Appendix C Bear Valley Parkway Specific Alignment Plan Biological Resources Technical Report (October 2016)

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Bear Valley Parkway Specific Alignment Plan
Biological Technical Report
San Diego County, California

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TABLE OF CONTENTS

Section **Page No.**

TABLE OF CONTENTS (CONTINUED)

Section **Page No.**

TABLE OF CONTENTS (CONTINUED)

Page No.

APPENDICES

FIGURES

TABLES

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ACRONYMS AND ABBREVIATIONS

Acronyms/Abbreviations	Definition
ACOE	U.S. Army Corps of Engineers
BCLA	Biological Core and Linkage Area
BMP	best management practice
CCR	California Code of Regulations
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CFR	Code of Federal Regulations
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
EIR	environmental impact report
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
FESA	Federal Endangered Species Act
FPA	Focused Planning Area
GIS	geographic information system
HCP	habitat conservation plan
I-5	Interstate 5
MHCP	Multiple Habitat Conservation Program
MM	mitigation measure
NCCP	Natural Community Conservation Planning
RWQCB	Regional Water Quality Control Board
Subarea Plan	Public Review Draft Escondido Subarea Plan
U.S.C.	United States Code
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

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SUMMARY OF FINDINGS

The Bear Valley Parkway Specific Alignment Plan has an approximately 2.60-acre project boundary in the City of Escondido, California. Biological surveys of the project boundary conducted by Dudek in 2016 included a reconnaissance-level field survey and a formal jurisdictional delineation.

The purpose of this biological resource technical report is to map and assess the existing vegetation communities and, if necessary, survey for plant and animal species recognized as special-status by local, state, or federal wildlife agencies (i.e., the U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW)). Following the surveys, direct and indirect impacts to vegetation communities and special-status species that could occur as a result of the proposed project were evaluated. This report describes the biological characteristics of the project boundary; provides an analysis of direct and indirect impacts based on the proposed project; analyzes the biological significance of the proposed project under the California Environmental Quality Act (CEQA); and discusses mitigation measures, which will reduce significant impacts to a level below significant.

There are three vegetation communities/land covers mapped on site: southern coast live oak riparian forest, disturbed habitat, and developed land. The southern coast live oak riparian forest is associated with an unvegetated stream channel and therefore regulated through the California Fish and Game Code, Section 1600–1602, and is considered jurisdictional by the CDFW.

No special-status plant species were documented on site. There is one species with moderate potential to occur: San Diego ambrosia (*Ambrosia pumila*).

No special-status wildlife species were detected on site during the surveys. There are eight special-status wildlife species that have a moderate or high potential to occur based on habitat types and species' range. While some raptors are not considered special status and are fairly common in Southern California, raptors, as a group, are considered special status, and Section 3503.5 of the California Fish and Game Code specifically prohibits the unauthorized take of raptors and raptor nests.

Implementation of the proposed project would result in direct impacts to 2.60 acres of vegetation communities and land cover, including significant direct impacts to 0.19 acre of southern live oak riparian forest, and potential impacts associated with direct or indirect impacts to nesting birds protected under the Migratory Bird Treaty Act. The impacts to 0.19 acre of southern live oak riparian forest will be mitigated through at 1:1 to 3:1 mitigation ratio as directed by *Final Multiple Habitat Conservation Program* (SANDAG 2003, Volume 1,

Table 4-7) and as anticipated by the CDFW. These impacts will be mitigated through establishment and enhancement of habitat within an approved mitigation area or through a mitigation bank. Potential impacts to nesting birds will be mitigated through pre-construction nesting bird surveys and setbacks. Impacts to disturbed habitat or developed lands are not considered significant and do not require mitigation.

1 INTRODUCTION

The Bear Valley Parkway Specific Alignment Plan has an approximately 2.60-acre project boundary in the City of Escondido, San Diego County, California. The project is located in southeast Escondido, approximately 1.5 miles east of Interstate 15 (I-5) and south of State Route 78/San Pasqual Valley Road (Figure 1). The project boundary is located on the U.S. Geological Survey (USGS) 7.5-minute Escondido quadrangle map in Section 26, Township 12S, and Range 2W (Figure 2). Dudek conducted a biological reconnaissance survey in June 2016 and a formal jurisdictional delineation in July 2016.

The purpose of this biological resource technical report is to map and assess the existing vegetation communities and describe the potential for plant and animal species recognized as special status by local, state, or federal wildlife agencies (i.e., U.S. Fish and Wildlife Service (USFWS) and California Department of Fish and Wildlife (CDFW)) to occur in the project boundary. Following the reconnaissance survey, direct and indirect impacts to vegetation communities and special-status species that would occur as a result of the proposed project were evaluated. This report describes the biological characteristics of the project boundary; provides an analysis of direct and indirect impacts based on the proposed project; analyzes the biological significance of the proposed project under the California Environmental Quality Act (CEQA); and discusses mitigation measures, which will reduce significant impacts to a level below significant.

Proposed Project

The Specific Alignment Plan addresses the ultimate roadway network improvements along Bear Valley Parkway from the City of Escondido's northern boundary (just south of Choya Canyon Road) to the intersection of Bear Valley Parkway/Sunset Drive/Ranchito Drive. The Specific Alignment Plan includes the following future improvements not already evaluated in the 661 Bear Valley Parkway project biological technical report:

- Widen and improve Bear Valley Parkway to four lanes from the northern City boundary to the existing four-lane segment just north of the Bear Valley Parkway/Sunset Drive/Ranchito Drive signalized intersection.
- Signalize and realign the Bear Valley Parkway/Encino Drive unsignalized intersection.

In addition, a 5-foot concrete sidewalk will be installed, and a portion of the eastern side will include a vegetated swale per the U.S. Environmental Protection Agency (EPA) Green Streets guidance (EPA 2008) and installation of a safety fence.

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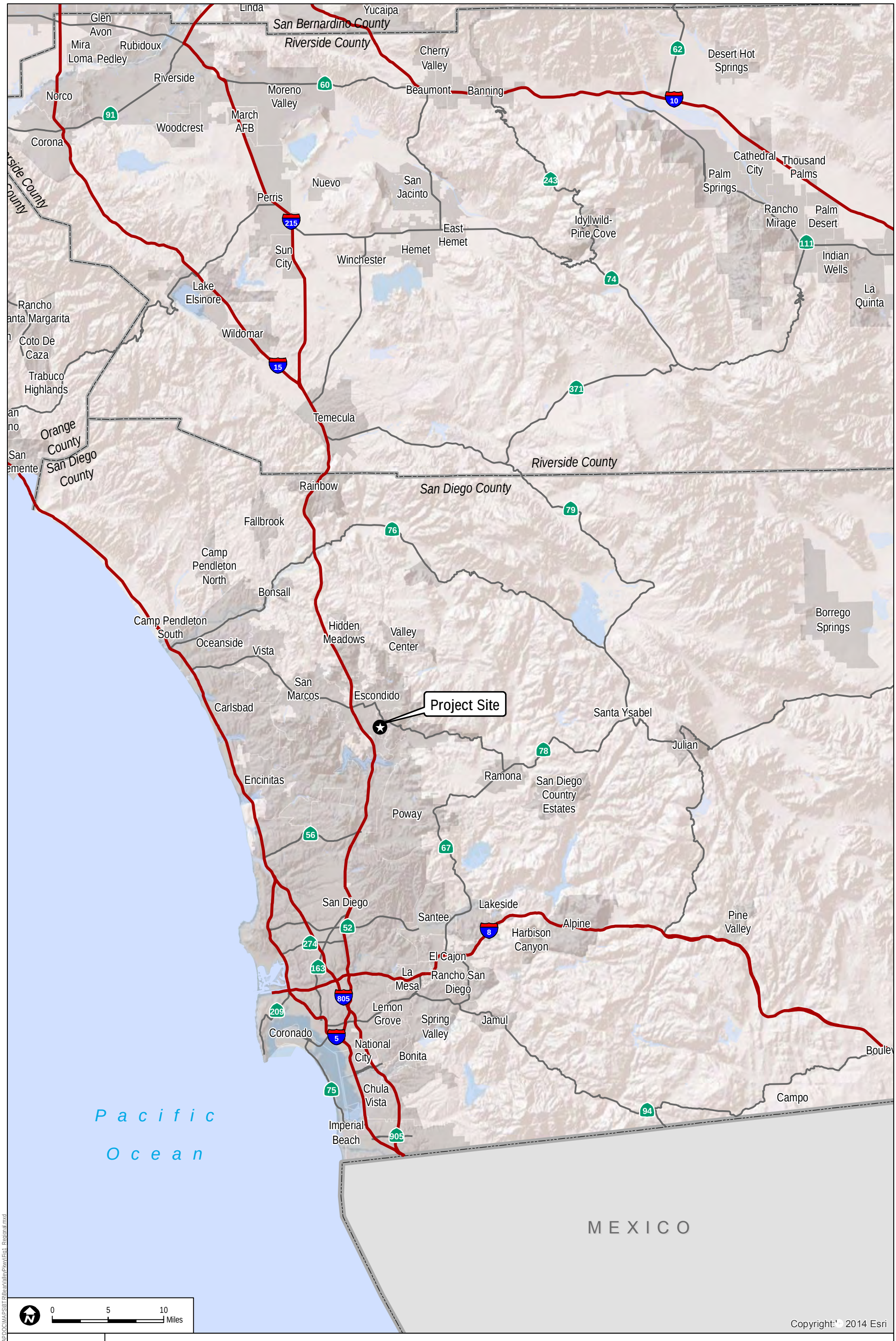

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FIGURE 1

Regional Map

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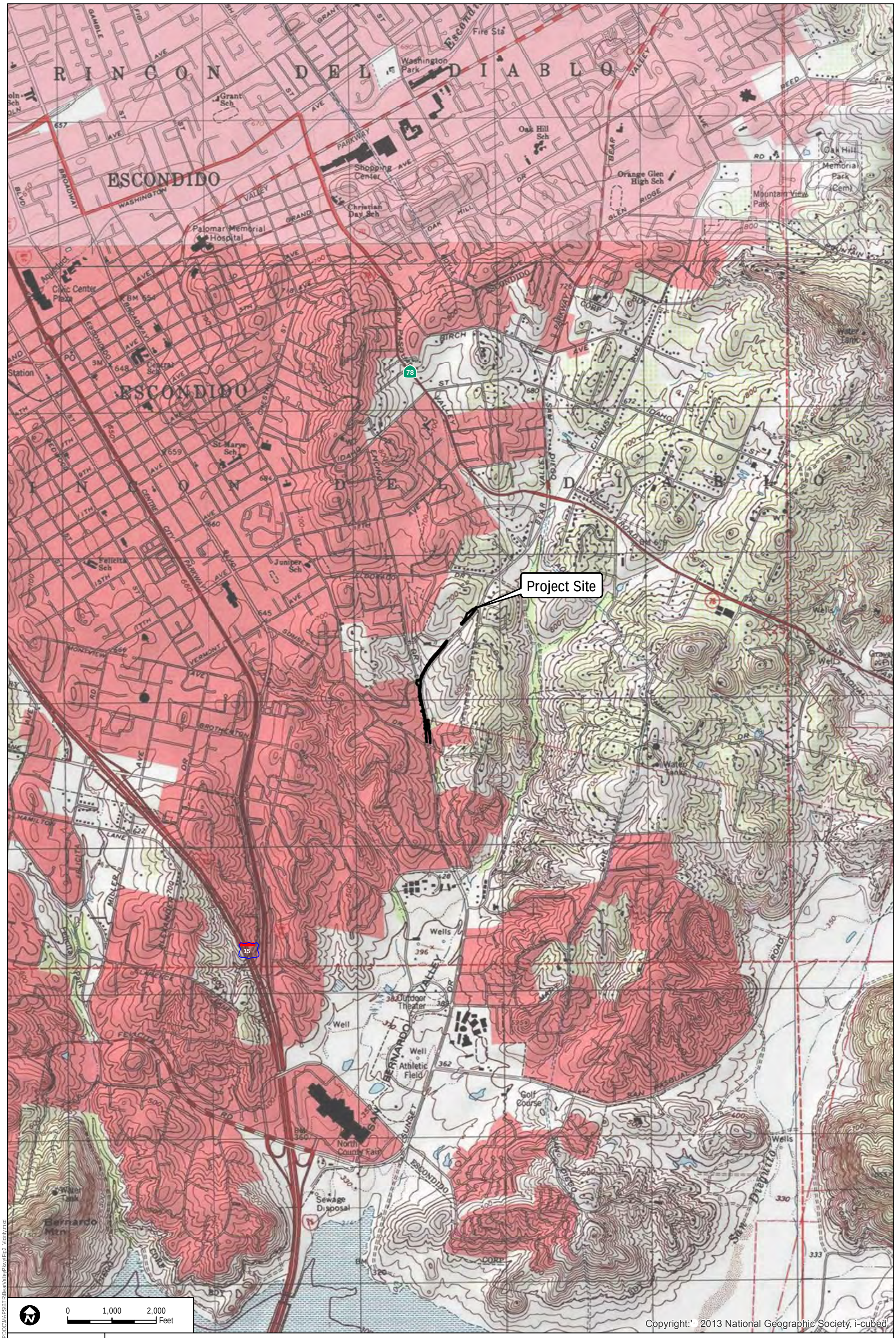

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SOURCE: USGS 7.5-Minute Series Escondido Quadrangle.

FIGURE 2

Vicinity Map

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2 PROJECT SETTING

2.1 Environmental Setting

The project boundary consists of Bear Valley Parkway and the alignment improvements immediately adjacent to it. The project boundary is located between Eldorado Road and Sunset Drive/Ranchito Drive. The property is located in a more rural part of Escondido (Figure 2).

The project boundary ranges from approximately 510 feet above mean sea level in the southern portion to 670 feet above mean sea level in the norther portion.

2.1.1 Soils

Soils on the site are mapped as Fallbrook sandy loam, 9% to 15% slopes, eroded; Ramona sandy loam, 5% to 9% slopes; Ramona sandy loam, 9% to 15% slopes, eroded; and steep gullied land (USDA 2016).

According to the Natural Resource Conservation Service, the Fallbrook series consists of deep, well-drained soils formed from weathered granitic rock. These soils occur on rolling hills and steeper slopes, and have a mean annual precipitation of approximately 15 inches (USDA 2016).

The Ramona series consists of mixed "fine-loamy" soils (USDA 2016). Ramona soils are found on flat to moderately steep slopes, with an annual precipitation of approximately 20 inches (USDA 2016).

Steep gullied land is described as "strongly sloping to steep areas that are actively eroding into old alluvium or decomposed rock" and supporting sparse vegetation (Bowman 1973).

2.1.2 Hydrology

The project boundary lies within the San Dieguito Hydrologic Unit (905.00), a rectangular-shaped area of approximately 350 square miles. This hydrologic unit lies between the San Luis Rey and Carlsbad Hydrologic Units to the north and San Diego River and Penasquitos Hydrologic Units to the south. The project boundary lies within the Hodges Hydrologic Area (905.20) within the Del Dios (905.21) and Bear Hydrologic Subareas (905.24). The project boundary is located on the border of the two subareas (Figure 3).

The San Dieguito Hydrologic Unit includes the San Dieguito River and its tributaries, including Santa Ysabel and Santa Maria Creeks. The San Dieguito Hydrologic Unit contains two major reservoirs, Lake Hodges and Sutherland Reservoir. The San Dieguito Lagoon is located at the

mouth of the San Dieguito River and forms the northerly boundary of the City of Del Mar. The lagoon is typically closed off from the ocean by a sandbar.

The National Hydrography Dataset identifies one tributary adjacent to the project boundary running from north to southeast of Bear Valley Parkway (USGS 2016). The USGS 7.5-minute quadrangle identifies this feature as a blue-line stream that is tributary to the Lake Hodges-San Dieguito River, which eventually flows into the Pacific Ocean. The tributary travels through a small portion of the project boundary, joins with a second stream approximately 0.6 mile south of the project boundary in and with the San Dieguito River approximately 2.7 miles south of the project boundary (Figure 3). The San Dieguito River then flows west into Lake Hodges and continues to the Pacific Ocean.

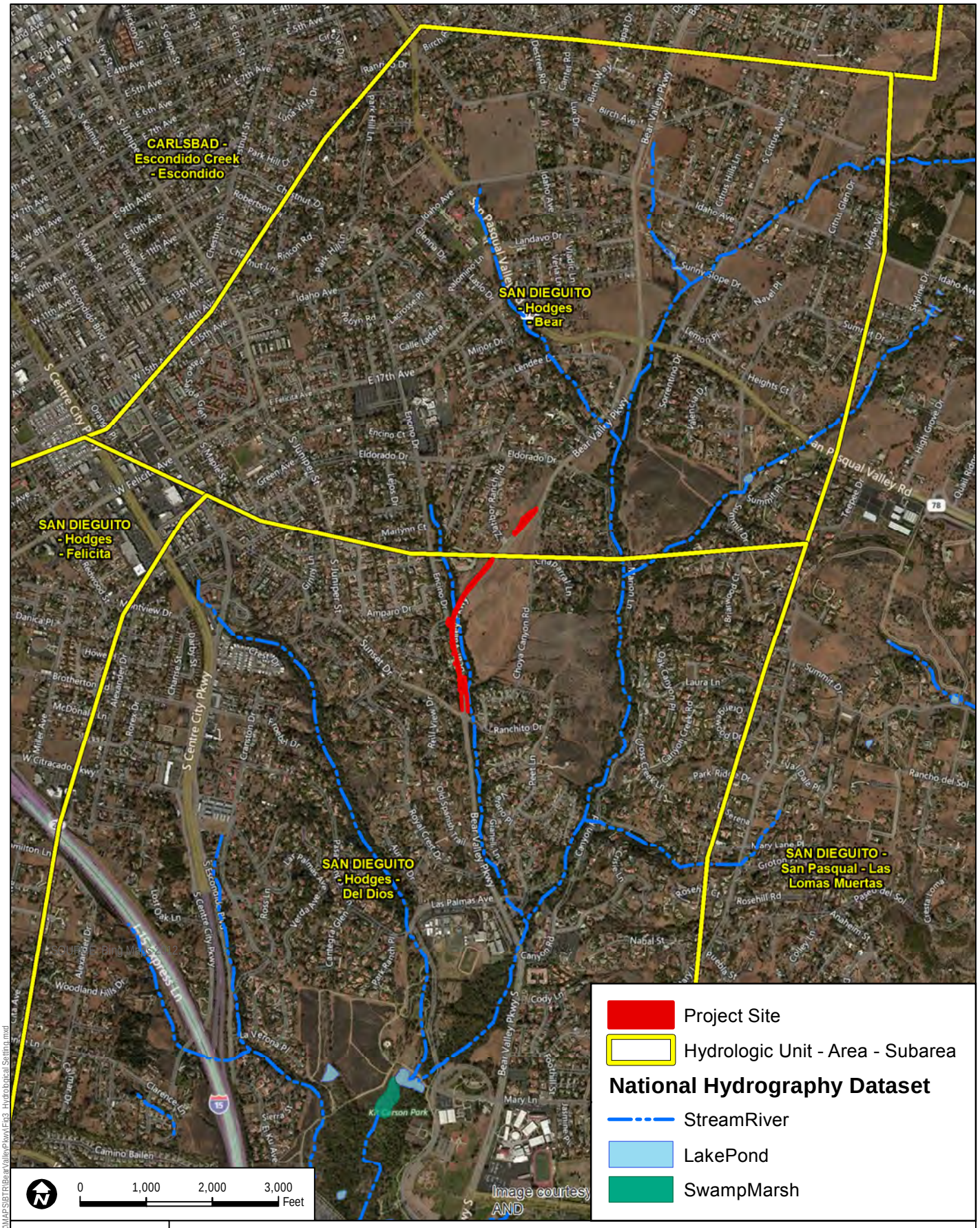
No other stream courses or water features were identified in the literature review. Section 3.2.4 describes the methods used to delineate jurisdictional aquatic resources on site, and Section 4.3.4 provides the results of these studies.

