An Employee-Owned Company

May 26, 2023

Mr. Allen Kashani
Tri Pointe Homes
13520 Evening Creek Drive North, Suite 300
San Diego CA 92128

Reference: Multiple Species Conservation Program (MSCP) Consistency Analysis for the Nakano Project, City of San Diego, California (RECON Number 3396-1)

Dear Mr. Kashani:

This report is intended to provide an analysis of the Nakano Project for consistency with the provisions of the City of San Diego Multiple Species Conservation Program (MSCP) Subarea Plan and City of Chula Vista MSCP Subarea Plan as documentation for the project's proposal to amend the City of San Diego MSCP Subarea Plan to include the subject property following annexation.

Provisions for the annexation of properties between MSCP Subarea Plans is provided in Section 5.4.3 of the MSCP Subregional Plan (County of San Diego 1998). Under this section, an amendment to a Subarea Plan is allowed provided the conservation policies of the two Subarea Plans involved in the transfer are consistent with one another. A consistency analysis was completed in 2012 by Helix Environmental Planning associated with a prior development proposal that demonstrated to the satisfaction of the Wildlife Agencies (City of San Diego 2012) that the City of San Diego MSCP Subarea Plan and City of Chula Vista MSCP Subarea Plan are consistent with each other considering they were both prepared pursuant to the MSCP Subregional Plan (County of San Diego 1998). Section 9.20 of the City of San Diego's Implementing Agreement further provides that the City of San Diego shall amend its Subarea Plan upon annexation of lands into the City of San Diego (City of San Diego 1997a). The City of San Diego's MSCP amendment would consist of updating City of San Diego MSCP Subarea Plan.to include the acreage and boundaries of the Nakano Project within the City of San Diego's subarea. This would include an update to Figure 2 of the City of San Diego MSCP Subarea Plan to depict the location of the Nakano Project within the City of San Diego's jurisdictional boundaries.

The analysis contained herein demonstrates that biological resources would be equally protected under both Subarea Plans and the transfer of the project site from the City of Chula Vista MSCP Subarea Plan to the City of San Diego MSCP Subarea Plan would be consistent with the conservation goals of the MSCP Subregional Plan. Further information is provided in the *Biological Resources Technical Report for the Nakano Project* (Biology Report; RECON 2022).

BACKGROUND

Project Location and Description

The project site consists of a 23.77-acre unimproved lot located in the city of Chula Vista, with off-site improvement areas occurring in both the city of Chula Vista and city of San Diego (Figures 1 and 2). The project site is situated immediately east of Interstate 805, northwest of Dennery Road, and south of the Otay River, and is further surrounded by a mosaic of multi-family residential, medical offices, and open space (Figure 3). Within the City of

Chula Vista Subarea Plan, the project area is designated as "Development Area Outside Covered Projects" (i.e., not designated a preserve or conservation area) and is not located immediately adjacent to any 75% or 100% Conservation Areas (see Figure 3). The closest conservation area (75%) is located approximately 197 feet north of the project area within the Otay River (see Figure 3).

The project proposes a residential development with up to 221 residential units and supporting recreational amenities and infrastructure, including a local-serving park, a regional overlook park associated with the Otay Valley Regional Park, and a trail connection to the Otay Valley Regional Park. Off-site improvements in the city of San Diego would provide access from Dennery Road, as well as secondary emergency access from Golden Sky Way. Off-site improvements in the city of Chula Vista would consist of remedial grading to stabilize the adjacent slope in addition to improvements to formalize an existing disturbed trail connection through placement of decomposed granite and installation of a peeler pole fence on one side of the trail. The project includes two scenarios: the Annexation Scenario, with the project site being annexed into the city of San Diego, and the No Annexation Scenario, with the project site remaining in the city of Chula Vista.

Under the Annexation Scenario, the project site would be annexed into the city of San Diego, and therefore would be subject to the City of San Diego MSCP Subarea Plan. This annexation would involve the transfer of a "Development Area Outside of Covered Projects" within the city Chula Vista to a "Development Area" in the city of San Diego. No 75% or 100% Conservation Areas are proposed for development or would be transferred into the city of San Diego. Upon annexation into the city of San Diego, the Take Authorizations of the City of San Diego's MSCP Subarea Plan would then be applicable to the project site. In addition, the off-site area associated with road improvements in the city of San Diego would continue to be subject to the City of San Diego MSCP Subarea Plan. The off-site area associated with remedial grading would remain in the city of Chula Vista and would continue to be subject to the City of Chula Vista MSCP Subarea Plan.