2.2 Applicable Regulations

2.2.1 Federal

Clean Water Act

The Clean Water Act (CWA) is intended to restore and maintain the quality and biological integrity of the nation's waters. Section 402 of the CWA prohibits the discharge of pollutants into waters of the United States from any point source, unless the discharge is in compliance with a National Pollutant Discharge Elimination System Permit. The CWA, Section 402, requires a National Pollutant Discharge Elimination System Permit for the discharge of stormwater from municipal separate storm sewer systems serving urban areas with a population greater than 100,000, construction sites that disturb 1 acre or more, and industrial facilities. The Regional Water Quality Control Board (RWQCB) administers these permits with oversight provided by the State Water Resources Control Board and EPA Region IX.



SOURCE: National Hydrography Dataset

FIGURE 3

Hydrologic Setting

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Bear Valley Parkway Specific Alignment Plan Biological Technical Report

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Section 404 of the CWA authorizes the Secretary of the Army, acting through the U.S. Army Corps of Engineers (ACOE), to issue permits regulating the discharge of dredged or fill materials into the "navigable waters at specified disposal sites." CWA Section 502 further defines "navigable waters" as "waters of the United States, including territorial seas." "Waters of the United States" are broadly defined in the Code of Federal Regulations (CFR), Title 33, Section 328.3, Subdivision (a)[1] to include navigable waters; perennial and intermittent streams, lakes, rivers, and ponds; and wetlands, marshes, and wet meadows. Specifically, Section 328.3(a) defines waters of the United States as follows:

1. All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
2. All interstate waters, including interstate wetlands;
3. All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce including any such waters:
    i. Which are or could be used by interstate or foreign travelers for recreational or other purposes;
    ii. From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
    iii. Which are or could be used for industrial purpose by industries in interstate commerce;
4. All impoundments of waters otherwise defined as waters of the United States under the definition;
5. Tributaries of waters identified in paragraphs (a)(1) through (4) of this section;
6. The territorial seas; and
7. Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a)(1) through (6) of this section.

[1] This regulation, 33 CFR 328.3, and the definitions contained therein, have been the subject of recent litigation. In addition, the U.S. Supreme Court has recently addressed the scope and extent of the ACOE's jurisdiction over navigable waters and waters of the United States under the CWA. See *Solid Waste Agency of Northern Cook Cty.* v. *U.S. Army Corps of Engineers*, 531 U.S. 159 (2001) ("SWANCC") and *Rapanos* v. *United States*, 126 S. Ct. 2208 (ACOE and EPA 2008). Despite the impact of these recent decisions, the definitions continue to provide guidance to the extent that they establish an outer limit for the extent of the ACOE's jurisdiction over waters of the United States, and they are referenced here for that purpose.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

8. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of CWA, the final authority regarding CWA jurisdiction remains with the EPA.

The lateral limits of the ACOE's CWA Section 404 jurisdiction in non-tidal waters are defined by the "ordinary high water mark," unless adjacent wetlands are present. The ordinary high water mark is a line on the shore or edge of a channel established by the fluctuations of water and indicated by physical characteristics, such as a clear, natural line impressed upon the bank, shelving, changes in the character of soil, destruction of vegetation, or presence of debris (33 CFR 328.3I). As such, waters are recognized in the field by the presence of a defined watercourse with appropriate physical and topographic features. If wetlands occur within, or adjacent to, waters of the United States, the lateral limits of the ACOE's jurisdiction will extend beyond the ordinary high water mark to the outer edge of the wetlands. The upstream limit of jurisdiction in the absence of adjacent wetlands is the point beyond which the ordinary high water mark is no longer perceptible (33 CFR 328.4).

Section 401 of the CWA requires that an applicant for a federal license or permit to discharge into navigable waters must provide the federal agency with a water quality certification, declaring that the discharge will comply with water quality standard requirements of the CWA. The ACOE is prohibited from issuing a CWA permit until the applicant receives a CWA Section 401 water quality certification or waiver from the RWQCB.

Federal Endangered Species Act

The federal Endangered Species Act (FESA) designates threatened and endangered animals and plants and provides measures for their protection and recovery. Under FESA, "take" of listed animal and plant species in areas under federal jurisdiction is prohibited without obtaining a federal permit. FESA defines "take" as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct" (16 U.S.C. 1531). Harm includes any act that actually kills or injures fish or wildlife, including significant habitat modification or degradation that significantly impairs essential behavioral patterns of fish or wildlife. Activities that damage (i.e., harm) the habitat of listed wildlife species require approval from USFWS for terrestrial species. If critical habitat has been designated under FESA for listed species, impacts to areas that contain the primary

constituent elements identified for the species, whether or not it is currently present, is also prohibited without obtaining a federal permit. FESA Sections 7 and 10 provide two pathways for obtaining permission to take listed species.

Under Section 7 of FESA, a federal agency that authorizes, funds, or carries out a project that "may affect" a listed species or its critical habitat must consult with the USFWS. For example, the ACOE must issue a permit for projects impacting waters or wetlands under ACOE jurisdiction. In a Section 7 consultation, the lead agency (e.g., ACOE) prepares a biological assessment that analyzes whether the project is likely to adversely affect listed wildlife or plant species or their critical habitat, and it proposes suitable avoidance, minimization, or compensatory mitigation measures. If the action would adversely affect the species, USFWS has up to 135 days to complete the consultation process and develop a biological opinion determining whether the project is likely to jeopardize the continued existing species or result in adverse modification of critical habitat. If a "no jeopardy" opinion is provided, "the action agency may proceed with the action as proposed, provided no incidental take is anticipated. If incidental take is anticipated, the agency or the applicant must comply with the reasonable and prudent measures and implementing terms and conditions in the Service's incidental take statement to avoid potential liability for any incidental take" (USFWS 1998). If a jeopardy or adverse modification opinion is provided, the USFWS may suggest "reasonable and prudent alternatives for eliminating the jeopardy or adverse modification of critical habitat in the opinion" or "choose to take other action if it believes, after a review of the biological opinion and the best available scientific information, such action satisfies section 7(a)(2)" (USFWS 1998).

Under Section 10 of FESA, private parties with no federal nexus may obtain an incidental take permit to harm listed wildlife species incidental to the lawful operation of a project. To obtain an incidental take permit, the applicant must develop a habitat conservation plan (HCP) that specifies impacts to listed species, provides minimization and mitigation measures and funding, and discusses alternatives considered and the reasons why such alternatives are not being used.

If the USFWS finds the HCP will not appreciably reduce the likelihood of the survival and recovery of the species, it will issue an incidental take permit. Issuance of incidental take permits requires the USFWS to conduct an internal Section 7 consultation, thus triggering coverage of any listed plant species or critical habitat present on site (thus listed plants on private property are protected under FESA if a listed animal is present). Unlike a Section 7 consultation, USFWS is not constrained by a time limit to issue an incidental take permit.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act implements international treaties between the United States and other nations that protect migratory birds (including their eggs and nests) from killing, hunting,

pursuing, capturing, selling, and shipping, unless expressly authorized or permitted. The list of migratory birds is extensive, including American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), and northern mockingbird (*Mimus polyglottos*) (16 U.S.C. 703–712).

2.2.2 State

California Endangered Species Act

The CDFW administers the California Endangered Species Act (CESA) (California Fish and Game Code, Section 2050 et seq.), which prohibits the take of plant and animal species designated by the Fish and Game Commission as endangered or threatened in the State of 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."

CESA Sections 2080 through 2085 address the taking of threatened, endangered, or candidate species by stating, "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided in this chapter, the Native Plant Protection Act (California Fish and Game Code, Sections 1900–1913), or the California Desert Native Plants Act (Food and Agricultural Code, Section 80001)."

California Environmental Quality Act

CEQA was enacted in 1970 to provide for full disclosure of environmental impacts to the public before issuance of a permit by state and local public agencies. Qualifying projects include zoning ordinances, issuance of conditional use permits, variances, and the approval of tentative subdivision maps. If a project is regulated under CEQA, the developer completes necessary studies and designs for the project and identifies the state lead agency for the project. The lead agency conducts an initial study that identifies the environmental impacts of the project and determines whether these impacts are significant. In some cases, the lead agency may skip the preparation of the initial study and proceed directly to the preparation of an environmental impact report (EIR). The lead agency may prepare a negative declaration if it finds no significant impacts, a mitigated negative declaration if it revises the project to avoid or mitigate significant impacts, or an EIR if it finds significant, unmitigated impacts.

The EIR is subject to more extensive public comment and provides information on the potentially significant impacts, lists ways to minimize these impacts, and discusses alternatives to the project. CEQA only provides a public review process, and projects with significant impacts may be approved if the lead agency makes a finding of overriding considerations.

In addition to state-listed or federally listed species, special-status plants and animals receive consideration under CEQA. Special-status species are discussed further in Section 4.3.

California Fish and Game Code

Birds and Mammals

According to Sections 3511 and 4700 of the California Fish and Game Code, which regulate birds and mammals, respectively, a "fully protected" species may not be taken or possessed, and "incidental takes" of these species are not authorized. However, the CDFW may authorize taking of those species for necessary scientific research, including efforts to recover fully protected, threatened, or endangered species, and may authorize the live capture and relocation of those species pursuant to a permit for the protection of livestock. Examples of fully protected species include the white-tailed kite (*Elanus leucurus*).

Resident and Migratory Birds

The California Fish and Game Code provides protection for wildlife species. It states that no mammal, bird, reptile, amphibian, or fish species listed as fully protected can be "taken or possessed at any time." In addition, CDFW affords protection over the destruction of nests and eggs of native bird species (Section 3503), and it states that no birds in the orders of *Falconiformes* or *Strigiformes* (birds of prey) can be taken, possessed, or destroyed (Section 3503.5). CDFW cannot issue permits or licenses that authorize the take of any fully protected species, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock (Section 3511). Separate from federal and state designations of species, CDFW designates certain vertebrate species as Species of Special Concern based on declining population levels, limited ranges, and/or continuing threats that have made them vulnerable to extinction.

California Native Plant Protection Act

The California Native Plant Protection Act of 1977 (California Fish and Game Code, Sections 1900–1913) directed the CDFW to carry out the legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The act gave the California Fish and Game Commission the power to designate native plants as endangered or rare and protect these plants

from take. When CESA was passed in 1984, it expanded on the original Native Plant Protection Act, enhanced legal protection for plants, and created the categories of threatened and endangered species to parallel FESA. CESA converted all rare animals into the act as threatened species but did not do so for rare plants, which resulted in three listing categories for plants in California: rare, threatened, and endangered. The Native Plant Protection Act remains part of the California Fish and Game Code, and mitigation measures for impacts to rare plants are specified in a formal agreement between CDFW and the project proponent.

California Natural Community Conservation Planning Act

The California Natural Community Conservation Planning (NCCP) Act provides for regional planning to conserve listed and candidate species, their habitats, and natural communities through habitat-based conservation measures while allowing economic growth and development (California Fish and Game Code, Section 2800–2835). The initial application of the NCCP Act was in coastal sage scrub habitat in Southern California, home to the California gnatcatcher (*Polioptila californica*); it has subsequently been applied to the CALFED Bay–Delta Program and others in Northern California.

The Southern California coastal sage scrub NCCP region consists of 11 subregions, which may be further divided into subareas corresponding to the boundaries of participating jurisdictions or landowners. In each subregion and subarea, landowners, environmental organizations, and local agencies participate in collaborative planning to develop a conservation plan acceptable to USFWS and CDFW. The NCCP conservation requires threat impacts be mitigated to a level that contributes to the recovery of listed species, rather than just avoiding jeopardy.

Porter-Cologne Water Quality Control Act

The intent of the Porter-Cologne Water Quality Control Act (California Water Code, Section 13000 et seq.) is to protect water quality and the beneficial uses of water, and it applies to both surface water and groundwater. Under this law, the State Water Resource Control Board develops statewide water quality plans, and the RWQCB develops basin plans that identify beneficial uses, water quality objectives, and implementation plans. The RWQCBs have the primary responsibility to implement the provisions of both statewide and basin plans. Waters regulated under the Porter-Cologne Water Quality Control Act include isolated waters that are no longer regulated by the ACOE. Developments with impacts to jurisdictional waters must demonstrate compliance with the goals of the act by developing Stormwater Pollution Prevention Plans, Standard Urban Storm Water Mitigation Plans, and other measures in order to obtain a CWA Section 401 certification.

Streambed Alteration Agreement

The CDFW must be notified prior to beginning any activity that would obstruct or divert the natural flow of, use material from, or deposit or dispose of material into a river, stream, or lake, whether permanent, intermittent, or ephemeral waterbodies under Section 1602 of the California Fish and Game Code. The CDFW has 30 days to review the proposed actions and propose measures to protect affected fish and wildlife resources. The final proposal that is mutually agreed upon by the CDFW and the applicant is the Streambed Alteration Agreement. The conditions of a Streambed Alteration Agreement and a CWA Section 404 permit often overlap.

2.2.3 Local/City of Escondido

The *Public Review Draft Escondido Subarea Plan* (Subarea Plan) (Ogden and CBI 2001) is intended to be consistent with the region's Multiple Habitat Conservation Program (MHCP) and with the plans prepared by the entities participating in the MHCP.

The MHCP is a comprehensive conservation planning process that addresses the needs of multiple plant and animal species in northwestern San Diego County. The MHCP encompasses the cities of Carlsbad, Encinitas, Escondido, Oceanside, San Marcos, Solana Beach, and Vista. Its goal is to conserve approximately 19,000 acres of habitat, of which roughly 8,800 acres (46%) are already in public ownership and contribute toward the habitat preserve system for the protection of more than 80 rare, threatened, or endangered species. The MHCP Subregional Plan and Final Environmental Impact Statement/Environmental Impact Report (EIS/EIR) were adopted and certified by the SANDAG Board of Directors on March 28, 2003 (SANDAG 2003).

The Subarea Plan comprehensively addresses how the City will conserve natural vegetation communities and special-status plant and wildlife species pursuant to the California NCCP Act. The Subarea Plan qualifies as a stand-alone document to implement the MHCP and forms the basis for an implementing agreement, which will be the legally binding agreement between the City of Escondido and the wildlife agencies.

The project boundary is located within the southern portion of the Subarea Plan (Figure 4). It is not located within the Biological Core and Linkage Area (BCLA) (see Figure 3-2 of the Subarea Plan). The project boundary is located outside of any Focused Planning Areas (FPAs); however, the stream channel that runs adjacent to the southwestern portion of the project boundary is designated as a Constrained Lands (Wetlands) Outside the FPA (see Figure 4-1 of the Subarea Plan and Figure 4 below). The Constrained Lands designation includes lands with steep slopes and wetlands regulated by ACOE federal wetland permitting requirements and the MHCP "no

net loss of wetlands" policy (Ogden and CBI 2001). The City of Escondido is not moving forward with the Subarea Plan at this time, so there is no take coverage afforded under the Subarea Plan or the MHCP.

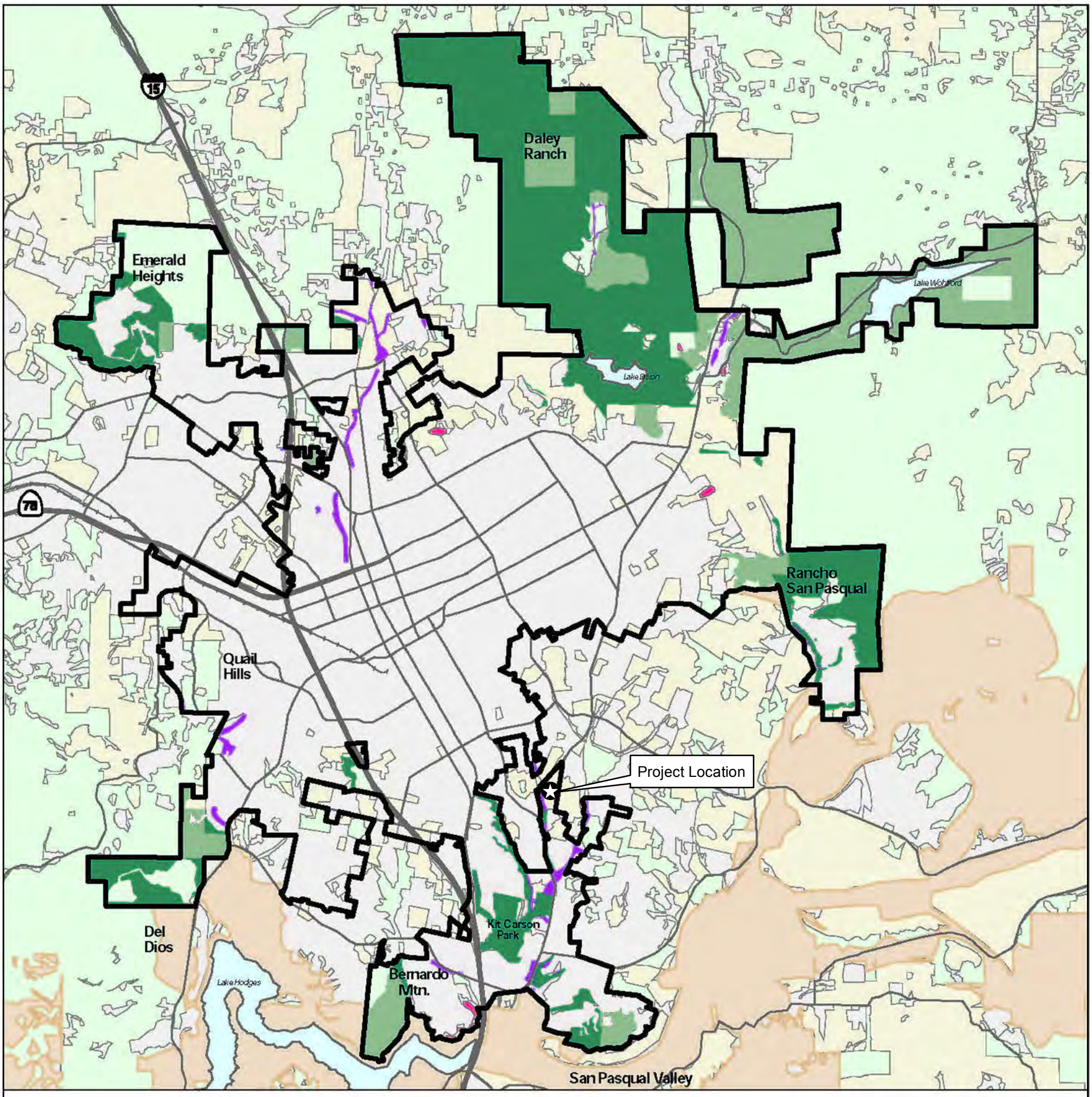

Figure 4-1
City of Escondido Subarea Plan
Focused Planning Area (FPA) and Constrained Lands Outside the FPA

- Natural Habitats
- Agricultural Land
- Developed and Disturbed Land
- Hardline Focused Planning Area (90% and greater Conservation)
- Softline Focused Planning Area (Less than 90% Conservation)
- Constrained Lands (Wetlands) Outside the FPA
- Constrained Land (Slopes > 35%) Outside the FPA
- MSCP Habitat Preserve Planning Area

San Diego ASSOCIATION OF GOVERNMENTS
May 29, 2001

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Meters 960 1,920

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SOURCE: City of Escondido, 1999

FIGURE 4
Subarea Plan

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3 METHODS

Data regarding biological resources present within the project boundary were obtained through a review of pertinent literature and through field reconnaissance; both are described in detail below.

3.1 Literature Review

Dudek reviewed literature to determine the existing biological resources within the vicinity of the project boundary using the California Natural Diversity Data Base (CNDDB) (CDFW 2016a), USFWS occurrence data (USFWS 2016), and information from the California Native Plant Society (CNPS 2016). Species included in Table 3-2, MHCP Species Occurring or Potentially Occurring in Escondido, of the Subarea Plan (Ogden and CBI 2001) were also incorporated within the special-status species tables. The purpose of this review was to determine if special-status plant and wildlife species were known to occur on site or in the nearby vicinity of the project boundary and what constraints these occurrences might have on the property.[2]

Baseline hydrology information was obtained from the USGS 7.5-minute quadrangles, National Hydrography Dataset (USGS 2016), and *Water Quality Control Plan for the San Diego Basin (9)* (CRWQCB 2011).

3.2 Field Reconnaissance

Dudek biologist Callie Ford conducted a reconnaissance-level field survey of the proposed project on June 24, 2016, and a formal jurisdictional delineation on July 14, 2016. The surveys included mapping the vegetation communities, determining potential for special-status plant species occurrences on site, and a jurisdictional delineation of aquatic resources.

3.2.1 Resource Mapping

Vegetation communities were mapped in the field directly onto a 200-scale (1 inch = 200 feet) false-color digital orthographic map of the property (Bing 2016). These boundaries and locations were digitized by Dudek geographic information system (GIS) technician Randy Deodat using ArcGIS software.

Vegetation community classifications used in this report follow Holland (1986) and Oberbauer et al. (2008), with modifications to accommodate the lack of conformity of the observed

[2] A search of the USGS 7.5-minute Escondido quadrangle and surrounding 8 quadrangles (San Marcos, Valley Center, Rodriguez Mountain, Rancho Santa Fe, San Pasqual, Del Mar, Poway and San Vicente Reservoir) was conducted for the CNDDB and CNPS searches; and a 3-mile radius search was conducted for the USFWS occurrence data.

communities to those of Holland. Vegetation communities and land covers were typically mapped using 0.10-acre minimum mapping units.

3.2.2 Flora

No focused rare plant surveys were conducted in the project boundary, but the site visits were conducted when the species potentially present would be detectable. All plant species encountered during the reconnaissance survey and jurisdictional delineation were identified and recorded. Latin and common names for plant species with a California Rare Plant Rank (CRPR) (formerly CNPS List) follow the CNPS On-Line Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2016). For plant species without a CRPR, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2015) and common names follow the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service Plants Database (USDA 2015). A list of plant species observed on the property is presented in Appendix A.

3.2.3 Fauna

Wildlife species detected during the reconnaissance survey were recorded. Binoculars (10×42 power) were used to aid in the identification of observed wildlife, and any special-status species observed or detected were mapped. In addition to species actually detected, expected wildlife use of the site was determined by known habitat preferences of local species and knowledge of their relative distributions in the area. Latin and common names of animals follow Crother (2012) for reptiles and amphibians, American Ornithologists' Union (AOU 2015) for birds, Wilson and Reeder (2005) for mammals, North American Butterfly Association (NABA 2012) or San Diego Natural History Museum (SDNHM 2002) for butterflies, and Moyle (2002) for fish. A list of wildlife species observed on the property is presented in Appendix B.

3.2.4 Jurisdictional Wetlands Delineation

A formal jurisdictional delineation was conducted by Dudek biologist Callie Ford on July 14, 2016. Ms. Ford delineated the extent of jurisdictional aquatic resources within the project boundary. Jurisdictional boundaries were mapped in the field directly onto a 200-foot-scale (1 inch = 200 feet) aerial photograph (Bing 2016) or using a Trimble GeoXT GPS with submeter accuracy. Additionally, site-specific surveying provided further define the limits of the jurisdictional resources. The delineation defined areas under the jurisdiction of the CDFW pursuant to Sections 1600–1603 of the California Fish and Game Code, under the jurisdiction of the ACOE pursuant to Section 404 of the federal CWA, and under jurisdiction of RWQCB

pursuant to CWA Section 401 and the Porter-Cologne Act. The ACOE wetland delineation was performed in accordance with ACOE methodology (ACOE 1987, 2008; ACOE and EPA 2008).

Specifically, the methodology used for each jurisdiction or regulating agency, including the ACOE, CDFW, and RWQCB, is described below.

The ACOE wetlands delineation was performed in accordance with the 1987 *U.S. Army Corps of Engineers Wetlands Delineation Manual* (ACOE 1987), the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (ACOE 2008), and guidance provided by the ACOE and EPA on the geographic extent of jurisdiction based on the U.S. Supreme Court's interpretation of the CWA (ACOE and EPA 2008). The ACOE and RWQCB, pursuant to the federal CWA, include all areas supporting all three wetlands criteria described in the ACOE manual: hydric soils, hydrology, and hydrophytic vegetation. The RWQCB may also take jurisdiction over surface waters lacking ACOE regulation pursuant to the state Porter-Cologne Act. These areas generally include areas with at least one of the three wetlands indicators but that are isolated from a tributary of navigable water through lack of evidence of surface water hydrology. Jurisdiction of the RWQCB is coincident with the ACOE in accordance with the federal CWA, except in cases where a resource is determined to be isolated from navigable waters of the United States and where the RWQCB may take jurisdiction under the state Porter-Cologne Act. A predominance of hydrophytic vegetation, where associated with a stream channel, was used to determine CDFW-regulated riparian areas. Streambeds under the jurisdiction of CDFW were delineated using the Cowardin method of waters classification, which defines waters boundaries by a single parameter (i.e., hydric soils, hydrophytic vegetation, or hydrology).

Collectively, areas under the jurisdiction of the ACOE, RWQCB, and CDFW are termed jurisdictional aquatic resources. A more detailed description of the methods is provided below.

Jurisdictional determinations were made at four sampling points (Figure 5) to determine which areas are under the jurisdiction of the regulatory agencies mentioned above. The extent of jurisdictional aquatic resources was determined by mapping the areas with similar vegetation and topography to sampled locations.

3.2.4.1 Hydrophytic Vegetation

Seasonal changes in species composition, human land-use practices, wildfires, and other natural disturbances can adversely affect the hydrophytic vegetation determination. During the delineation, a sampling point was considered positive for hydrophytic vegetation if it passed the basic dominance test (Indicator 1), meaning that more than 50% of the dominant species present

were characterized as either obligate, facultative wetland, and/or facultative per the *Arid West 2016 Regional Wetland Plant List* (Lichvar et al 2016). In those cases where the dominance test failed, the vegetation parameter was re-evaluated using the prevalence index (Indicator 2), which takes into account all plant species in the community, not just dominants. All plant species observed during the surveys were identified and recorded.

3.2.4.2 Hydric Soils

According to the National Technical Committee for Hydric Soils, hydric soils are "soils that are formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part" (USDA 1994). Soil pits were prepared using a "sharp shooter" shovel to determine if hydric soils were present. The presence of hydric soils was determined through consultations with the 1987 ACOE manual, *Field Indicators of Hydric Soils in the United States Version 7.0 with Updates* (USDA 2013), ACOE's *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region* (*Version 2.0*) (ACOE 2008), and Munsell Soil Color Charts. Where feasible, soil pits were prepared to depths ranging from 10 to 16 inches, and dry soils were moistened to obtain the most accurate color. Excavated soils were examined for evidence of hydric conditions, including low chroma values and mottling, vertical streaking, sulfidic odor, and high organic matter content in the upper horizon. Evidence of previous ponding or flooding was assessed along with the slope, slope shape, existing landform characteristics, soil material/composition, and hydrophytic vegetation to determine if hydric soils were present.

3.2.4.3 Hydrology

Per the guidelines prescribed in the Arid West supplement (ACOE 2008), wetland hydrology indicators are separated into four major groups: groups A, B, C, and D. Group A indicators are based on direct observations of surface flow, ponding, and soil saturation/groundwater. Group B indicators include evidence that the project boundary has been or is currently subjected to ponding, including water marks, drift deposits, and sediment deposits. Group C indicators include signs of previous and/or current saturation, including oxidized rhizospheres surrounding living roots and the presence of reduced iron or sulfur, both of which are indicative of extended periods of soil saturation. Group D indicators consist of "vegetation and soil features that are indicative of current rather than historic wet conditions and include a shallow aquitard and results of the Facultative (FAC)-Neutral test" (ACOE 2008). Each group is subdivided into primary and secondary categories based on their frequency and reliability to occur in the Arid West region. Signs of hydrology were investigated in the project boundary.

Path: Z:\Projects\7833\MAPDOC\MAPSIBTR\BearValleyPkwyFig5_BiologicalResources.mxd

DUDEK

SOURCE: World Imagery, SANGIS

FIGURE 5

Biological Resources

7833

JULY 2016

Bear Valley Parkway Specific Alignment Plan Biological Technical Report

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4 RESULTS OF SURVEY

4.1 Botany – Plant Communities and Floral Diversity

The project boundary primarily consists of Bear Valley Parkway, a paved two- to four-lane road (mapped as developed), as well as disturbed habitat and southern coast live oak riparian forest adjacent to Bear Valley Parkway (Table 1; Figure 5).

Table 1
Impacts to Vegetation Communities and Land Covers

Habitat Type	Acres (East)	Acres (West)	Total Acres
Wetlands/Riparian Areas			
Southern Coast Live Oak Riparian Forest (SCLO)	0.09	0.10	0.19
Other Land Covers			
Disturbed Habitat (DH)	—	1.02	1.02
Developed Land (DEV)	0.10	1.29	1.39
Total*	**0.20**	**2.40**	**2.60**

* Total may not add due to rounding.

4.1.1 Southern Coast Live Oak Riparian Forest (61310)

Southern coast live oak riparian forest is an open to locally dense evergreen riparian woodland dominated by coast live oak (*Quercus agrifolia*). Compared to other riparian communities, southern coast live oak riparian forest is generally richer in herbs and poorer in understory shrubs. This community occurs on fine-grained, rich alluvium on bottomlands and outer floodplains along larger streams.

Southern coast live oak riparian forest occurs in small areas along the perennial/intermittent stream channel that flows adjacent to the project boundary. On site, southern coast live oak riparian forest is dominated by coast live oak, scattered palm trees (*Washingtonia robusta* and *Phoenix dactylifera*), poison oak (*Toxicodendron diversilobum*), and velvet ash (*Fraxinus velutina*). Because it is associated with the stream channel, all southern coast live oak riparian forest within the project boundary is considered under the jurisdiction of CDFW.

4.1.2 Disturbed Habitat (11300)

Disturbed habitat typically occurs in areas where soils have been recently or repeatedly disturbed by grading or compaction resulting in the growth of very few native perennials. The disturbed habitat in the project boundary includes the areas adjacent to Bear Valley Parkway

that are dominated by non-native annual weedy species and a dirt road that crosses the adjacent stream channel in the southern portion of the project boundary. There is a very small portion of disturbed coastal sage scrub (0.04 acre) that is dominated by black mustard (*Brassica nigra*) and ripgut brome (*Bromus diandrus*) and did not meet the minimum mapping unit of 0.10 acre for special-status vegetation communities; therefore, it is not mapped as a separate vegetation community.

4.1.3 Developed Land (12000)

Developed land refers to areas supporting manmade structures, including homes, yards, roadways, and other highly modified lands supporting structures associated with dwellings or other permanent structures. Within the project boundary, developed land refers to Bear Valley Parkway and adjacent residences.

4.1.4 Floral Diversity

A total of 25 species of vascular plants, 8 native (32%) and 17 non-native (68%), were recorded from the site. The complete list of plant species identified on site is provided as Appendix A.

4.2 Zoology – Wildlife Diversity

Because the project boundary is primarily developed land (53%), there is limited suitability to support upland and riparian species. The small patches of southern coast live oak riparian forest that are within the project footprint are part of a larger riparian area, and it is possible some species could use these outer portions as habitat; this includes common riparian woodland species, such as birds, nesting raptors, and small mammals. Ruderal plant species on site may provide some foraging and/or nesting habitat for small birds, such as house finch (*Carpodacus mexicanus*) and bushtit (*Pheucticus melanocephalus*). The larger patches of disturbed habitat along the northwestern side of Bear Valley Parkway could provide foraging habitat for a variety of upland birds, reptiles, and small mammals such as California ground squirrel (*Spermophilus (Otospermophilus) beecheyi*). Fifteen wildlife species were observed during the surveys (Appendix B).

4.2.1 Birds

Ten bird species were observed during the survey. Typical species observed on site include American crow (*Corvus brachyrhynchos*), lesser goldfinch (*Spinus psaltria*), Anna's hummingbird (*Calypte anna*), and northern mockingbird (*Mimus polyglottos*). A red-tailed hawk (*Buteo jamaicensis*) was observed, and other raptors may use the site. Raptors could potentially nest in the oak woodland.

4.2.2 Reptiles and Amphibians

One reptile, common side-blotched lizard (*Uta stansburiana*), and no amphibian species were recorded during surveys; however, common reptiles that likely occur on site include western fence lizard (*Sceloporus occidentalis*) and gopher snake (*Pituophis melanoleucus*). Treefrogs (*Pseudacris regilla, P. cadaverina*) may use the stream channels adjacent to the site.

4.2.3 Mammals

Three common species of mammals were recorded on site: California ground squirrel (*Spermophilus beecheyi*), Virginia opossum (*Didelphis virginiana*), and coyote (*Canis latrans*). Other mammals adapted to living in areas near human disturbance, such as striped skunk (*Mephitis mephitis*), Botta's pocket gopher (*Thomomys bottae*), raccoon (*Procyon lotor*), and mule deer (*Odocoileus hemionus*) may also occur on the site.

4.2.4 Invertebrates

One butterfly, checkered white (*Pontia protodice*), was recorded on site; however, common butterflies that could occur on site include swallowtail species (*Papilio* spp.), cabbage butterfly (*Pieris rapae*), west coast lady (*Vanessa annabella*), painted lady (*Vanessa cardui*), and buckeye (*Junonia coenia*).

4.3 Special-Status Biological Resources/Regulated Resources

Endangered, rare, or threatened plant species, as defined in CEQA Guidelines Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status plant species" in this report and include (1) endangered or threatened plant species recognized in the context of CESA and FESA; and (2) plant species with a CRPR 1 or 2 designation (CDFW 2016b, 2016c; CNPS 2016).

Appendix C lists the special-status plant species reported in the USGS 7.5-minute Escondido quadrangle and the surrounding eight topographic quadrangles (CNPS and CNDDB occurrences). Species included in Table 3-2, MHCP Species Occurring or Potentially Occurring in Escondido, of the Subarea Plan were also incorporated within the special-status species tables (Ogden and CBI 2001). This appendix also includes an analysis of each of these special-status species' occurrence or potential to occur based on known range, habitat associations, preferred soil substrate, life form, elevation, and blooming period.