BIOLOGICAL RESOURCE PROTECTION COMPARISON

Vegetation Communities/Land Cover Types

The project would result in impacts to the following vegetation communities/land cover types: Diegan coastal sage scrub, Diegan coastal sage scrub: *Baccharis*-dominated, non-native grassland, mule fat scrub, southern willow scrub, emergent wetland, disturbed wetland, disturbed habitat, ornamental, and urban/developed (Figure 4). As indicated below, mitigation ratios provided by the City of Chula Vista MSCP Subarea Plan and City of San Diego Biology Guidelines for these vegetation communities/land cover types are consistent between jurisdictions; thus, no loss in habitat mitigation would result from the proposed transfer (Table 1).

Table 1 Mitigation Ratios for Vegetation Communities and Land Cover Types in the Project Impact Area				
Vegetation Community/ Land Cover Type	City of San Diego Biology Guidelines Vegetation Community	City of Chula Vista Subarea Plan Mitigation Ratio[1]	City of San Diego Biological Guidelines Mitigation Ratio[1]	Proposed Project Mitigation Ratio[1]
Upland Vegetation Communities				
Diegan coastal sage scrub	Coastal sage scrub	1:1	1:1	1:1
Diegan coastal sage scrub: Baccharis-dominated	Coastal sage scrub	1:1	1:1	1:1
Non-native grassland	Non-native grassland	0.5:1	0.5:1	0.5:1
Wetland Vegetation Communities				
Mule fat scrub	Riparian scrub	1:1 to 2:1	2:1	2:1
Southern willow scrub	Riparian scrub	1:1 to 2:1	2:1	2:1
Emergent wetland	Riparian scrub	1:1 to 2:1	2:1	2:1
Disturbed wetland	Disturbed wetlands	1:1 to 2:1	2:1	2:1
Land Covers				
Disturbed habitat	Disturbed land	0:1	0:1	0:1
Ornamental	Disturbed land	0:1	0:1	0:1
Urban/developed	Disturbed land	0:1	0:1	0:1
[1]Assumes impact outside of the preserve, with mitigation inside of the preserve.				

MSCP Covered Species

Species Conservation

The basis of analysis for coverage of each covered species are included in Attachment A of the City of San Diego MSCP Subarea Plan and Attachment A of the City of Chula Vista MSCP Subarea Plan. This includes the general basis for analysis for coverage, as well as quantified analysis of the populations being conserved, as well as potentially impacted under the MSCP. This analysis is identical between both Subarea Plans, as it is Table 3-5 of the MSCP Subregional Plan. Thus, there would be no change in the conservation or impact estimates for the MSCP covered species in either Subarea Plan.

Conditions for Coverage

This section addresses project compliance with respect to the conditions for coverage of MSCP covered species, which are based on Table 3-5 of the MSCP Subregional Plan and incorporated by reference into both Subarea Plans. Conditions for coverage are addressed by the project for the following species, which were observed or have potential to occur within the project area: least Bell's vireo (*Vireo bellii pusillus*), coastal California gnatcatcher (*Polioptila californica californica*), Otay tarplant (*Deinandra conjugens*), coast barrel cactus (*Ferocactus viridescens*), Cooper's hawk (*Accipiter cooperii*), burrowing owl (*Athene cunicularia*), and orange-throated whiptail (*Aspidoscelis hyperythra*).

Least Bell's Vireo – The MSCP conditions for coverage for least Bell's vireo require measures to provide appropriate successional habitat, upland buffers for all known populations, cowbird control, and specific measures to protect against detrimental edge effects to this species. Any clearing of occupied habitat must occur between September 15 and March 15 (i.e., outside of the breeding period) (City of Chula Vista 2003, City of San Diego 1997b).

In order to comply with these conditions, off-site habitat-based mitigation at the Otay River Mitigation Bank, which contains suitable least Bell's vireo habitat, is proposed to compensate for the loss of suitable least Bell's vireo habitat within the project area, as detailed in Sections 6.1.1 and 6.2.1 of the Biology Report.

Through the implementation of proper best management practices (BMPs) both during construction, the project would not cause any detrimental edge effects to the suitable least Bell's vireo habitat adjacent to the project area or the upland buffers around this habitat. Specifically, disturbances to habitat that supports least Bell's vireo such as construction-related runoff, ground disturbance, and the introduction of invasive non-native species in adjacent off-site habitat would be minimized through the implementation of erosion control devices, silt fencing, and the containment and proper disposal of invasive non-natives, respectively. In addition, the project is not expected to affect the conditions of any habitat adjacent to the project area that would make it more favorable for cowbirds.