Endangered, rare, or threatened wildlife species, as defined in CEQA Guidelines, Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status wildlife species" and, as used in this report, include (1) endangered or threatened wildlife species recognized in the context of

CESA and FESA; (2) California Species of Special Concern, as designated by the CDFW (2016d); and (3) mammals and birds that are fully protected species, as described in California Fish and Game Code, Sections 4700 and 3511; (4) species included in the Subarea Plan; (5) species documented by other organizations as being rare.

Appendix D lists occurrences of special-status wildlife species reported in the USGS 7.5-minute Escondido quadrangle and the surrounding eight topographic quadrangles resulting from a CNDDB search (CDFW 2016a) and from Table 3-2 of the Subarea Plan (Ogden and CBI 2001). Appendix D describes these species' potential to occur in the project boundary based on the range, presence of suitable habitat, and life history of the species.

4.3.1 Special-Status Plant Species

No special-status plant species were detected during the reconnaissance survey or jurisdictional delineation. A rare plant survey was not conducted because the site supports limited suitable habitat and contains low diversity of plant species. There is one special-status plant species with moderate potential to occur within the project boundary: San Diego ambrosia (*Ambrosia pumila*). This species is typically found within riparian habitats or disturbed areas with sandy soils, which the project boundary supports; however, this species was not observed during the reconnaissance survey. The potential for the other special-status plants is low or not expected due to the high level of developed and disturbed habitat that exists on site (see Appendix C).

4.3.2 Special-Status Wildlife Species

Although no special-status wildlife species were observed on site during the reconnaissance survey or jurisdictional delineation, there are several that have a moderate to high potential to occur.

The southern coast live oak riparian forest would be expected to receive general use by wildlife. The perennial/intermittent stream adjacent to the project site could provide a water source and associated habitat for a number of special-status wildlife species that could then also use the project boundary for foraging or nesting requirements or dispersal purposes.

Special-Status Mammals

Two species have moderate potential to use the project boundary, western red bat (*Lasiurus blossevillii*) and San Diego blacktailed jackrabbit (*Lepus californicus bennettii*). The western red bat has potential to forage in habitat edges along riparian areas and therefore has potential to roost in trees occurring on site. The San Diego black-tailed jackrabbit prefers open and disturbed areas, which the project boundary contains and which are adjacent to the project boundary.

No special-status mammals have a high potential to occur in the project boundary.

Special-Status Birds

No special-status bird species were observed on site, but some have the potential to occur. Cooper's hawk (*Accipiter cooperii*) has a high potential to occur in the oak woodland. Special-status bird species that have a moderate potential to occur include burrowing owl (*Athene cunicularia*) and white-tailed kite (*Elanus leucurus*) (see Appendix D).

A number of special-status bird species, as described in Appendix D, have moderate or low potential to use the project boundary due to its size, connectivity to other undeveloped areas, and potential perching, roosting, and nesting locations within the coast live oak trees.

The major nesting opportunities for raptors are along the southwestern border of the project boundary where the riparian habitat is located; however, no special-status raptors were observed during any of the surveys.

Special-Status Amphibians and Reptiles

There is only one area on site that provides a regular water source—the perennial stream along the southeastern portion of the project boundary. It has low potential to support special-status amphibians due to the level of disturbance surrounding the project boundary and its small size.

No special-status reptile species were observed or have high potential to occur. There are several with moderate potential, including two-striped garter snake (*Thamnophis hammondii*; a California Species of Special Concern), orange-throated whiptail (*Aspidoscelis hyperythra*), and coastal whiptail (*Aspidoscelis tigris stejnegeri*; a California Species of Special Concern).

4.3.3 Wildlife Corridors and Habitat Linkages

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Wildlife corridors contribute to population viability by assuring continual exchange of genes between populations, providing access to adjacent habitat areas for foraging and mating, and providing routes for recolonization of habitat after local extirpation or ecological catastrophes (e.g., fires). Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation. Habitat linkages provide a potential route for gene flow and long-term dispersal of plants and animals and may serve as primary habitat for smaller animals, such as reptiles and amphibians. Habitat linkages may be continuous habitat or discrete habitat islands that function as stepping stones for dispersal.

While the project boundary may provide for localized wildlife movement along the adjacent stream channel, most of the project boundary consists of disturbed habitat, and surrounding areas are developed. Although there is a perennial/intermittent stream that flows through a small portion of the site, there are no major aquatic resources on site that would be attractive for wildlife use and movement.

Analysis of wildlife movement on a regional basis is based on Figure 4-1 of the Subarea Plan. The perennial/intermittent stream on site is considered a Constrained Wetlands Outside the FPA and flows south to Kit Carson Park, which is a Hardline Focused Planning Area. Wildlife movement is assumed to occur via the areas east of the project boundary designated as Natural Lands and MSCP Habitat Preserve (Ogden and CBI 2001, Figure 4-1). Other wildlife movement could occur to the south around the Lake Hodges MSCP Habitat Preserve. The wildlife movement is somewhat fragmented, but mobile species such as birds would be able to traverse the off-site rural residential properties, connect to the drainage that flows south, and connect to the regional corridor that includes Kit Carson Park and the Lake Hodges and San Dieguito River to the south and east.

4.3.4 Jurisdictional Aquatic Resources

The potential jurisdictional aquatic resources studied as part of the survey include southern coast live oak riparian forest occurring along the stream channel east of Bear Valley Parkway (outside of the project boundary). The southern coast live oak riparian forest did not show signs of wetland hydrology, hydric soils, or hydrophytic vegetation (see sampling points 1B and 2B). However, since this vegetation community is associated with the stream channel, it is considered riparian habitat under the jurisdiction of CDFW.

The riparian areas under CDFW jurisdiction within the project boundary are shown in Table 2 and Figure 4.

Table 2
Jurisdictional Aquatic Resources

Location	CDFW Riparian Area
Bear Valley Parkway (East)	0.09 acre
Bear Valley Parkway (West)	0.10 acre
Total Jurisdictional Area	**0.19 acre**

The wetlands determination forms used to support these classifications are provided in Appendix E.

5 ANTICIPATED PROJECT IMPACTS

This section addresses direct and indirect impacts to biological resources that would result from implementation of the proposed project.

Direct impacts refer to 100% permanent loss of a biological resource. For purposes of this report, the entire project boundary is part of the proposed alignment footprint and would be directly impacted. Direct impacts are shown on Figure 4.

Indirect impacts are reasonably foreseeable effects caused by project implementation on remaining or adjacent biological resources outside the direct project impacts. Indirect impacts include short-term effects related to construction activities and long-term or chronic effects related to the road alignment. In most cases, indirect effects are not quantified, but in some cases, quantification might be included, such as using a noise contour to quantify indirect impacts to nesting birds.

5.1 Direct Impacts

5.1.1 Vegetation Communities

Short-term, construction-related, or temporary direct impacts to vegetation communities would primarily result from construction activities. Clearing, trampling, or grading of vegetation outside designated construction zones could occur in the absence of avoidance and mitigation measures. These potential effects could damage vegetation communities and alter their ecosystem, creating gaps in vegetation that allow exotic, non-native plant species to become established, thus increasing soil compaction and leading to soil erosion.

Direct impacts to vegetation communities within the project boundary would occur as a result of road widening and grading activities. Table 1 in Section 4.1 summarizes the direct impacts to the vegetation communities.

5.1.2 Special-Status Plants

No special-status plants were observed within the project boundary. Due to the high level of disturbance within the project boundary and because the single species with moderate potential to occur, San Diego ambrosia, would likely occur outside the impact area and was not observed during the visits during June and July, it is not expected that implementation of the proposed project would result in impacts to special-status plant species.

5.1.3 Special-Status Wildlife

No special-status wildlife species were detected on site. Two raptors, red-shouldered hawk and American kestrel (*Falco sparverius*), were detected foraging in the area. While these species are not considered special status and are fairly common in Southern California, raptors as a group are considered special status, and Section 3503.5 of the California Fish and Game Code specifically prohibits the unauthorized take of raptors and raptor nests.

Implementation of the proposed project would not result in potential direct impacts to the special-status wildlife species that have moderate to high potential to occur because these species occur within the native habitat found on site, such as southern coast live oak riparian forest, and the vast majority of impacts are within disturbed areas. This native habitat provides foraging and nesting habitat for birds and limited habitat for mammal species.

5.1.4 Habitat Linkages/Wildlife Corridors

As described in Section 4.3.3, the project boundary does not function as a major habitat linkage or wildlife corridor but likely serves as a local wildlife corridor for common terrestrial and avian species. The proposed project would directly impact movement for urban-adapted species that use the oak trees and disturbed areas (e.g., raccoon, striped skunk, and coyote); however, these species can continue to use the areas outside of the proposed project for movement between habitat types. Wildlife species also tend to utilize drainages for movement. Impacts to the patches of southern coast live oak riparian forest are largely to the outer edges and canopy cover within the vegetation community, and potential impacts to wildlife movement would be minimal.

5.1.5 Jurisdictional Aquatic resources

Short-term, construction-related, or temporary direct impacts to jurisdictional aquatic resources would primarily result from construction activities. Clearing, trampling, or grading of vegetation outside designated construction zones could occur in the absence of avoidance and mitigation measures. These potential effects could damage individual plants and alter their ecosystem, creating gaps in vegetation that allow exotic, non-native plant species to become established, thus increasing soil compaction and leading to soil erosion.

Direct impacts to jurisdictional aquatic resources within the project boundary would occur as a result of road widening and grading activities. Table 2 in Section 4.3.4 summarizes the impacts to jurisdictional aquatic resources within the project boundary and totals 0.19 acre of southern coast live oak riparian forest subject to the jurisdiction of the CDFW.

5.2 Indirect Impacts

5.2.1 Vegetation Communities and Special-Status Plants

Short-Term Indirect Impacts

Potential short-term or temporary indirect impacts to vegetation communities within the project boundary would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including herbicides). Potential short-term indirect impacts could affect native vegetation communities within the project boundary. These impacts are described in detail below.

Generation of Fugitive Dust. Excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration, transpiration, increased penetration of phytotoxic gaseous pollutants, and increased incidence of pests and diseases.

Changes in Hydrology. Construction could result in hydrologic and water-quality-related impacts adjacent to and downstream of the project impacts. Hydrologic alterations include changes in flow rates and patterns in drainages and dewatering, which may affect adjacent downstream aquatic, wetland, and riparian vegetation communities. Water-quality impacts include chemical-compound pollution (fuel, oil, lubricants, paints, release agents, and other construction materials), erosion, and excessive sedimentation. Direct impacts, as described previously, can also remove native vegetation and increase runoff from Bear Valley Parkway, resulting in increased erosion and transport of surface matter into vegetation communities. Altered erosion, increased surface flows, and underground seepage can allow for the establishment of non-native plants. Changed hydrologic conditions can also alter seed bank characteristics and modify habitat for ground-dwelling fauna that may disperse seed.

Chemical Pollutants. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect native vegetation communities. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants.

Long-Term Indirect Impacts

Long-term (operation-related) or permanent indirect impacts could result from the proximity of the proposed project to adjacent native vegetation communities (i.e., southern coast live oak riparian forest) after construction. Permanent indirect impacts that could affect native vegetation

communities include chemical pollutants, altered hydrology, non-native invasive species, and increased human activity. Each of these potential indirect impacts is discussed below.

Chemical Pollutants. The effects of chemical pollutants on vegetation communities are described above. During landscaping activities, herbicides may be used to prevent vegetation from reoccurring around structures. However, weed control treatments shall include only legally permitted chemical, manual, and mechanical methods. Additionally, the herbicides used during landscaping activities will be contained within the project boundary.

Altered Hydrology. Water would be used for landscaping purposes that may alter the on-site hydrologic regime. These hydrologic alterations may affect special-status vegetation communities and special-status plant communities. Altered hydrology can allow for the establishment of non-native plants and invasion by Argentine ants (*Linepithema humile*), which can compete with native ant species that could be seed dispersers or plant pollinators. However, the water, and associated runoff, used during landscaping activities will be contained within vegetated swales, and long-term indirect impacts associated with altered hydrology are not expected.

Non-Native, Invasive Plant and Animal Species. Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. Bossard et al. (2000) list several adverse effects of non-native species in natural open areas, including exotic plant competition for light, water, and nutrients and the formation of thatches that block sunlight from reaching smaller native plants. The project proposes to include erosion-control hydroseed composed of non-invasive plant species to avoid these adverse impacts.

Increased Human Activity. The alignment project is proposed to meet the increased traffic use along Bear Valley Parkway. A safety fence will be installed along the riparian area and will minimize human disturbance in the native riparian habitat.

5.2.2 Special-Status Wildlife

Short-Term Indirect Impacts

Short-term, construction-related, or temporary indirect impacts to special-status wildlife species that have moderate or high potential to occur (see Appendix D) would primarily result from construction activities. Potential temporary indirect impacts could occur as a result of generation of fugitive dust, noise, chemical pollutants, increased human activity, and non-native animal species.

Generation of Fugitive Dust. Dust and applications for fugitive dust control can impact vegetation surrounding the limits of grading, resulting in changes in the community structure and function. These changes could result in impacts to suitable habitat for special-status wildlife species.

Noise. Construction-related noise could occur from equipment used during vegetation clearing and the construction of the road. Noise impacts can have a variety of indirect impacts on wildlife species, including increased stress, weakened immune systems, altered foraging behavior, displacement due to startle, degraded communication with conspecifics (e.g., masking), damaged hearing from extremely loud noises, and increased vulnerability to predators (Lovich and Ennen 2011; Brattstrom and Bondello 1983, cited in Lovich and Ennen 2011).

Chemical Pollutants. Accidental spills of hazardous chemicals could contaminate nearby surface waters and groundwater and indirectly impact wildlife species through poisoning or altering suitable habitat.

Increased Human Activity. Construction activities can deter wildlife from using habitat areas near the proposed project footprint and increase the potential for vehicle collisions.

Non-Native Animal Species. Trash from construction-related activities could attract invasive predators, such as ravens and coyotes, which could impact wildlife species within the project boundary.

Long-Term Indirect Impacts

Potential long-term or permanent indirect impacts on special-status wildlife species that have moderate or high potential to occur (see Appendix D) include non-native, invasive plant and animal species; increased human activity; and altered hydrology.

Non-Native, Invasive Plant and Animal Species. Invasive plant species that thrive in edge habitats are a well-documented problem in Southern California and throughout the United States. Bossard et al. (2000) list several adverse effects of non-native species in natural open areas, including the fact that exotic plants compete for light, water, and nutrients and can create a thatch that blocks sunlight from reaching smaller native plants. The project proposes to include erosion-control hydroseed composed of non-invasive plant species to avoid these adverse impacts. In addition, trash can attract invasive predators, such as ravens and coyotes, which could impact the wildlife species in the native habitat within and adjacent to the project boundary.

Increased Human Activity. The alignment project is proposed to meet the increased traffic use along Bear Valley Parkway. The riparian habitat on the east side of Bear Valley Parkway will be fenced in order to deter human activity.

Altered Hydrology. Water would be used for landscaping purposes that may alter the hydrologic regime of the adjacent stream channel. These hydrologic alterations may affect special-status wildlife species. Altered hydrology can allow for the establishment of non-native plants and invasion by Argentine ants, which can compete with native ant species that could be seed dispersers or plant pollinators. Changes in plant composition could affect the native vegetation communities and wildlife habitat. However, the water, and associated runoff, used during landscaping activities will be contained within vegetated swales, and long-term indirect impacts associated with altered hydrology are not expected.

5.2.3 Habitat Linkages/Movement Corridors

Short-Term Indirect Impacts

Short-term indirect impacts to habitat connectivity and wildlife corridors could result from lighting and increased human activity.

Increased Human Activity. Project construction would likely take place during the daytime and would not affect wildlife species such as mammals that are most active in evenings and nighttime. Wildlife species such as birds, rabbits, and lizards are active in the daytime but use a variety of habitats and could continue using other areas adjacent to the project boundary for wildlife movement.

Lighting. No nighttime lighting is planned during construction.

Long-Term Indirect Impacts

Long-term indirect impacts include fencing of the project boundary and lighting.

Fencing. A safety fence will be installed along the riparian area and will minimize human disturbance in the native riparian habitat. The fence will permit wildlife movement.

Lighting. Street lights are proposed as part of the project, but locations are unknown at this time.

5.2.4 Jurisdictional Aquatic Resources

Short-Term Indirect Impacts

Potential short-term or temporary indirect impacts to jurisdictional aquatic resources in the project boundary would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including herbicides). Potential short-term indirect impacts that could affect all the jurisdictional aquatic resources that occur on the project boundary are described in detail as follows.

Generation of Fugitive Dust. As stated previously, excessive dust can decrease the vigor and productivity of vegetation through effects on light, penetration, photosynthesis, respiration, and transpiration, as well as increased penetration of phytotoxic gaseous pollutants and increased incidence of pests and diseases.

Changes in Hydrology. Construction could result in hydrologic and water-quality-related impacts adjacent to and downstream of the construction area. The effects of changes in hydrology would be similar to those described in Section 5.2.1.

Chemical Pollutants. Erosion and chemical pollution (releases of fuel, oil, lubricants, paints, release agents, and other construction materials) may affect jurisdictional aquatic resources. The use of chemical pollutants can decrease the number of plant pollinators, increase the existence of non-native plants, and cause damage to and destruction of native plants.

Long-Term Indirect Impacts

Long-term (operation-related) or permanent indirect impacts could result from the proximity of the proposed project to adjacent jurisdictional aquatic resources after construction. Permanent indirect impacts that could affect jurisdictional aquatic resources include generation of fugitive dust, habitat fragmentation, chemical pollutants, altered hydrology, non-native invasive species, increased human activity, and alteration of the natural fire regime. Each of these potential indirect impacts is discussed below.

Chemical Pollutants. The effects of chemical pollutants on jurisdictional aquatic resources are described above.

Altered Hydrology. Water used for landscaping purposes may alter the on-site hydrologic regime. These hydrologic alterations may affect jurisdictional aquatic resources. However, the water, and associated runoff, used during landscaping activities will be contained

within vegetated swales, and long-term indirect impacts associated with altered hydrology are not expected.

Non-Native, Invasive Plant and Animal Species. The effects of chemical pollutants would be similar to those described in Section 5.2.1. The project proposes to include erosion control hydroseed composed of non-invasive plant species to avoid these adverse impacts.

Increased Human Activity. The effects of increased human activity would be similar to those described in Section 5.2.1. An increased human population increases the risk for damage to jurisdictional aquatic resources. However, the riparian area on the east side of Bear Valley Parkway will be fenced in order to deter human activity.

6 ANALYSIS OF SIGNIFICANCE

6.1 Explanation of Findings of Significance

Impacts to vegetation communities, special-status plants, special-status wildlife, and wildlife movement must be quantified and analyzed to determine whether such impacts are significant under CEQA. CEQA Guidelines Section 15064(b) states that an ironclad definition of "significant" effect is not possible, because the significance of an activity may vary with the setting. Appendix G of the CEQA Guidelines, however, does provide "examples of consequences which may be deemed to be a significant effect on the environment" (14 CCR 15064(e)). These effects include substantial effects on rare or endangered species of animal or plant or the habitat of the species. CEQA Guidelines Section 15065(a) is also helpful in defining whether a project may have "a significant effect on the environment." Under that section, a proposed project may have a significant effect on the environment if the project has the potential to (1) substantially degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below self-sustaining levels, (4) threaten to eliminate a plant or animal community, or (5) reduce the number or restrict the range of a rare or endangered plant or animal.

The following are the significance thresholds for biological resources provided in the CEQA Guidelines Appendix G environmental checklist, which states that a project could potentially have a significant effect if it:

- Has a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFG[3] or USFWS
- Has a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFG or USFWS
- Has a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means
- Interferes substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors or impedes the use of native wildlife nursery sites

[3] Although CDFG changed its name to CDFW in January 2013, this report retains language from the CEQA Guidelines Appendix G, which refers to the agency as CDFG. The two are synonymous.

- Conflicts with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance
- Conflicts with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan

The evaluation of whether or not an impact to a particular biological resource is significant must consider both the resource itself and the role of that resource in a regional context. Substantial impacts are those that contribute to, or result in, permanent loss of an important resource, such as a population of a rare plant or animal. Impacts may be important locally because they result in an adverse alteration of existing site conditions but considered not significant because they do not contribute substantially to the permanent loss of that resource regionally. The severity of an impact is the primary determinant of whether or not that impact can be mitigated to a less-than-significant level.

6.2 Vegetation Communities

Direct Impacts. The proposed project would result in 2.60 acres of on-site direct impacts to vegetation communities and land covers, including developed land, disturbed habitat, and southern live oak riparian forest. The majority of impacts would be to developed land and disturbed habitat, with minimal impacts to native vegetation communities. Impacts to 0.19 acre of southern live oak riparian forest are considered significant (**Impact BIO-1**).

Indirect Impacts. Potential short-term or temporary indirect impacts to southern coast live oak riparian forest in the project boundary would primarily result from construction activities and include impacts related to or resulting from the generation of fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including herbicides). It is assumed, however, that standard construction best management practices (BMPs) and construction-related minimization measures to control dust, erosion, and runoff will be implemented and will ameliorate these effects. Therefore, a significant impact would be avoided through these measures.

Long-term (operation-related) or permanent indirect impacts could result from the proximity of the proposed project to southern coast live oak riparian forest after construction. Permanent indirect impacts that could affect southern coast live oak riparian forest include chemical pollutants, altered hydrology, non-native invasive species, and increased human activity. The following project design features will ensure that these potentially significant impacts will be avoided: (1) fencing along the east side of Bear Valley Parkway will be included to preclude humans from traveling into the adjacent riparian areas; (2) landscaping (hydroseed) adjacent to preserved land will not include species listed as high or moderate on the California Invasive Plant Council (Cal-IPC 2013);

(3) proper selection, design, placement, and utilization of BMPs, including source control (i.e., signage and trash enclosures) and site design BMPs; and (4) attenuation of flows from increased runoff from the proposed project through energy dissipation.

6.3 Special-Status Plants

Direct Impacts. In determining significance, the significance threshold applied to plants is whether the project would have a substantial adverse effect on the special-status species. While no special-status plant species were detected on site during surveys, there is moderate potential for one species to occur (see Appendix C). Potential impacts to individual species are not considered significant because much of the impacted habitat is already disturbed and low quality, with minimal impacts to the outer edge of the riparian area on site. San Diego ambrosia is typically found within riparian areas. The proposed project would impact the outer edge of the riparian habitat on site; therefore, direct impacts to these species are not expected.

Indirect Impacts. Potential long-term or permanent indirect impacts to special-status plant species include non-native, invasive plant and animal species; increased human activity; and altered hydrology. The following project design features will ensure that these potentially significant impacts will be avoided: (1) fencing along the east side of Bear Valley Parkway will be included preclude humans from traveling into the areas to be preserved; (2) landscaping (hydroseed) adjacent to preserved land will not include species listed as high or moderate on the California Invasive Plant Council (Cal-IPC 2013); (3) proper selection, design, placement and utilization of BMPs, including source control, treatment control, and site design (i.e., landscaping) BMPs; and (4) attenuation of flows from increased runoff from site development through energy dissipation.

6.4 Special-Status Wildlife

Direct Impacts. In determining significance, the significance threshold applied to wildlife is whether the project would have a substantial adverse effect on the special-status species. While no special-status wildlife species were detected on site during surveys, there is potential for some species to occur (see Appendix D). It is unlikely that direct impacts would occur to these special-status species because the native habitat will be avoided and impacts would be limited to developed and disturbed areas. If construction activities occur during the bird-breeding season (typically February 1 through September 15), impacts to migratory birds or destruction of active migratory bird nests and/or eggs would be considered a significant impact because they are protected under the Migratory Bird Treaty Act (**Impact BIO-2**).

Indirect Impacts. Short-term, construction-related indirect impacts to special-status wildlife species that have moderate to high potential to occur (see Appendix D) that would primarily

result from construction activities, including fugitive dust, chemical pollutants, increased human activity, and non-native animal species would be avoided through the project design features listed in Sections 6.2 and 6.3. Potential indirect impacts from construction-related noise to nesting special-status birds or raptors would be considered a significant impact (**Impact BIO-3**).

Potential long-term or permanent indirect impacts to special-status wildlife species that have moderate or high potential to occur (see Appendix D) associated with non-native, invasive plant and animal species; increased human activity; and altered hydrology would be avoided through the project design features listed in Sections 6.2 and 6.3. Based on the minimal use of the impacted areas for wildlife movement through the site, habitat fragmentation would not be considered a significant impact.

6.5 Habitat Linkages/Wildlife Corridors

Direct Impacts. As mentioned previously, the project boundary does not serve as a major wildlife corridor or habitat linkage. Moreover, there would be minimal impacts to the southern live oak riparian forest within the project boundary (0.19 acre), and the impacts would primarily be to canopy cover and the outer edge along Bear Valley Parkway. Therefore, there would not be direct significant impacts to this minor local habitat linkage/wildlife corridor.

Indirect Impacts. Significant short-term indirect impacts to the minor local habitat linkage/wildlife corridor would be avoided through standard construction BMPs and construction-related minimization measures as discussed above. Potential long-term indirect impacts to will be avoided through the project design features as mentioned above in Section 5.2.

6.6 Jurisdictional Aquatic Resources

Direct Impacts. Jurisdictional aquatic resources, as described in Sections 3.2.4 and 4.3.4, are considered special status and regulated by state and federal agencies. The direct impacts to these jurisdictional areas are considered significant. Implementation of the proposed project would result in direct impacts to 0.19 acre of southern coast live oak riparian forest subject to CDFW jurisdiction. These impacts are considered significant (**Impact BIO-4**).

Indirect Impacts. Potential short-term indirect impacts to jurisdictional aquatic resources in the project boundary that would primarily result from construction activities, including fugitive dust; changes in hydrology resulting from construction, including sedimentation and erosion; and the introduction of chemical pollutants (including herbicides) would be avoided through the project design features listed in Sections 6.2 and 6.3.

Long-term indirect impacts to jurisdictional aquatic resources, including chemical pollutants, altered hydrology, non-native invasive species, increased human activity, and alteration of the natural fire regime would be avoided through the project design features listed in Sections 6.2 and 6.3. Because the jurisdictional resources on site include only the edges of southern coast live oak riparian forest, potential indirect impacts associated with fragmentation from other jurisdictional resources are not considered a significant impact.

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7 MITIGATION

7.1 Vegetation Communities

Impact BIO-1 (direct impacts to southern coast live oak riparian forest) will be mitigated through establishment or enhancement of riparian habitat or through a mitigation bank as described in **MM-1**.

MM-1 The project applicant shall establish/enhance southern coast live oak riparian forest (or similar vegetation community) at a suitable location at a 1:1 to 3:1 mitigation ratio.[4] If establishment or enhancement is unavailable or not practical, the project applicant shall secure mitigation credits at an approved mitigation bank at a 1:1 to 3:1 mitigation ratio. Details will be finalized as part of the permit application process.

7.2 Special-Status Plants

No mitigation is proposed for impacts to special-status plants because direct impacts to special-status plants are not expected to occur.

7.3 Special-Status Wildlife

Potential impacts **BIO-2** (direct impacts to nesting birds) and **BIO-3** (indirect impacts to nesting birds) will be mitigated through pre-construction nesting bird surveys and appropriate buffers around active nests regulated by the Migratory Bird Treaty Act (**MM-2**).

MM-2 If construction activity occurs during the breeding season (typically February 1 through September 15), a one-time biological survey for nesting bird species must be conducted within the project boundary and a 300-foot buffer within 72 hours prior to construction. This survey is necessary to assure avoidance of impacts to nesting raptors (e.g., Cooper's hawk and red-tailed hawk) and/or birds protected by the federal Migratory Bird Treaty Act. If any active nests are detected, the area will be flagged and mapped on the construction plans along with a minimum of a 25-foot buffer and up to a maximum of 300-foot buffer for raptors, as determined by the project biologist, and will be avoided until the nesting cycle is complete.

[4] Mitigation ratios for this habitat type are 1:1 to 3:1 according to the Table 5-2 in the *Public Review Draft Escondido Subarea Plan* (Ogden and CBI 2001). The project boundary lies outside any Focused Planning Area.

7.4 Habitat Linkages/Wildlife Corridors

No mitigation is proposed for impacts to habitat linkages/wildlife corridors because the proposed impacts are not considered significant.

7.5 Jurisdictional Aquatic Resources

Impact BIO-4 (impacts to jurisdictional aquatic resources) will be mitigated through establishment/enhancement of southern coast live oak riparian forest (or similar vegetation community) at a suitable location at a 1:1 to 3:1 mitigation ratio or in an off-site mitigation bank (see **MM-1**), and compliance with state regulatory agencies (see **MM-3**), thus resulting in no net loss of acreage, function, and value of these resources.

MM-3 To comply with state regulations for impacts to riparian habitat, the following agency permit is required, or verification that it is not required shall be obtained:

- A Section 1602 Streambed Alteration Agreement issued by the California Department of Fish and Wildlife for all project-related disturbances of any streambed and associated riparian habitat.

Permits are required to be obtained by the applicant before the impact to the resources.

8 ACKNOWLEDGMENTS

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APPENDIX A

Vascular Plant Species
Observed within the Project Boundary

APPENDIX A
Vascular Plant Species Observed within the Project Boundary

VASCULAR SPECIES

MONOCOTS

AGAVACEAE—AGAVE FAMILY

Yucca schidigera—Mojave yucca

ARECACEAE—PALM FAMILY

* *Phoenix dactylifera*—date palm

* *Syagrus romanzoffiana*—queen palm

* *Washingtonia robusta*—Washington fan palm

POACEAE—GRASS FAMILY

* *Avena barbata*—slender oat

* *Bromus diandrus*—ripgut brome

* *Pennisetum setaceum*—crimson fountaingrass

* *Schismus barbatus*—common Mediterranean grass

EUDICOTS

ADOXACEAE—MUSKROOT FAMILY

Sambucus nigra—black elderberry

ANACARDIACEAE—SUMAC OR CASHEW FAMILY

Toxicodendron diversilobum—Pacific poison oak

* *Schinus molle*—Peruvian peppertree

ASTERACEAE—SUNFLOWER FAMILY

Artemisia californica—coastal sagebrush

* *Carduus pycnocephalus*—Italian plumeless thistle

* *Centaurea melitensis*—Maltese star-thistle

* *Erigeron bonariensis*—asthmaweed

Pseudognaphalium sp. (dead)

BRASSICACEAE—MUSTARD FAMILY

* *Sisymbrium irio*—London rocket

* *Brassica nigra*—black mustard

* *Hirschfeldia incana*—shortpod mustard

FAGACEAE—OAK FAMILY

Quercus agrifolia—California live oak

GERANIACEAE—GERANIUM FAMILY

Geranium sp.

LAMIACEAE—MINT FAMILY

* *Marrubium vulgare*—horehound

LYTHRACEAE—LOOSESTRIFE FAMILY

* *Punica granatum*—pomegranate

OLEACEAE—OLIVE FAMILY

Fraxinus velutina—velvet ash

POLYGONACEAE—BUCKWHEAT FAMILY

Eriogonum fasciculatum—Eastern Mojave buckwheat

ROSACEAE—ROSE FAMILY

Malus sp.

Prunus sp.

SALICACEAE—WILLOW FAMILY

Salix tracyi—Tracy's willow

SOLANACEAE—NIGHTSHADE FAMILY

* *Nicotiana glauca*—tree tobacco

* signifies introduced (non-native) species

APPENDIX B

Cumulative List of Wildlife Species Observed within the Project Boundary

APPENDIX B
Cumulative List of Wildlife Species Observed within the Project Boundary

BIRD

BUSHTITS

AEGITHALIDAE—LONG-TAILED TITS AND BUSHTITS

Psaltriparus minimus—bushtit

EMBERIZINES

EMBERIZIDAE—EMBERIZIDS

Pipilo maculatus—spotted towhee

FALCONS

FALCONIDAE—CARACARAS AND FALCONS

Falco sparverius—American kestrel

FINCHES

FRINGILLIDAE—FRINGILLINE AND CARDUELINE FINCHES AND ALLIES

Spinus psaltria—lesser goldfinch

HAWKS

ACCIPITRIDAE—HAWKS, KITES, EAGLES, AND ALLIES

Accipiter cooperii—Cooper's hawk

Buteo jamaicensis—red-tailed hawk

HUMMINGBIRDS

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

JAYS, MAGPIES AND CROWS

CORVIDAE—CROWS AND JAYS

*Aphelocoma californ*ica—California scrub-jay

Corvus brachyrhynchos—American crow

MOCKINGBIRDS AND THRASHERS

MIMIDAE—MOCKINGBIRDS AND THRASHERS

Mimus polyglottos—northern mockingbird

INVERTEBRATE

BUTTERFLIES

PIERIDAE—WHITES AND SULFURS

Pontia protodice—checkered white

MAMMAL

CANIDS

CANIDAE—WOLVES AND FOXES

Canis latrans—coyote

OPOSSUMS

DIDELPHIDAE—NEW WORLD OPOSSUMS

* *Didelphis virginiana*—Virginia opossum

SQUIRRELS

SCIURIDAE—SQUIRRELS

Spermophilus (Otospermophilus) beecheyi—California ground squirrel

REPTILE

LIZARDS

PHRYNOSOMATIDAE—IGUANID LIZARDS

Uta stanburiana—common side-blotched lizard

* signifies introduced (non-native) species

APPENDIX C

Special-Status Plant Species Potential to Occur

APPENDIX C
Special-Status Plant Species Potential to Occur

Scientific Name	Common Name	Status[1] Federal/State/CRPR/ Escondido Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Abronia maritima	red sand-verbena	None/None/4.2/None	Coastal dunes/perennial herb/Feb–Nov/0–328	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Acanthomintha ilicifolia	San Diego thorn-mint	FT/SE/1B.1/Covered	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay, openings/annual herb/Apr–June/33–3150	Not expected to occur. No coastal scrub or chaparral on site and suitable clay soils are absent. Species known to occur on Las Posas, Olivenhain, Redding, Huerhuero, Altamont, Ciendeba, and Linne soils (75 FR 50454 50496). Species known to occur within the vicinity.[2]
Acmispon prostratus	Nuttall's acmispon	None/None/1B.1/None	Coastal dunes, coastal scrub (sandy)/annual herb/Mar–June (July)/0–33	Not expected to occur. The site is outside of the species' known elevation range.
Adolphia californica	California adolphia	None/None/2B.1/None	Chaparral, coastal scrub, valley and foothill grassland; clay/perennial deciduous shrub/Dec–May/148–2428	Not expected to occur. The site is located within the species' known elevation range; however, suitable habitat is limited in extent on site and is disturbed. Shrub would have been observed during surveys if present. Species is known to occur within the vicinity.[2]
Agave shawii var. *shawii*	Shaw's agave	None/None/2B.1/None	Coastal bluff scrub, coastal scrub/perennial leaf succulent/Sep–May/33–394	Not expected to occur. The site is outside of the species' known elevation range.
Ambrosia pumila	San Diego ambrosia	FE/None/1B.1/ Covered	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; sandy loam or clay, often in disturbed areas, sometimes alkaline/perennial rhizomatous herb/Apr–Oct/66–1362	Moderate potential to occur. Suitable sandy loam soils on site and the species is known to occur along drainages and river channels in western San Diego County (75 FR 74546 74604). Species is known to occur within the vicinity.[2] Site visit was conducted when the species would be detected; the species was not observed.
Aphanisma blitoides	aphanisma	None/None/1B.2/None	Coastal bluff scrub, coastal dunes, coastal scrub; sandy or gravelly/annual herb/Mar–June/3–1001	Low potential to occur. The site is located within the species' known elevation range; however, there is no suitable habitat.