Restrictions on clearing of occupied habitat between September 15 and March 15 will be included as project mitigation and are discussed further in Sections 6.1.3 and 6.2.3 of the Biology Report.

Coastal California Gnatcatcher – The MSCP conditions for coverage include avoiding clearing of occupied habitat within MSCP preserve areas between March 1 and August 15, as well as management directives to reduce edge effects and minimize disturbance during the nesting period (City of Chula Vista 2003, City of San Diego 1997b).

Suitable habitat for this species within and adjacent to the project area occurs entirely outside of any Conservation Areas and the MHPA. Therefore, no clearing or disturbance to this species within any Conservation Areas or the MHPA would result from project construction during the nesting period. In addition, the project's implementation of proper BMPs during construction is expected to minimize edge effects on the coastal sage scrub that would remain adjacent to the project area.

Otay Tarplant – The MSCP conditions for coverage include management directives for monitoring of populations and adaptive management of preserves (taking into consideration the extreme population fluctuations from year to year), and specific measures to protect against detrimental edge effects to this species (City of Chula Vista 2003, City of San Diego 1997b).

No impacts to Otay tarplant would occur on-site within the project site in the area proposed for annexation. Off-site impacts to Otay tarplant from the project's access road would remain in the City of San Diego, and mitigation is proposed to compensate for the loss of Otay tarplant within the project area consistent with the City of San Diego's Biology Guidelines. The mitigation site would be managed and monitored as part of the City of San Diego's MHPA. No additional populations outside of the project area were observed during biological surveys that would be subject to edge effects.

San Diego Barrel Cactus – The MSCP conditions for coverage include management directives to protect this species from edge effects, unauthorized collection, and include appropriate fire management/control practices to protect against a too frequent fire cycle (City of Chula Vista 2003, City of San Diego 1997b).

> The project's implementation of proper BMPs during construction is expected to minimize edge effects on the coastal sage scrub that would remain within and adjacent to the project area. In addition, unauthorized collection is not expected as the project is separated by fencing and 2:1 manufactured slopes from the habitat for this species. Fire frequency is not expected to increase with project implementation.

Cooper's Hawk – The MSCP conditions of coverage for Cooper's hawk include establishment of 300-foot impact avoidance areas around active nests, and minimization of disturbance in oak woodlands and oak riparian forests (City of Chula Vista 2003, City of San Diego 1997b).

> In order to accomplish this, the project includes measures to avoid the removal of potential Cooper's hawk habitat during the breeding season or, if the removal of habitat must occur during the breeding season, to conduct pre-construction surveys and establish a 300-foot impact avoidance area around any active Cooper's hawk nest. In addition, a biological monitor would be present during any vegetation removal activities, and it would be the responsibility of that monitor to assess the effectiveness of the 300-foot buffer. If needed, the biological monitor would identify additional measures necessary to avoid impacts to Cooper's hawk, such as increasing the buffer or implementing noise attenuation barriers.

Orange-throated Whiptail – The condition for coverage of orange-throated whiptail under the MSCP requires area specific management directives to address edge effects (City of Chula Vista 2003, City of San Diego 1997b).

> The project's implementation of proper BMPs during construction is expected to minimize edge effects on suitable orange-throated whiptail habitat.

Burrowing Owl – The MSCP conditions of coverage for burrowing owl include avoiding impacts to the species to the maximum extent practicable. If burrowing owl are detected on-site, any impacted individuals must be relocated out of the impact area using passive or active methodologies approved by the wildlife agencies; mitigation for impacts to occupied habitat (at the Subarea Plan specified ratio) must be through the conservation of occupied burrowing owl habitat or conservation of lands appropriate for restoration, management and enhancement of burrowing owl nesting and foraging requirements (City of Chula Vista 2003, City of San Diego 1997b).

> This species has a moderate potential to forage in the project area due to the presence of suitable low-lying grassland, though has a low potential to nest due to lack of suitable burrows. However, to ensure consistency with this condition, the project includes measures to avoid impacts to burrowing owl, including pre-construction surveys to ensure this species does not occur in the project area at the time of construction.

Adjacency Guidelines

Both Subarea Plans identify a series of guidelines intended to regulate development which is located adjacent to a designated preserve area. However, the adjacency guidelines are not relevant to the project because it is not located adjacent to the MHPA or any Conservation Areas.