Scientific Name	Common Name	Status[1] Federal/State/CRPR/ Escondido Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Arctostaphylos glandulosa ssp. *crassifolia*	Del Mar manzanita	FE/None/1B.1/None	Chaparral (maritime, sandy)/perennial evergreen shrub/Dec–June/0–1198	Not expected to occur. No suitable vegetation present.
Arctostaphylos rainbowensis	Rainbow manzanita	None/None/1B.1/None	Chaparral/perennial evergreen shrub/Dec–Mar/673–2198	Not expected to occur. No suitable vegetation present and evergreen shrub would have been observed during surveys if present.
Artemisia palmeri	San Diego sagewort	None/None/4.2/None	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; sandy, mesic/perennial deciduous shrub/(Feb) May–Sep/49–3002	Low potential to occur. Perennial shrub would have been observed during surveys. Species is known to occur within the vicinity.[2]
Asplenium vespertinum	western spleenwort	None/None/4.2/None	Chaparral, cismontane woodland, coastal scrub; rocky/perennial rhizomatous herb/Feb–June/591–3281	Low potential to occur. The site is located within the species' known elevation range however, suitable vegetation is not present and the site lacks rocky habitat.
Astragalus oocarpus	San Diego milk-vetch	None/None/1B.2/None	Chaparral (openings), cismontane woodland/perennial herb/May–Aug/1001–5000	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Astragalus tener var. *titi*	coastal dunes milk-vetch	FE/SE/1B.1/None	Coastal bluff scrub (sandy), coastal dunes, coastal prairie (mesic); often vernally mesic areas/annual herb/Mar–May/3–164	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Atriplex coulteri	Coulter's saltbush	None/None/1B.2/None	Coastal bluff scrub, coastal dunes, coastal scrub, valley and foothill grassland; alkaline or clay/perennial herb/Mar–Oct/10–1509	Not expected to occur. The site is located within the species' known elevation range; however, there is no suitable vegetation or soils found on site.
Atriplex pacifica	South Coast saltscale	None/None/1B.2/None	Coastal bluff scrub, coastal dunes, coastal scrub, playas/annual herb/Mar–Oct/0–459	Not expected to occur. The site is outside of the species' known elevation range.
Atriplex parishii	Parish's brittlescale	None/None/1B.1/None	Chenopod scrub, playas, vernal pools; alkaline/annual herb/June–Oct/82–6234	Not expected to occur. No suitable vegetation present.
Baccharis vanessae	Encinitas baccharis	FT/SE/1B.1/Covered	Chaparral (maritime), cismontane woodland; sandstone/perennial deciduous shrub/Aug–Nov/197–2362	Not expected to occur. Suitable vegetation is present; however, site lacks suitable soils and shrub would have been observed during surveys if present. Species is known to occur within the vicinity.[2]

Scientific Name	Common Name	Status[1] Federal/State/CRPR/ Escondido Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Bergerocactus emoryi	golden-spined cereus	None/None/2B.2/None	Closed-cone coniferous forest, chaparral, coastal scrub; sandy/perennial stem succulent/May–June/10–1296	Not expected to occur. No suitable habitat found on site.
Bloomeria clevelandii	San Diego goldenstar	None/None/1B.1/Covered	Chaparral, coastal scrub, valley and foothill grassland, vernal pools; clay/perennial bulbiferous herb/Apr–May/164–1526	Not expected to occur. No suitable habitat or clay soils found on site. Species is known to occur within the vicinity.[2]
Brodiaea filifolia	thread-leaved brodiaea	FT/SE/1B.1/Covered	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools; often clay/perennial bulbiferous herb/Mar–June/82–3675	Low potential to occur. The site is located within the species' known elevation range and species is known to occur on Fallbrook soils; however, there is no suitable habitat found on site. Species is known to occur within the vicinity.[2]
Brodiaea orcuttii	Orcutt's brodiaea	None/None/1B.1/Covered	Closed-cone coniferous forest, chaparral, cismontane woodland, meadows and seeps, valley and foothill grassland, vernal pools; mesic, clay, sometimes serpentinite/perennial bulbiferous herb/May–July/98–5551	Low potential to occur. The site is located within the species' known elevation range however, suitable vernal pools are absent.
Calandrinia breweri	Brewer's calandrinia	None/None/4.2/None	Chaparral, coastal scrub; sandy or loamy, disturbed sites and burns/annual herb/Mar–June/33–4003	Low potential to occur. The site is located within the species' known elevation range, suitable soils are present and species is found within disturbed sites. However, it has not been documented in this area.[3]
California macrophylla	round-leaved filaree	None/None/1B.2/None	Cismontane woodland, valley and foothill grassland; clay/annual herb/Mar–May/49–3937	Low potential to occur. The site is located within the species' known elevation range and suitable woodland is present; however, site lacks suitable soils.
Calochortus dunnii	Dunn's mariposa lily	None/SR/1B.2/None	Closed-cone coniferous forest, chaparral, valley and foothill grassland; gabbroic or metavolcanic, rocky/perennial bulbiferous herb/(Feb) Apr–June/607–6004	Not expected to occur. No suitable vegetation present. Species is known to occur within the vicinity.[2]
Camissoniopsis lewisii	Lewis' evening-primrose	None/None/3/None	Coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, valley and foothill grassland; sandy or clay/annual herb/Mar–May (June)/0–984	Low potential to occur. The site is located within the species' known elevation range and suitable vegetation is present; however, suitable vegetation and soils are absent.

Scientific Name	Common Name	Status[1] Federal/State/CRPR/ Escondido Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Ceanothus cyaneus	Lakeside ceanothus	None/None/1B.2/None	Closed-cone coniferous forest, chaparral/perennial evergreen shrub/Apr–June/771–2477	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Evergreen shrub would have been observed during surveys if present.
Ceanothus verrucosus	wart-stemmed ceanothus	None/None/2B.2/Covered	Chaparral/perennial evergreen shrub/Dec–May/3–1247	Not expected to occur. No suitable vegetation present and evergreen shrub would have been observed during surveys if present. Species is known to occur within the vicinity.[2]
Centromadia parryi ssp. *australis*	southern tarplant	None/None/1B.1/None	Marshes and swamps (margins), valley and foothill grassland (vernally mesic), vernal pools/annual herb/May–Nov/0–1575	Low potential to occur. Site is located within the species' known elevation range; however, suitable vegetation is absent. Species is known to occur within the vicinity.[2]
Centromadia pungens ssp. *laevis*	smooth tarplant	None/None/1B.1/None	Chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grassland; alkaline/annual herb/Apr–Sep/0–2100	Low potential to occur. No suitable habitat found on site. Species is known to occur within the vicinity.[2]
Chaenactis glabriuscula var. *orcuttiana*	Orcutt's pincushion	None/None/1B.1/None	Coastal bluff scrub (sandy), coastal dunes/annual herb/Jan–Aug/0–328	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Chamaebatia australis	southern mountain misery	None/None/4.2/None	Chaparral (gabbroic or metavolcanic)/perennial evergreen shrub/Nov–May/984–3346	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present. Evergreen shrub would have been observed during surveys if present.
Chloropyron maritimum ssp. *maritimum*	salt marsh bird's-beak	FE/SE/1B.2/None	Coastal dunes, marshes and swamps (coastal salt)/annual herb (hemiparasitic)/May–Oct/0–98	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Chorizanthe leptotheca	Peninsular spineflower	None/None/4.2/None	Chaparral, coastal scrub, lower montane coniferous forest; alluvial fan, granitic/annual herb/May–Aug/984–6234	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Chorizanthe orcuttiana	Orcutt's spineflower	FE/SE/1B.1/None	Closed-cone coniferous forest, chaparral (maritime), coastal scrub; sandy openings/annual herb/Mar–May/10–410	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

Scientific Name	Common Name	Status[1] Federal/State/CRPR/ Escondido Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Chorizanthe polygonoides var. *longispina*	long-spined spineflower	None/None/1B.2/None	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools; often clay/annual herb/Apr–July/98–5020	Not expected to occur. No suitable vegetation or soils found on site.
Cistanthe maritima	seaside cistanthe	None/None/4.2/None	Coastal bluff scrub, coastal scrub, valley and foothill grassland; sandy/annual herb/(Feb) Mar–June (Aug)/16–984	Not expected to occur. No suitable habitat found on site.
Clarkia delicata	delicate clarkia	None/None/1B.2/None	Chaparral, cismontane woodland; often gabbroic/annual herb/Apr–June/771–3281	Low potential to occur. There is oak woodland present; however, the site is slightly outside of the species' known elevation range. Species is known to occur within the vicinity.[2]
Clinopodium chandleri	San Miguel savory	None/None/1B.2/None	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland; rocky, gabbroic, or metavolcanic/perennial shrub/Mar–July/394–3527	Not expected to occur. The site is located within the species' known elevation range and suitable woodland is present; however, there are no suitable soils found on site. Shrub would have been observed during surveys if present.
Comarostaphylis diversifolia ssp. *diversifolia*	summer holly	None/None/1B.2/Covered	Chaparral, cismontane woodland/perennial evergreen shrub/Apr–June/98–2592	Not expected to occur. Oak woodland is present and species is known to occur within the vicinity[2]; however, evergreen shrub would have been observed during surveys if present.
Convolvulus simulans	small-flowered morning-glory	None/None/4.2/None	Chaparral (openings), coastal scrub, valley and foothill grassland; clay, serpentinite seeps/annual herb/Mar–July/98–2297	Low potential to occur. The site is located within the species' known elevation range; however, there is no suitable habitat present.
Corethrogyne filaginifolia var. *incana*	San Diego sand aster	None/None/1B.1/None	Coastal bluff scrub, chaparral, coastal scrub/perennial herb/June–Sep/10–377	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
Corethrogyne filaginifolia var. *linifolia*	Del Mar Mesa sand aster	None/None/1B.1/None	Coastal bluff scrub, chaparral (maritime, openings), coastal scrub; sandy/perennial herb/May–Sep/49–492	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
Cylindropuntia californica var. *californica*	snake cholla	None/None/1B.1/None	Chaparral, coastal scrub/perennial stem succulent/Apr–May/98–492	Not expected to occur. The site is outside of the species' known elevation range and conspicuous stem succulent would have been observed during surveys if present.

Scientific Name	Common Name	Status[1] Federal/State/CRPR/ Escondido Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Deinandra paniculata	paniculate tarplant	None/None/4.2/None	Coastal scrub, valley and foothill grassland, vernal pools; usually vernally mesic, sometimes sandy/annual herb/Apr–Nov/82–3084	Low potential to occur. The site is located within the species' known elevation range; however, there is no suitable habitat present.
Dichondra occidentalis	western dichondra	None/None/4.2/None	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/perennial rhizomatous herb/(Jan) Mar–July/164–1640	Not expected to occur. The site is located within the species' known elevation range; however, there is no suitable vegetation present. Species is known to occur within the vicinity.[2]
Dudleya brevifolia	short-leaved dudleya	None/SE/1B.1/None	Chaparral (maritime, openings), coastal scrub; Torrey sandstone/perennial herb/Apr–May/98–820	Low potential to occur. The site is located within the species' known elevation range; however, there is no suitable habitat present.
Dudleya variegata	variegated dudleya	None/None/1B.2/Covered	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools; clay/perennial herb/Apr–June/10–1903	Low potential to occur. The site is located within the species' known elevation range; however, there is no suitable habitat present. Species is known to occur within the vicinity.[2]
Dudleya viscida	sticky dudleya	None/None/1B.2/Covered	Coastal bluff scrub, chaparral, cismontane woodland, coastal scrub; rocky/perennial herb/May–June/33–1804	Not expected to occur. No suitable soils found on site. Species is not known to occur within the vicinity.[2]
Ericameria palmeri var. *palmeri*	Palmer's goldenbush	None/None/1B.1/None	Chaparral, coastal scrub; mesic/perennial evergreen shrub/(July) Sep–Nov/98–1969	Not expected to occur. Limited suitable vegetation found on site and conspicuous evergreen shrub would have been detected during surveys. Species is known to occur within the vicinity.[2]
Eryngium aristulatum var. *parishii*	San Diego button-celery	FE/SE/1B.1/None	Coastal scrub, valley and foothill grassland, vernal pools; mesic/annual / perennial herb/Apr–June/66–2034	Not expected to occur. No suitable vernal pools found on site. Species is known to occur within the vicinity.[2]
Euphorbia misera	cliff spurge	None/None/2B.2/None	Coastal bluff scrub, coastal scrub, Mojavean desert scrub; rocky/perennial shrub/Dec–Aug (Oct)/33–1640	Not expected to occur. No suitable vegetation or suitable soils found on site.
Ferocactus viridescens	San Diego barrel cactus	None/None/2B.1/Covered	Chaparral, coastal scrub, valley and foothill grassland, vernal pools/perennial stem succulent/May–June/10–1476	Not expected to occur. No suitable habitat found on site and conspicuous stem succulent would have been observed during surveys. Species is known to occur within the vicinity.[2]

Scientific Name	Common Name	Status[1] Federal/State/CRPR/ Escondido Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Frankenia palmeri	Palmer's frankenia	None/None/2B.1/None	Coastal dunes, marshes and swamps (coastal salt), playas/perennial herb/May–July/0–33	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Geothallus tuberosus	Campbell's liverwort	None/None/1B.1/None	Coastal scrub (mesic), vernal pools; soil/ephemeral liverwort/N.A./33–1969	Not expected to occur. No vernal pools found on site.
Githopsis diffusa ssp. *filicaulis*	Mission Canyon bluecup	None/None/3.1/None	Chaparral (mesic, disturbed areas)/annual herb/Apr–June/1476–2297	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Grindelia hallii	San Diego gumplant	None/None/1B.2/None	Chaparral, lower montane coniferous forest, meadows and seeps, valley and foothill grassland/perennial herb/May–Oct/607–5725	Not expected to occur. No suitable vegetation present.
Harpagonella palmeri	Palmer's grapplinghook	None/None/4.2/None	Chaparral, coastal scrub, valley and foothill grassland; clay/annual herb/Mar–May/66–3133	Not expected to occur. No suitable vegetation and no suitable soils found on site.
Hazardia orcuttii	Orcutt's hazardia	None/ST/1B.1/None	Chaparral (maritime), coastal scrub; often clay/perennial evergreen shrub/Aug–Oct/262–279	Not expected to occur. The site is outside of the species' known elevation range.
Heterotheca sessiliflora ssp. *sessiliflora*	beach goldenaster	None/None/1B.1/None	Chaparral (coastal), coastal dunes, coastal scrub/perennial herb/Mar–Dec/0–4019	Not expected to occur. No suitable coastal dune habitat found on site No suitable habitat found on site; species not known to occur in the vicinity.[2]
Holocarpha virgata ssp. *elongata*	graceful tarplant	None/None/4.2/None	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland/annual herb/May–Nov/197–3609	Low potential to occur. The site is located within the species' known elevation range; however, no suitable vegetation is present. Species is known to occur within the vicinity.[2]
Hordeum intercedens	vernal barley	None/None/3.2/None	Coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions), vernal pools/annual herb/Mar–June/16–3281	Not expected to occur. No coastal dune habitat or vernal pools found on site.
Horkelia truncata	Ramona horkelia	None/None/1B.3/None	Chaparral, cismontane woodland; clay, gabbroic/perennial herb/May–June/1312–4265	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Isocoma menziesii var. *decumbens*	decumbent goldenbush	None/None/1B.2/None	Chaparral, coastal scrub (sandy, often in disturbed areas)/perennial shrub/Apr–Nov/33–443	Not expected to occur. The site is outside of the species' known elevation range.
Iva hayesiana	San Diego marsh-elder	None/None/2B.2/Covered	Marshes and swamps, playas/perennial herb/Apr–Oct/33–1640	Not expected to occur. No suitable vegetation present. Species is known to occur within the vicinity.[2]

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Juncus acutus ssp. *leopoldii*	southwestern spiny rush	None/None/4.2/None	Coastal dunes (mesic), meadows and seeps (alkaline seeps), marshes and swamps (coastal salt)/perennial rhizomatous herb/(Mar) May–June/10–2953	Not expected to occur. No suitable vegetation present. Species is known to occur within the vicinity.[2]
Lasthenia glabrata ssp. *coulteri*	Coulter's goldfields	None/None/1B.1/None	Marshes and swamps (coastal salt), playas, vernal pools/annual herb/Feb–June/3–4003	Not expected to occur. No suitable vegetation present.
Lepechinia cardiophylla	heart-leaved pitcher sage	None/None/1B.2/None	Closed-cone coniferous forest, chaparral, cismontane woodland/perennial shrub/Apr–July/1706–4495	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Lepechinia ganderi	Gander's pitcher sage	None/None/1B.3/None	Closed-cone coniferous forest, chaparral, coastal scrub, valley and foothill grassland; gabbroic or metavolcanic/perennial shrub/June–July/1001–3297	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable habitat present.
Lepidium virginicum var. *robinsonii*	Robinson's pepper-grass	None/None/4.3/None	Chaparral, coastal scrub/annual herb/Jan–July/3–2904	Low potential to occur. No suitable vegetation found on site is in a disturbed state. Species is known to occur within the vicinity.[2]
Leptosiphon grandiflorus	large-flowered leptosiphon	None/None/4.2/None	Coastal bluff scrub, closed-cone coniferous forest, cismontane woodland, coastal dunes, coastal prairie, coastal scrub, valley and foothill grassland; usually sandy/annual herb/Apr–Aug/16–4003	Low potential to occur. No suitable vegetation and soils found on site, but species is not known to occur within the vicinity.[2]
Leptosyne maritima	sea dahlia	None/None/2B.2/None	Coastal bluff scrub, coastal scrub/perennial herb/Mar–May/16–492	Not expected to occur. The site is outside of the species' known elevation range.
Lycium californicum	California box-thorn	None/None/4.2/None	Coastal bluff scrub, coastal scrub/perennial shrub/(Dec) Mar–Aug/16–492	Not expected to occur. The site is outside of the species' known elevation range.
Microseris douglasii ssp. *platycarpha*	small-flowered microseris	None/None/4.2/None	Cismontane woodland, coastal scrub, valley and foothill grassland, vernal pools; clay/annual herb/Mar–May/49–3510	Low potential to occur. No suitable vegetation or soils found on site.
Mimulus diffusus	Palomar monkeyflower	None/None/4.3/None	Chaparral, lower montane coniferous forest; sandy or gravelly/annual herb/Apr–June/4003–6004	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Monardella hypoleuca ssp. *lanata*	felt-leaved monardella	None/None/1B.2/None	Chaparral, cismontane woodland/perennial rhizomatous herb/June–Aug/984–5167	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.

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Monardella viminea	willowy monardella	FE/SE/1B.1/None	Chaparral, coastal scrub, riparian forest, riparian scrub, riparian woodland; alluvial ephemeral washes/perennial herb/June–Aug/164–738	Low potential to occur. The site is located within the species' known elevation range; however. no suitable vegetation is found on site.
Myosurus minimus ssp. *apus*	little mousetail	None/None/3.1/None	Valley and foothill grassland, vernal pools (alkaline)/annual herb/Mar–June/66–2100	Not expected to occur. No suitable vegetation present.
Navarretia fossalis	spreading navarretia	FT/None/1B.1/None	Chenopod scrub, marshes and swamps (assorted shallow freshwater), playas, vernal pools/annual herb/Apr–June/98–2149	Not expected to occur. No suitable marshes or swamps found on site.
Nemacaulis denudata var. *denudata*	coast woolly-heads	None/None/1B.2/None	Coastal dunes/annual herb/Apr–Sep/0–328	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Nolina cismontana	chaparral nolina	None/None/1B.2/None	Chaparral, coastal scrub; sandstone or gabbro/perennial evergreen shrub/(Mar) May–July/459–4183	Not expected to occur. No suitable vegetation or soils found on site and perennial shrub would have been observed during surveys.
Ophioglossum californicum	California adder's-tongue	None/None/4.2/None	Chaparral, valley and foothill grassland, vernal pools (margins); mesic/perennial rhizomatous herb/(Dec) Jan–June/197–1722	Not expected to occur. No suitable vegetation present.
Orcuttia californica	California Orcutt grass	FE/SE/1B.1/None	Vernal pools/annual herb/Apr–Aug/49–2165	Not expected to occur. No suitable vegetation present.
Orobanche parishii ssp. *brachyloba*	short-lobed broomrape	None/None/4.2/None	Coastal bluff scrub, coastal dunes, coastal scrub; sandy/perennial herb (parasitic)/Apr–Oct/10–1001	Low potential to occur. No suitable habitat found on site.
Packera ganderi	Gander's ragwort	None/SR/1B.2/None	Chaparral (burns, gabbroic outcrops)/perennial herb/Apr–June/1312–3937	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Pentachaeta aurea ssp. *aurea*	golden-rayed pentachaeta	None/None/4.2/None	Chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, riparian woodland, valley and foothill grassland/annual herb/Mar–July/262–6070	Low potential to occur. The site is located within the species' known elevation range; however, no suitable vegetation is present. Species is known to occur within the vicinity.[2]
Phacelia ramosissima var. *austrolitoralis*	south coast branching phacelia	None/None/3.2/None	Chaparral, coastal dunes, coastal scrub, marshes and swamps (coastal salt); sandy, sometimes rocky/perennial herb/Mar–Aug/16–984	Low potential to occur. No suitable habitat found on site.
Phacelia stellaris	Brand's star phacelia	None/None/1B.1/None	Coastal dunes, coastal scrub/annual herb/Mar–June/3–1312	Low potential to occur. No suitable habitat found on site.

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Pinus torreyana ssp. *torreyana*	Torrey pine	None/None/1B.2/None	Closed-cone coniferous forest, chaparral; sandstone/perennial evergreen tree/N.A./246–525	Not expected to occur. No suitable vegetation present or soils present. Evergreen tree would have been observed during surveys if present.
Piperia cooperi	chaparral rein orchid	None/None/4.2/None	Chaparral, cismontane woodland, valley and foothill grassland/perennial herb/Mar–June/49–5200	Low potential to occur. No suitable vegetation present and the species is not known to occur within the vicinity.[2]
Pogogyne abramsii	San Diego mesa mint	FE/SE/1B.1/None	Vernal pools/annual herb/Mar–July/295–656	Not expected to occur. No suitable vegetation present.
Pogogyne nudiuscula	Otay Mesa mint	FE/SE/1B.1/None	Vernal pools/annual herb/May–July/295–820	Not expected to occur. No suitable vegetation present.
Polygala cornuta var. *fishiae*	Fish's milkwort	None/None/4.3/None	Chaparral, cismontane woodland, riparian woodland/perennial deciduous shrub/May–Aug/328–3281	Low potential to occur. The site is located within the species' known elevation range; however, there is no suitable vegetation on site and perennial shrub would have been observed during surveys.
Psilocarphus brevissimus var. *multiflorus*	Delta woolly-marbles	None/None/4.2/None	Vernal pools/annual herb/May–June/33–1640	Not expected to occur. No suitable vegetation present.
Quercus cedrosensis	Cedros Island oak	None/None/2B.2/None	Closed-cone coniferous forest, chaparral, coastal scrub/perennial evergreen tree/Apr–May/837–3150	Not expected to occur. The site is outside of the species' known elevation range. Evergreen tree would have been observed during surveys if present.
Quercus dumosa	Nuttall's scrub oak	None/None/1B.1/None	Closed-cone coniferous forest, chaparral, coastal scrub; sandy, clay loam/perennial evergreen shrub/Feb–Apr (Aug)/49–1312	Not expected to occur. No suitable vegetation present. Evergreen shrub would have been observed during surveys.
Quercus engelmannii	Engelmann oak	None/None/4.2/Covered	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland/perennial deciduous tree/Mar–June/164–4265	Not expected to occur. The site is located within species' known elevation range; however, there is no suitable vegetation present and deciduous tree would have been observed during surveys. Species is known to occur within the vicinity.[2]
Salvia munzii	Munz's sage	None/None/2B.2/None	Chaparral, coastal scrub/perennial evergreen shrub/Feb–Apr/377–3494	Low potential to occur. No suitable vegetation found on site.

Scientific Name	Common Name	Status[1] Federal/State/CRPR/ Escondido Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Selaginella cinerascens	ashy spike-moss	None/None/4.1/None	Chaparral, coastal scrub/perennial rhizomatous herb/N.A./66–2100	Not expected to occur. Species is known to occur within the vicinity[2]; however, there is no suitable vegetation found on site.
Senecio aphanactis	chaparral ragwort	None/None/2B.2/None	Chaparral, cismontane woodland, coastal scrub; sometimes alkaline/annual herb/Jan–Apr/49–2625	Not expected to occur. No suitable vegetation present or soils found on site. Species not known from within the vicinity.[2]
Sphaerocarpos drewei	bottle liverwort	None/None/1B.1/None	Chaparral, coastal scrub; openings, soil/ephemeral liverwort/N.A./295–1969	Not expected to occur. There is no suitable vegetation found on site and the species is not known from within the vicinity.[2]
Stemodia durantifolia	purple stemodia	None/None/2B.1/None	Sonoran desert scrub (often mesic, sandy)/perennial herb/Jan–Dec/591–984	Not expected to occur. No suitable vegetation present.
Stipa diegoensis	San Diego County needle grass	None/None/4.2/None	Chaparral, coastal scrub; rocky, often mesic/perennial herb/Feb–June/33–2625	Not expected to occur. No suitable vegetation or soils found on site.
Suaeda esteroa	estuary seablite	None/None/1B.2/None	Marshes and swamps (coastal salt)/perennial herb/May–Oct (Jan)/0–16	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Suaeda taxifolia	woolly seablite	None/None/4.2/None	Coastal bluff scrub, coastal dunes, marshes and swamps (margins of coastal salt)/perennial evergreen shrub/Jan–Dec/0–164	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Tetracoccus dioicus	Parry's tetracoccus	None/None/1B.2/Covered	Chaparral, coastal scrub/perennial deciduous shrub/Apr–May/541–3281	Not expected to occur. No suitable vegetation is present. Shrub would have been observed during surveys if present.
Texosporium sancti-jacobi	woven-spored lichen	None/None/3/None	Chaparral (openings); on soil, small mammal pellets, dead twigs, and on *Selaginella* spp./crustose lichen (terricolous)/N.A./951–2165	Not expected to occur. The site is outside of the species' known elevation range and there is no suitable vegetation present.
Triquetrella californica	coastal triquetrella	None/None/1B.2/None	Coastal bluff scrub, coastal scrub; soil/moss/N.A./33–328	Not expected to occur. The site is outside of the species' known elevation range.
Viguiera laciniata	San Diego County viguiera	None/None/4.2/None	Chaparral, coastal scrub/perennial shrub/Feb–June (Aug)/197–2461	Not expected to occur. There is no suitable vegetation found on site and conspicuous shrub would have been detected. Species is known to occur within the vicinity.[2]

Scientific Name	Common Name	Status[1] Federal/State/CRPR/ Escondido Subarea Plan	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur[2]
Xanthisma junceum	rush-like bristleweed	None/None/4.3/None	Chaparral, coastal scrub/perennial herb/June–Jan/787–3281	Not expected to occur. The site is outside of the species' known elevation range. Species is known to occur within the vicinity.[2]

1 **Status Legend:**
Federal
FE: Federally listed as endangered
FT: Federally listed as threatened
FC: Federal Candidate for listing
State
SE: State listed as endangered
ST: State listed as threatened
SR: State Rare
CRPR
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 More Common Elsewhere
CRPR 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
CRPR 3: Plants About Which More Information is Needed - A Review List
CRPR 4: Plants of Limited Distribution - A Watch List
.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)
Multiple Habitat Conservation Program (MHCP) Escondido Subarea Plan
Covered: MHCP species occurring or potentially occurring in Escondido

2 **Potential to Occur Designations:**
Found within the vicinity: Escondido quadrangle
Found within the region: CNDDB 9-quad search

3 San Diego Natural History Museum. 2016. "San Diego Plant Atlas." Accessed October 2016. http://www.sdplantatlas.org/.

APPENDIX D

Special-Status Wildlife Potential to Occur

APPENDIX D
Special-Status Wildlife Species Potential To Occur

Scientific Name	Common Name	Status[1] Federal/State/MHCP Subarea Plan/Other	Primary Habitat Associations	Status on Site or Potential to Occur[2]
Amphibians				
Anaxyrus californicus	Arroyo toad	FE/SSC/None/None	Stream channels for breeding(typically 3rd order); adjacent stream terraces and uplands for foraging and wintering	Low potential to occur. Although the site is adjacent to a perennial/intermittent stream it lacks the stream terraces to be considered suitable habitat. There is a USFWS occurrence of this species within 3 miles of the project site.
Scaphiopus (= Spea) hammondi	Western spadefoot toad	None/ SSC/Covered/None	Most common in grasslands, coastal sage scrub near rain pools or vernal pools; riparian habitats	Low potential to occur. No suitable grasslands coastal sage scrub or vernal pools occur on site. Found within the vicinity.[2]
Reptiles				
Actinemys marmorata	Western pond turtle	None/SSC/Covered/None	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Low potential to occur on site. Limited suitable habitat present, the adjacent perennial/intermittent stream did not contain water during survey. Found within the vicinity.[2]
Aspidoscelis hyperythra	Orange-throated whiptail	None/WL/Covered/None	Chaparral Cismontane woodland, coastal scrub	Moderate potential to occur in on site. Found within the vicinity.[2]
Aspidoscelis tigris stejnegeri	Coastal whiptail	None/SSC/None/None	Coastal sage scrub, chaparral, grassland, juniper and oak woodland	Moderate potential to occur in on site Found within the vicinity.[2]
Crotalus ruber	Red-diamond rattlesnake	None/SSC/None/None	Variety of shrub habitats where there is heavy brush, large rocks, or boulders	Low potential to occur on site. Found within the vicinity.[2]
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC/Covered/None	Coastal sage scrub, annual grassland, chaparral, oak and riparian woodland, coniferous forest	Low potential to occur. Limited suitable habitat occurs on site. Found within the vicinity.[2]
Salvadora hexalepis virgultea	Coast patch-nosed snake	None/SSC/None/None	Chaparral, washes, sandy flats, rocky areas	Low potential to occur. No chaparral or sandy washes occur on site.
Thamnophis hammondii	Two-striped garter snake	None/SSC/None/None	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Moderate potential to occur. Suitable habitat on site.

Scientific Name	Common Name	Status[1] Federal/State/MHCP Subarea Plan/Other	Primary Habitat Associations	Status on Site or Potential to Occur[2]
Birds				
Accipiter cooperii (nesting)	Cooper's hawk	None/WL/Covered/None	Cismontane woodland, riparian forest, riparian woodland, upper montane coniferous forest	High potential to occur. Suitable coast live oak woodland is found on site.
Agelaius tricolor (nesting colony)	Tricolored blackbird	BCC/SSC/Covered/None	Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	Low potential to occur. No open water found on site. Found within the vicinity.[2]
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL/Covered/None	Chaparral, coastal scrub	Low potential to occur. No chaparral or coastal sage scrub found on site. Found within the vicinity.[2]
Ammodramus savannarum (nesting)	Grasshopper sparrow	None/SSC/Covered/None	Valley and foothill grassland	Low potential to occur. No grassland found on site.
Aquila chrysaetos (nesting and wintering)	Golden eagle	BCC/FP, WL/ Covered/None	Open country, especially hilly and mountainous regions; grassland, coastal sage scrub, chaparral, oak savannas, open coniferous forest	Low potential to forage, low potential to nest on site. The site is open with oak woodland but due to the limited space and surrounding residential development unlikely to support nesting or suitable foraging habitat. Species typically requires inaccessible nesting sites that are more isolated from development than the site can provide.
Artemisiospiza belli belli	Bell's sage sparrow	BCC/WL/Covered/None	Chaparral, coastal scrub	Low potential to occur. No chaparral or coastal sage scrub found on site. Found within the vicinity.[2]
Athene cunicularia (burrow sites)	Burrowing owl	BCC/SSC/Covered/None	Grassland, lowland scrub, agriculture, coastal dunes and other artificial open areas	Moderate potential to occur on site. Site contains open areas and adjacent areas include potentially suitable habitat, however, no suitable burrows were observed during surveys. Found within the vicinity.[2]
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	Low potential to forage; no potential to nest. Suitable foraging habitat occurs on site, however very limited in size. Found within the vicinity.[2]

Scientific Name	Common Name	Status[1] Federal/State/MHCP Subarea Plan/Other	Primary Habitat Associations	Status on Site or Potential to Occur[2]
Campylorhynchus brunneicapillus sandiegensis	Coastal cactus wren	BCC/SSC/Covered/None	Southern cactus scrub, maritime succulent scrub, cactus thickets in coastal sage scrub. In arid parts of westward-draining slopes of Southern California.	Not expected to occur. No suitable habitat on site for nesting. Found within the vicinity.[2]
Charadrius alexandrinus nivosus (nesting)	Western snowy plover (coastal population)	FT, BCC/SSC/None/None	Nests primarily on coastal beaches, in flat open areas, with sandy or saline substrates; less commonly in salt pans, dredged spoil disposal sites, dry salt ponds and levees	Not expected to occur. No suitable coastal beaches, site is 14 miles inland.
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	No expected to occur. The oak woodland on site is not suitable for this species. Found within the vicinity.[2]
Elanus leucurus (nesting)	White-tailed kite	None/FP/None/None	Open grasslands, savanna-like habitats, agriculture, wetlands, oak woodlands, riparian	Moderate potential to occur. Some suitable oak woodland present on site, but it is close to residential areas and human activity.
Empidonax traillii extimus	Southwestern willow flycatcher	FE/SE/Covered/None	Riparian woodlands along streams and rivers with mature, dense stands of willows or alders; may nest in thickets dominated by tamarisk	Low potential to occur in on site along drainage. No willow thickets found on site along adjacent intermittent stream. Found within the vicinity.[2] There is a USFWS occurrence of this species within 3 miles of the project site.
*Icteria virens (*nesting)	Yellow-breasted chat	None/SSC/Covered/None	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles and dense brush.	Low potential to occur. No willow thickets found on site. Found within the vicinity.[2]
Laterallus jamaicensis coturniculus	California black rail	BCC/ST, FP/None/None	Saline, brackish, and fresh emergent wetlands mostly in central coastal California	Not expected to occur. No suitable habitat on site.
Passerculus sandwichensis beldingi	Belding's savannah sparrow	None/SE/None/None	Scattered southern coastal salt marsh wetlands in southwestern California	Not expected to occur. No suitable habitat on site.
Plegadis chihi (nesting colony)	White-faced ibis	None/WL/Covered/None	Marsh and swamp, wetlands	Not expected to occur on site. No suitable marsh and swamp habitat present on site. Found within the vicinity.[2]

Scientific Name	Common Name	Status[1] Federal/State/MHCP Subarea Plan/Other	Primary Habitat Associations	Status on Site or Potential to Occur[2]
Polioptila californica californica	Coastal California gnatcatcher	FT/SSC/Covered/None	Coastal sage scrub, coastal sage scrub-chaparral mix, coastal sage scrub-grassland ecotone, riparian in late summer	Not expected to occur on site. No suitable coastal sage scrub habitat occurs on site. Found within the vicinity.[2] There is a USFWS occurrence of this species within 3 miles of the project site.
Rallus obsoletus levipes	Ridgeway's Rail (formerly Light-footed clapper rail)	FE/SE, FP/None/None	Coastal saline emergent wetlands along southern California from Santa Barbara Co. to San Diego Co.	Not expected to occur. No suitable habitat on site.
Sternula antillarum browni (nesting colony)	California least tern	FE/SE, FP/None/None	Breeding colonies located in marine and estuarine shores and in abandoned salt ponds and estuarine shores. Feeds in nearby waters.	Not expected to occur. No suitable habitat on site.
Vireo bellii pusillus	Least Bell's vireo	FE/SE/Covered/None	Nests in southern willow scrub with dense cover within 1-2 meters of the ground; habitat includes willows, cottonwoods, baccharis, wild blackberry or mesquite on desert areas	Low potential to occur on site. Oak woodland on site does not contain willows. Found within the vicinity.[2] There is a USFWS occurrence of this species within 3 miles of the project site.
Fishes				
Gila orcuttii	Arroyo chub	None/SSC/None/None	Warm, fluctuating streams with slow-moving or backwater sections of warm to cool streams at depths >40 centimeters (16 inches); substrates of sand or mud	Not expected to occur. The adjacent stream lacked water within study area. Species is native to the streams and rivers of the Los Angeles plain in southern California.
Mammals				
Antrozous pallidus	Pallid bat	None/SSC/None/ WBWG: H	Grasslands, shrublands, woodlands, forests; most common in open dry habitats with rocky outcrops for roosting. Found throughout low elevations of California, except for high Sierra Nevada and northwestern corner of the state south to Mendocino Co.	Not expected to roost on site due to lack of rocky outcrops. Moderate potential to forage on site. Found within the vicinity.[2]

Scientific Name	Common Name	Status[1] Federal/State/MHCP Subarea Plan/Other	Primary Habitat Associations	Status on Site or Potential to Occur[2]
Chaetodipus californicus femoralis	Dulzura pocket mouse	None/SSC/None/None	Coastal sage scrub, chaparral, riparian-scrub ecotone; more mesic areas	Not expected to occur. Upland areas are highly disturbed from past agricultural operations. Found within the vicinity.[2]
Chaetodipus fallax fallax	Northwestern San Diego pocket mouse	None/SSC/Covered/None	Coastal sage scrub, grassland, sage scrub-grassland ecotones, sparse chaparral; rocky substrates, loams and sandy loams	Low potential to occur on site. No coastal sage scrub habitat occurs on site. Upland areas are highly disturbed from past agricultural operations.
Choeronycteris mexicana	Mexican long-tongued bat	None/SSC/None/ WBWG: H	Desert and montane riparian, desert succulent scrub, desert scrub, and pinyon-juniper woodland. Roosts in caves, mines, and buildings. Summer resident in San Diego Co. In southwestern US, typically observed in oak-conifer woodlands and semi desert grasslands.	Not expected to roost on site due to lack of suitable roosting habitat. Low potential to forage on site because species is rare in western San Diego County.
Corynorhinus townsendii	Townsend's big-eared bat	None/ CT, SSC/Covered/ WBWG: H	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, also man-made structures and tunnels.	Low potential to roost and forage on site. Found within the vicinity.[2]
Dipodomys stephensi	Stephens' kangaroo rat	FE/ST/Covered/None	Coastal scrub, valley and foothill grassland	No potential to occur. No grassland available on site. Nearest populations are in Fallbrook and on Camp Pendleton, which are separated from the Project site by highly unsuitable land uses (intensive agriculture and urban development) and unsuitable vegetation (chaparral and dense coastal scrub).
Euderma maculatum	Spotted bat	None/SSC/None/ WBWG: H	Arid deserts, grasslands and mixed conifer forests at elevations from below sea level to 10,000 feet. Roosts sites are cracks, crevices and caves, usually high in fractured rock cliffs.	No potential to roost on site due to lack of suitable roosting habitat. Low potential to forage on site.