Long-Term Management

Both Subarea Plans have guidelines intended to assure that conservation areas are adequately maintained in perpetuity. However, the long-term management provisions of both Subarea Plans are not relevant to the project

because the project site is located outside of areas identified for long-term preservation (e.g., MHPA, Conservation Areas) and no on-site preservation areas are proposed as mitigation.

SUMMARY

As described above, the project is consistent with the provisions of the MSCP Subregional Plan as implemented by both the City of Chula Vista MSCP Subarea Plan and City of San Diego MSCP Subarea Plan. The annexation would involve the transfer of a "Development Area Outside of Covered Projects" within Chula Vista to a "Development Area" in the City of San Diego. No 75% or 100% Conservation Areas are proposed for development or would be transferred into the City of San Diego, so the transfer would not affect the City of Chula Vista's ability to meet their conservation obligations under the MSCP. Mitigation ratios provided by the City of Chula Vista MSCP Subarea Plan and City of San Diego Biology Guidelines are consistent between jurisdictions; thus, no loss in habitat mitigation would result from the proposed transfer. In addition, the project area as a whole would continue to be subject to the MSCP Conditions for Coverage for covered species, which is based on Table 3-5 of the MSCP Subregional Plan and is consistent between both Subarea Plans. Therefore, transfer of the project site to the city of San Diego would not result in additional impacts to covered species. Thus, it is clearly demonstrated that the City of Chula Vista MSCP Subarea Plan and City of San Diego MSCP Subarea Plan and implementing strategies as applicable to the project are the same and biological resources would be equally protected under both Subarea Plans and the transfer of the project site from the City of Chula Vista MSCP Subarea Plan to the City of San Diego MSCP Subarea Plan would be consistent with the conservation goals of the MSCP Subregional Plan.

If you have any questions or require further information, please contact me at clyons@reconenvironmental.com or (619) 308-9333 extension 108.

Sincerely,

Cailin Lyons
Director, Biology Group

CML:jg

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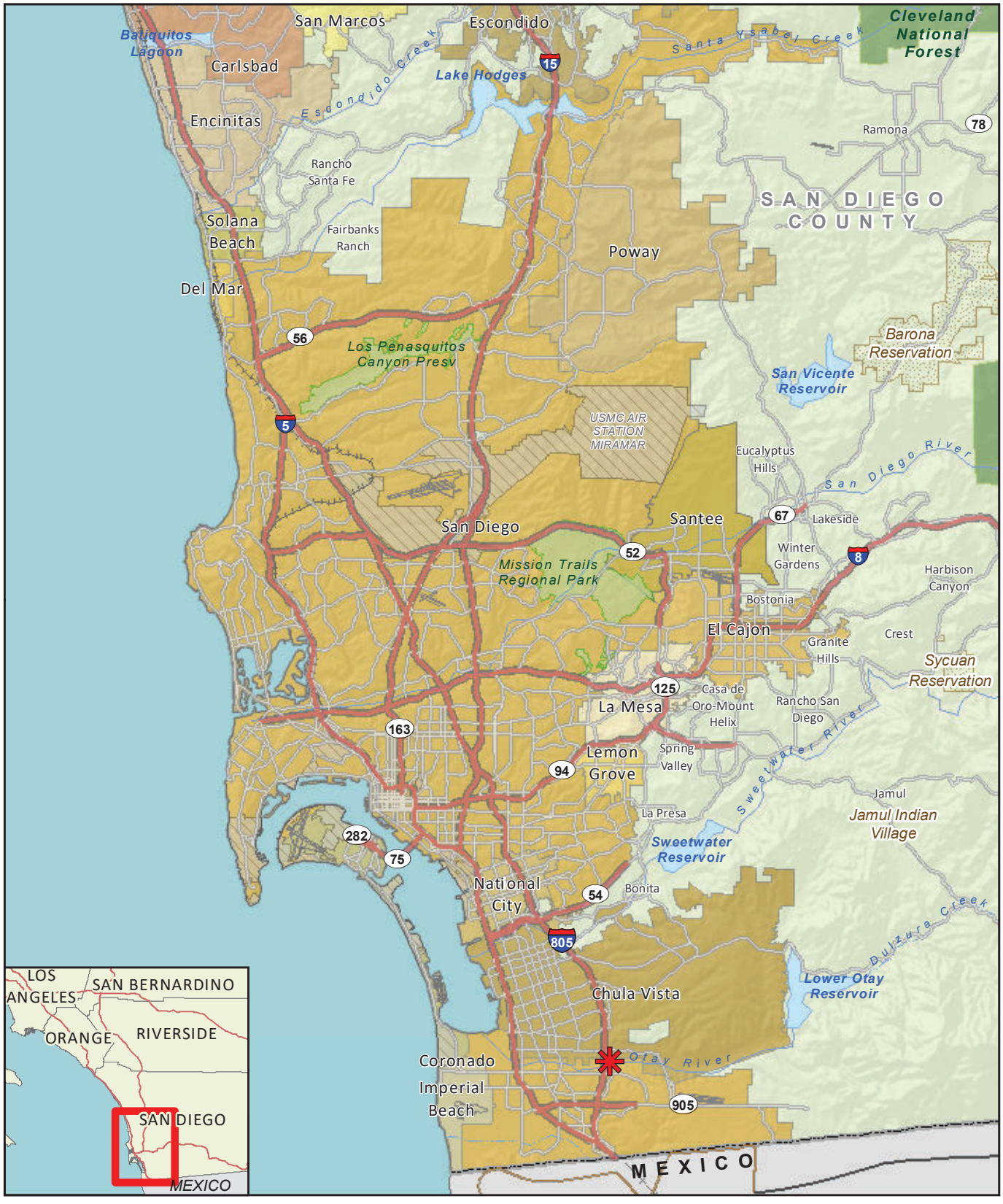
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Project Location

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FIGURE 1
Regional Location

Image Source: NearMap (flown April 2022)



Project Boundary

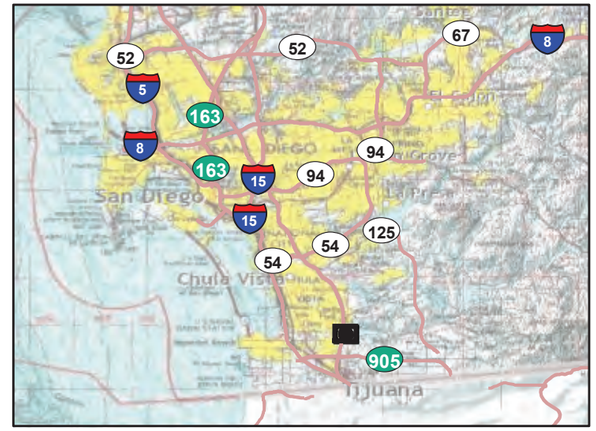
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FIGURE 2
Project Location on Aerial Photograph

Image Source: NearMap (flown January 2023)





Project Boundary
City Limit
Project Impacts

City of San Diego MSCP Subarea Plan
City of San Diego MHPA

City of Chula Vista MSCP Subarea Plan
75% Conservation Area - Habitat Preserve
100% Conservation Area - Habitat Preserve

0 Feet 500

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FIGURE 3
City of San Diego MHPA and
City of Chula Vista Conservation Areas

Image Source: NearMap (flown January 2023)



Project Boundary
Survey Area
Project Impacts
BMZ Zone 1
BMZ Zone 2

Sensitive Wildlife

- Coastal California Gnatcatcher (*Polioptila californica californica*)
- Least Bell's Vireo (*Vireo bellii pusillus*)
- Yellow-breasted Chat (*Icteria virens*)
- Yellow Warbler (*Setophaga petechia*)

Sensitive Plants

- California Adolphia (*Adolphia californica*)
- Otay Tarplant (*Deinandra conjugens*)
- San Diego County Viguiera (*Bahiopsis lacniata*)
- San Diego Barrel Cactus (*Ferocactus viridescens*)
- San Diego Bur-sage (*Ambrosia chenopodiifolia*)
- Ashy Spike-moss (*Selaginella cinerascens*)
- Small-flowered Microseris (*Microseris douglasii* ssp. *platycarpha*)
- San Diego Marsh-elder (*Iva hayesiana*)
- South Coast Saltscale (*Atriplex pacifica*)

Vegetation Communities

- Arundo-Dominated Riparian
- Diegan Coastal Sage Scrub
- Diegan Coastal Sage Scrub: Baccharis-dominated
- Disturbed Habitat
- Disturbed Wetland
- Emergent Wetland
- Eucalyptus Woodland
- Mule Fat Scrub
- Non-Native Grassland
- Ornamental
- Southern Willow Scrub
- Urban/Developed

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FIGURE 4
Impacts to Biological Resources

ATTACHMENTS 13 through 18

Under Separate Cover

Please see Appendix D Part 2 of 2