Scientific Name	Common Name	Status[1] Federal/State/MHCP Subarea Plan/Other	Primary Habitat Associations	Status on Site or Potential to Occur[2]
Eumops perotis californicus	Western mastiff bat	None/SSC/Covered/ WBWG: H	Primarily a cliff-dwelling species. Roosts under exfoliating rock slabs, or in small colonies in cracks and small holes in boulders and buildings.	Not expected to roost on site due to lack of suitable roosting habitat. Moderate potential to forage on site. Found within the vicinity.[2]
Lasiurus blossevillii	Western red bat	None/SSC/None/ WBWG: H	Roosts in forests and woodlands and feeds over grasslands, shrublands, open woodlands and forests, and croplands. Roosts sites are often in edge habitats adjacent to streams, fields or urban areas.	Moderate potential to roost and forage on site. Suitable woodlands adjacent to channel occur on site.
Lasiurus cinereus	Hoary bat	None/None/None/ WBWG: M	Broadleaved upland forest. Cismontane woodland. Lower montane coniferous forest. North coast coniferous forest.	No potential to roost due to lack of suitable roosting habitat. Low potential to forage on site. Found within the vicinity.[2]
Lasionycteris noctivagans	Silver-haired bat	None/None/None/ WBWG: M	Old growth forest, maternity roosts in trees (primarily woodpecker hollows), large diameter snags 50 ft above ground; hibernates in hollow trees, under sloughing bark, in rock crevices, and occasionally in buildings, mines and caves; forages in or near coniferous or mixed deciduous forest, often following stream or river drainages	Not expected to roost on site due to lack of suitable roosting habitat. Low potential to forage on site due to lack of suitable foraging habitat.
Lasiurus xanthinus	Western yellow bat	None/SSC/None/ WBWG: H	Valley foothill riparian, desert riparian, desert wash, and palm oasis habitats below 2,000 feet. Display a particular association with palms and desert riparian oases. Prefer tree-roosting under palm leaves, but also have been documented using cottonwood.	Not expected to roost on site due to lack of suitable roosting habitat. Low potential to forage on site. Species very uncommon in western San Diego County. Found within the vicinity.[2]

Scientific Name	Common Name	Status[1] Federal/State/MHCP Subarea Plan/Other	Primary Habitat Associations	Status on Site or Potential to Occur[2]
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None/SSC/Covered/None	Arid habitats with open ground; grasslands, coastal sage scrub, agriculture, disturbed areas, rangelands	Moderate potential to occur. Site contains open areas and adjacent areas are composed of open habitat but the site lacks grassland or coastal sage scrub habitat. Found within the vicinity.[2]
Myotis ciliolabrum	Western small-footed myotis	None/None/None/ WBWG: M	Caves, old mines, abandoned buildings	Not expected to roost on site due to lack of suitable roosting habitat. Moderate potential to forage on site.
Myotis evotis	Long-eared myotis	None/None/None/ WBWG: M	Roosts in buildings, crevices, under bark, and snags. Caves used as night roosts. Feeds along habitat edges, in open habitats, and over water. Occurs primarily along entire coast and in Sierra Nevada, Cascades, Great Basin, and 0-2700 m	Not expected to roost on site due to lack of suitable roosting habitat. Moderate potential to forage on site.
Myotis yumanensis	Yuma myotis	None/None/None/ WBWG: LM	Lower montane coniferous forest. Riparian forest. Riparian woodland. Upper montane coniferous forest.	Low potential to roost on site due to presence of riparian woodland. Moderate potential to forage on site. Found within the vicinity.[2]
Neotoma lepida intermedia	San Diego desert woodrat	None/SSC/None/None	Coastal sage scrub, chaparral, pinyon-juniper woodland with rock outcrops, cactus thickets, dense undergrowth	Low potential to occur due to the disturbed suitable habitat on site. Found within the vicinity.[2]
Nyctinomops femorosaccus	Pocketed free-tailed bat	None/SSC/None/ WBWG: M	Rocky desert areas with high cliffs or rock outcrops; pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree, palm oasis	Not expected to roost on site due to lack of suitable roosting habitat. Low potential to forage on site; more common in desert areas. Found within the vicinity.[2].
Nyctinomops macrotis	Big free-tailed bat	None/SSC/None/ WBWG: MH	Rugged, rocky canyons in arid landscapes. Primarily roosts in crevices in rocks in cliffs, but also documented using buildings, caves and tree cavities.	Not expected to roost on site due to lack of suitable roosting habitat. Moderate potential to forage on site. Found in vicinity.[2]

Scientific Name	Common Name	Status[1] Federal/State/MHCP Subarea Plan/Other	Primary Habitat Associations	Status on Site or Potential to Occur[2]
Perognathus longimembris pacificus	Pacific pocket mouse	FE/SSC/None/None	Coastal dunes, river alluvium, coastal sage scrub with firm sandy soils; along immediate coast in San Diego, Orange, and Los Angeles Cos.	No potential to occur. Site is well east and south of current known range for this species, including Camp Pendleton and Dana Point in Orange County.
Taxidea taxus	American badger	None/SSC/None/None	Dry, open treeless areas, grasslands, coastal sage scrub, especially with friable soils throughout California	Low potential to occur. Limited suitable habitat occurs on site. Found within the vicinity.[2]
Invertebrates				
Branchinecta sandiegonensis	San Diego fairy shrimp	FE/None/None/None	Small, shallow vernal pools, occasionally ditches and road ruts	Not expected to occur. No vernal pools on site.
Euphydryas editha quino	Quino checkerspot	FE/None/Covered/None	Sunny openings within chaparral and coastal sage shrublands in parts of Riverside and San Diego counties. Need high densities of food plants *Plantago erecta, P. insularis, Orthocarpus purpurascens*	Not expected to occur. Site is located outside of the USFWS-identified survey area; and no host plants observed during surveys. There is a USFWS occurrence of this species within 3 miles of the project site.
Streptocephalus woottoni	Riverside fairy shrimp	FE/None/None/None	Deep, long-lived vernal pools, vernal pool-like seasonal ponds, stock ponds; warm water pools that have low to moderate dissolved solids; in patches of grassland or agriculture interspersed in coastal sage scrub vegetation in Southern California.	Not expected to occur. No vernal pools on site.

The federal and state status of species is based on the Special Animals List (July 2016), California Department of Fish and Wildlife.

[1] **Status Designations**

Federal:

FC	Candidate for federal listing as threatened or endangered
(FD)	Federally-delisted; monitored for five years
FE	Federally-listed Endangered
FPT	Federally-proposed threatened

State:

SSC	California Species of Special Concern
CT	California Candidate Threatened
FP	California Department of Fish and Game Fully Protected Species

WL California Department of Fish and Game Watch List Species
SE State-listed as Endangered
ST State-listed as Threatened
(SD) State-delisted

Multiple Habitat Conservation Program (MHCP) Draft Escondido Subarea Plan:

Covered MHCP species occurring or potentially occurring in Escondido; plan is draft thus no take authorized for proposed covered species (Table 3-2)

Other:

WBWG Western Bat Working Group
L: Species is stable globally but there may be localized conservation concerns.
M: Species warrants closer evaluation, research, and conservation actions
H: Species are imperiled or are at high risk of imperilment

AFS American Fisheries Society
EN: Endangered
TH: Threatened
VU: Vulnerable

[2] **Potential to Occur Designations:**
Found within the vicinity: Escondido quadrangle
Found within the region: CNDDB 9-quad search

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APPENDIX E

Routine Wetland Determination Data Forms

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Bear Valley Parkway Specific Alignment City/County: Escondido/San Diego Sampling Date: 7/14/2016

Applicant/Owner: Spieth-Wohlford Inc. State: CA Sampling Point: 1A

Investigator(s): Callie Ford (Dudek) Section, Township, Range: Section 26, Township 12S, Range 2W

Landform (hillslope, terrace, etc.): Channel Local relief (concave, convex, none): None Slope (%):

Subregion (LRR): C - Mediterranean California Lat: 33°05'42.01"N Long: 117°03'31.49" W Datum:

Soil Map Unit Name: Ramona Sandy Loam NWI classification: Freshwater Forested Shrub Wetland

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (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 ○	No ◉	
Hydric Soil Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Wetland Hydrology Present?	Yes ◉	No ○	

Remarks: Long-term drought in region.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1. *Washingtonia robusta*	1	No	FACW
2.			
3.			
4.			
5.			
Total Cover:	1 %		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum 99 % % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	1	x 2 =	2
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	1 (A)		2 (B)

Prevalence Index = B/A = 2.00

Hydrophytic Vegetation Indicators:

- ☐ 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.

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: Leaf litter and bare ground in channel bottom.

SOIL

Sampling Point: 1A

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[3]	Remarks
0-2	10 YR 3/4	100					Sand	
2-6	10 YR 2/2	99	5 YR 4/6	1	C	M	Sandy loam	
6-9	10 YR 3/4	100					Sand	
9-18	10 YR 2/2	100					Sandy loam	

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

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[4]:

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

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Rock

Depth (inches): 18 in +

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☒ 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 ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks: Surface water at culvert only.

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Bear Valley Parkway Specific Alignment | City/County: Escondido/San Diego | Sampling Date: 7/14/2016

Applicant/Owner: Spieth-Wohlford Inc. | State: CA | Sampling Point: 1B

Investigator(s): Callie Ford (Dudek) | Section, Township, Range: Section 26, Township 12S, Range 2W

Landform (hillslope, terrace, etc.): Channel | Local relief (concave, convex, none): None | Slope (%): 0

Subregion (LRR): C - Mediterranean California | Lat: 33°05'42.03"N | Long: 117°03'31.20" W | Datum:

Soil Map Unit Name: Ramona Sandy Loam | NWI classification: Freshwater Forested Shrub Wetland

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (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 ○	No ◉	
Hydric Soil Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks: Long-term drought in region.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus agrifolia*	60	Yes	Not Listed
2. *Washingtonia robusta*	25	Yes	FACW
3. *Phoenix dactylifera*	15	No	Not Listed
4. *Fraxinus velutina*	2	No	FAC
Total Cover:	102%		
Sapling/Shrub Stratum			
1. *Quercus agrifolia*	80	Yes	Not Listed
2.			
3.			
4.			
5.			
Total Cover:	80 %		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum 90 % | % Cover of Biotic Crust %

Dominance Test worksheet:

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

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	25	x 2 =	50
FAC species	2	x 3 =	6
FACU species		x 4 =	0
UPL species	155	x 5 =	775
Column Totals:	182 (A)		831 (B)

Prevalence Index = B/A = 4.57

Hydrophytic Vegetation Indicators:

- ◉ 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.

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: Leaf litter included in bare ground percentage in herb stratum.

SOIL

Sampling Point: 1B

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[3]	Remarks
0-8	10 YR 3/3	100					Loamy sand	

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

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[4]:

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

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Riprap

Depth (inches): 8 in +

Hydric Soil Present? Yes ○ No ◉

Remarks: The bank is stabilized with riprap.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ 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 ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Bear Valley Parkway Specific Alignment City/County: Escondido/San Diego Sampling Date: 7/14/2016

Applicant/Owner: Spieth-Wohlford Inc. State: CA Sampling Point: 2A

Investigator(s): Callie Ford (Dudek) Section, Township, Range: Section 26, Township 12S, Range 2W

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

Subregion (LRR): C - Mediterranean California Lat: 33°05'40.80"N Long: 117°03'31.27" W Datum:

Soil Map Unit Name: Ramona Sandy Loam NWI classification: Freshwater Forested Shrub Wetland

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (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 ○	No ◉	
Hydric Soil Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Wetland Hydrology Present?	Yes ◉	No ○	

Remarks: Long-term drought in region.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
Total Cover:	%		
Sapling/Shrub Stratum			
1.			
2.			
3.			
4.			
5.			
Total Cover:	%		
Herb Stratum			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	%		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum 100% % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species		x 2 =	0
FAC species		x 3 =	0
FACU species		x 4 =	0
UPL species		x 5 =	0
Column Totals:	(A)		0 (B)

Prevalence Index = B/A =

Hydrophytic Vegetation Indicators:

- ☐ 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.

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: Leaf litter, riprap, and bare ground in channel bottom.

SOIL

Sampling Point: 2A

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[3]	Remarks
0-2	10 YR 3/4	100					Loamy sand	

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

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:[4]

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

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Riprap

Depth (inches): 2 in +

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☒ 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 ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ◉ No ○

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

Remarks:

WETLAND DETERMINATION DATA FORM - Arid West Region

Project/Site: Bear Valley Parkway Specific Alignment City/County: Escondido/San Diego Sampling Date: 7/14/2016

Applicant/Owner: Spieth-Wohlford Inc. State: CA Sampling Point: 2B

Investigator(s): Callie Ford (Dudek) Section, Township, Range: Section 26, Township 12S, Range 2W

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

Subregion (LRR): C - Mediterranean California Lat: 33°05'40.81"N Long: 117°03'31.17" W Datum:

Soil Map Unit Name: Ramona Sandy Loam NWI classification: Freshwater Forested Shrub Wetland

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

Are Vegetation ☐ Soil ☐ or Hydrology ☐ significantly disturbed? Are "Normal Circumstances" present? Yes ◉ No ○

Are Vegetation ☐ Soil ☐ or Hydrology ☐ naturally problematic? (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 ○	No ◉	
Hydric Soil Present?	Yes ○	No ◉	**Is the Sampled Area within a Wetland?** Yes ○ No ◉
Wetland Hydrology Present?	Yes ○	No ◉	

Remarks: Long-term drought in region.

VEGETATION

Tree Stratum (Use scientific names.)	Absolute % Cover	Dominant Species?	Indicator Status
1. *Quercus agrifolia*	80	Yes	Not Listed
2. *Washingtonia robusta*	5	No	FACW
3.			
4.			
Total Cover:	85 %		
Sapling/Shrub Stratum			
1. *Toxicodendron diversilobum*	25	Yes	FACU
2.			
3.			
4.			
5.			
Total Cover:	25 %		
Herb Stratum			
1. *Pennisetum setaceum*	1	No	Not Listed
2.			
3.			
4.			
5.			
6.			
7.			
8.			
Total Cover:	1 %		
Woody Vine Stratum			
1.			
2.			
Total Cover:	%		

% Bare Ground in Herb Stratum 60 % % Cover of Biotic Crust %

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0 % (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	0
FACW species	5	x 2 =	10
FAC species		x 3 =	0
FACU species	25	x 4 =	100
UPL species	81	x 5 =	405
Column Totals:	111 (A)		515 (B)

Prevalence Index = B/A = 4.64

Hydrophytic Vegetation Indicators:

- ◉ 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.

Hydrophytic Vegetation Present? Yes ○ No ◉

Remarks: Leaf litter included in bare ground in herb stratum.

SOIL

Sampling Point: 2B

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[3]	Remarks
0-6	10 YR 3/3	100					Sandy loam	

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

[3]Soil Textures: Clay, Silty Clay, Sandy Clay, Loam, Sandy Clay Loam, Sandy Loam, Clay Loam, Silty Clay Loam, Silt Loam, Silt, Loamy Sand, Sand.

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)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils:[4]

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

[4]Indicators of hydrophytic vegetation and wetland hydrology must be present.

Restrictive Layer (if present):

Type: Hard soil

Depth (inches): 6 in +

Hydric Soil Present? Yes ○ No ◉

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (any one indicator is sufficient)

- ☐ 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 Plowed Soils (C6)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ 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 ◉ Depth (inches):

Water Table Present? Yes ○ No ◉ Depth (inches):

Saturation Present? (includes capillary fringe) Yes ○ No ◉ Depth (inches):

Wetland Hydrology Present? Yes ○ No ◉

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

Remarks: