Appendix BIO

Goetz Road Potable Water Storage Tank and Transmission Pipeline Biological Resources Assessment Update Report

ESA

GOETZ ROAD POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT, RIVERSIDE COUNTY, CA

Biological Resources Assessment Update Report

Prepared for
Eastern Municipal Water District
2270 Trumble Road
Perris, CA 92572

August 2019

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GOETZ ROAD POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE PROJECT

Biological Resources Assessment Update Report

Introduction

This report documents the findings of a biological resources assessment update for special-status plant and wildlife species and vegetation communities for the Eastern Municipal Water District's (EMWD) Goetz Road Potable Water Storage Tank and Transmission Pipeline Project (Project). EMWD prepared an Initial Study/Mitigated Negative Declaration (IS/MND) for the Project which was released for public review in October 2015. Subsequent to that release, EMWD decided that an Environmental Impact Report (EIR) would be the most appropriate document to satisfy requirements of the California Environmental Quality Act (CEQA), and released a Notice of Preparation (NOP) in November 2015. The IS/MND was not adopted by the EMWD Board of Directors.

This assessment is an update of a 2015 Habitat Assessment prepared by Travis J. McGill in support of the IS/MND (**Appendix A**). The purpose of this assessment update is to provide an update to the analysis in support of the EIR.

A description of the Project, methods used during the assessment, survey results, and recommendations for avoiding and minimizing impacts to biological resources during construction and operation of the Project are described below.

Project Description

EMWD proposes to construct a new water tank and associated pipeline (**Figure 1**). As identified in EMWD's Water Facilities Master Plan, the 1627 pressure zone has a number of deficiencies, including low pressure, deficient storage, and insufficient pumping capacities. The Project would involve construction and operation of an 8-million-gallon (MG) potable water storage tank at the northwest corner of Sotelo Road and Goetz Road in the City of Perris. A chlorination disinfection facility would be constructed adjacent to the storage tank. The Project would also include construction and operation of a 5,490-foot transmission pipeline along Thorton Avenue and proposed rights-of-way in the City of Perris and City of Menifee. The pipeline would connect the storage tank to the existing distribution system within Murrieta Road in the City of Menifee. An alternative pipeline alignment is being considered by EMWD and is included in this assessment.

The overall area of permanent disturbance for the tank and disinfection facility would be 2.85 acres. All facilities would be constructed on property owned by EMWD or within planned or existing rights-of-way and include proposed water storage tank facility, proposed transmission pipeline, alternative pipeline alignment within existing Goetz Road right-of-way and alternative pipeline alignment within future Goetz Road right-of-way (**Figure 2**).

Methods

Biological Resources Assessment

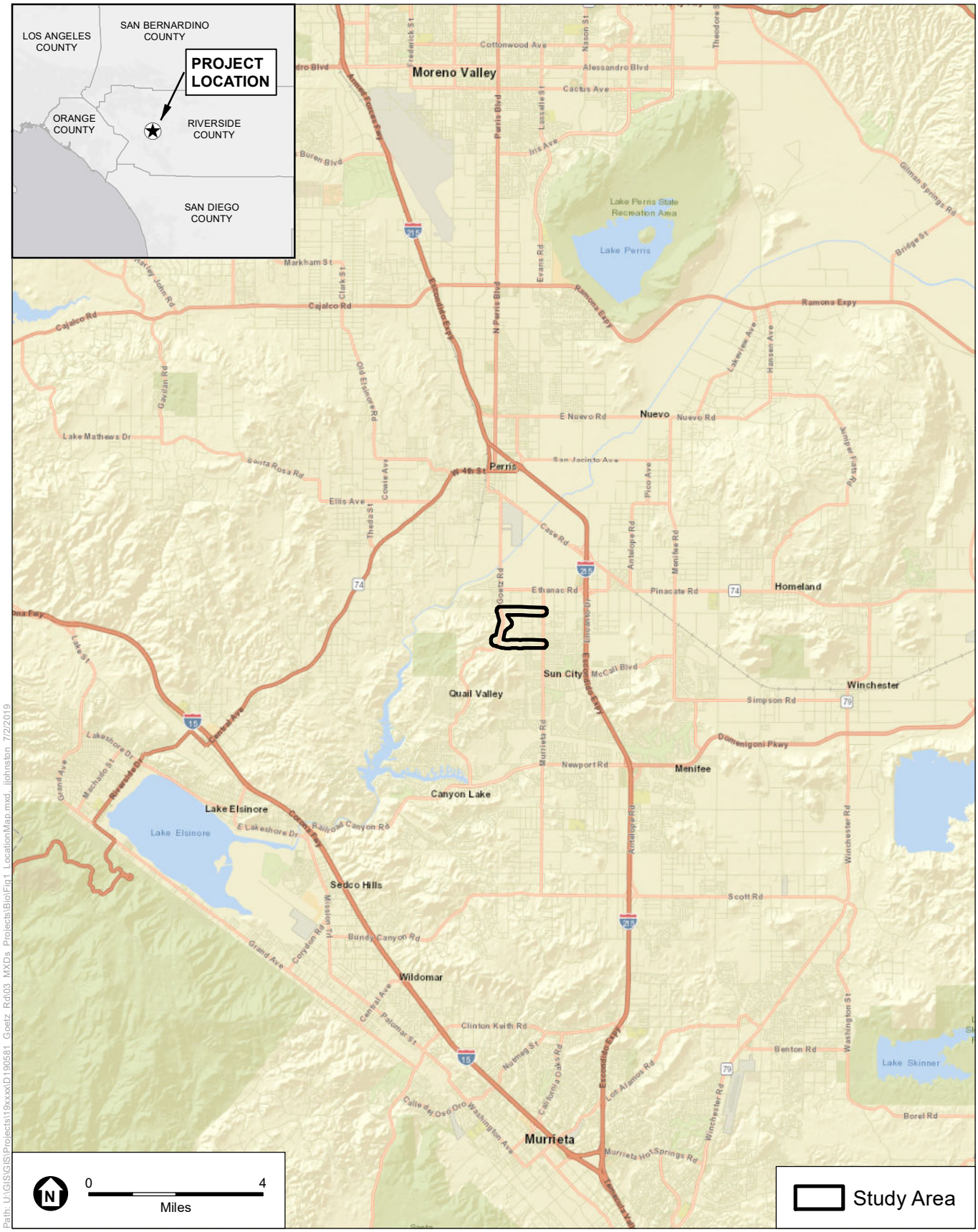
A biological resources assessment was conducted by Environmental Science Associates (ESA) biologist Lily Sam on July 12, 2019 between the hours of 7:00 a.m. and 1:00 p.m. Temperatures during the assessment ranged between 70° and 90° Fahrenheit with winds ranging between 0 to 3 miles per hour (mph), with clear skies. The "study area" included the Project site (2.85-acre potable water storage tank site, proposed pipeline alignment, and alternative pipeline alignment) and a 500-foot buffer in all directions. The assessment consisted of characterizing and mapping the vegetation communities and land uses that would be impacted by the Project (**Figure 3**) and noting the dominant species that comprise the communities.

Vegetation communities were characterized based on *A Manual of California Vegetation, Second Ed.* (Sawyer et al 2009), or by species dominance. Plant taxonomy followed Baldwin, et al. (2012). Representative photographs taken during the assessment are provided in **Appendix B**.

The majority of the study area was assessed; however, a substantial amount of the proposed transmission pipeline, portions of the alternative pipeline alignment, and segments of the 500-foot buffer area along both alignments are located within private property and therefore could not be assessed. Such areas with limited access were assessed from the nearest vantage point using binoculars and/or characterized based on the previous data collected for the 2015 Habitat Assessment (Appendix A; McGill 2015). The entirety of the accessible areas of the study area were walked to verify the current condition of the vegetation communities, including California Department of Fish and Wildlife (CDFW) sensitive natural communities[1], and to assess habitat suitability for supporting special-status species[2], including burrowing owl (*Athene cunicularia*). Any signs or direct observations of wildlife were noted.

[1] CDFW sensitive natural communities include those communities given a State rank of S1-S3 (CDFW 2019b).

[2] Special-status species include those listed as endangered, threatened, or candidate by the CESA or FESA. This also includes species with a California Rare Plant Rank (CRPR) of 1A, 1B, 2A, or 2B; California Fully Protected Species; Watch List Species and CDFW Species of Special Concern.

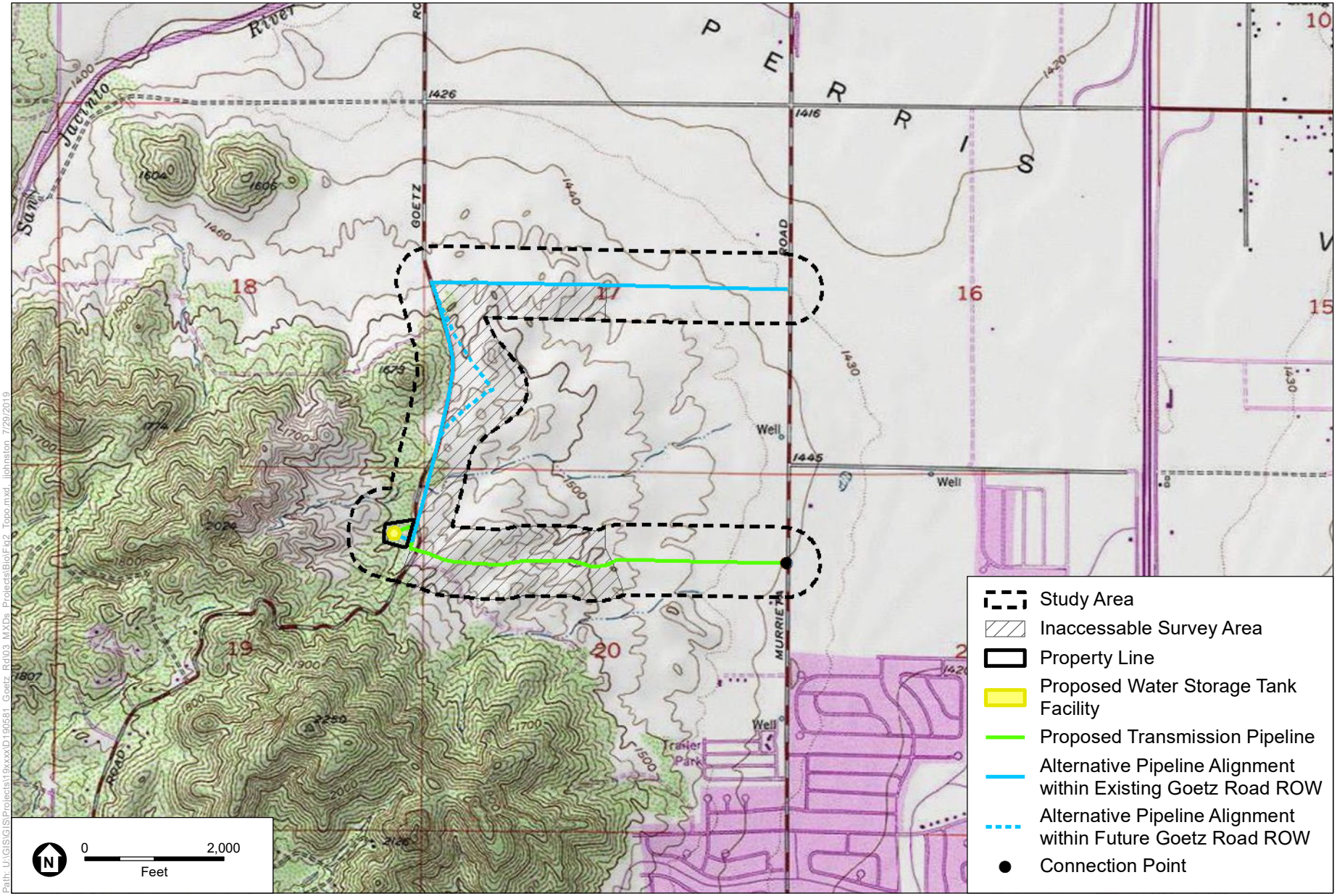


SOURCE: ESRI

Goetz Road Potable Water Storage Tank and Transmission Pipeline Project

Figure 1
Location Map

ESA

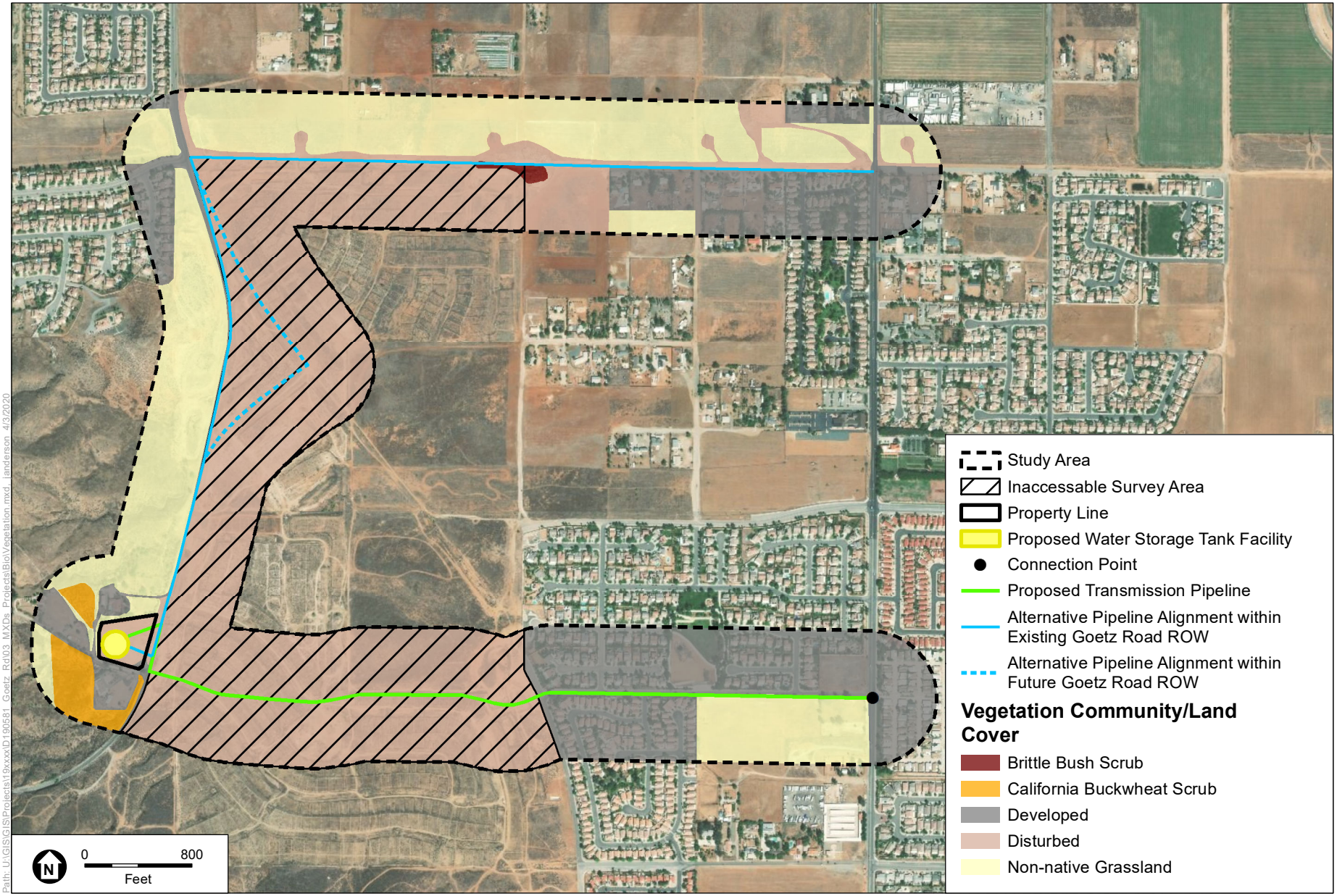


SOURCE: USGS 7.5' Topo Quad Romoland 1976, 1980; ESA, 2019.

Goetz Road Potable Water Storage Tank and Transmission Pipeline Project

Figure 2
USGS Topographic Map

ESA



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SOURCE: DigitalGlobe 2018; ESA, 2019.

Goetz Road Potable Water Storage Tank and Transmission Pipeline Project

Figure 3
Vegetation Community / Land Cover Map

ESA

Literature and Database Review

Prior to conducting the site assessment, database searches of the CDFW California Natural Diversity Data Base (CNDDB) (CDFW 2019a), United States Fish and Wildlife's (USFWS) Critical Habitat Mapper (USFWS 2019a) and the California Native Plant Society (CNPS) Rare Plant Inventory (CNPS 2019) were conducted to query special-status biological resources that have been recorded in the region. The results of the database searches were used to develop a list of species that could potentially occur on the study area. The query included the Romoland United States Geological Survey (USGS) Quadrangle 7.5-minute map for which the study area is located, as well as the surrounding eight USGS quadrangles: Steele Peak, Perris, Lakeview, Lake Elsinore, Winchester, Wildomar, Murrieta and Bachelor Mountain. In addition, the Western Riverside County Regional Conservation Authority's (RCA) website and Multiple Species Habitat Conservation Plan (MSHCP) Information Map was reviewed (RCA 2019) as well as the 2015 Habitat Assessment (McGill 2015; Appendix A).

Regulatory Framework

The following section provides a general description of the applicable regulatory requirements for the Project, including federal, State, and local policies and guidelines. Some regulations have been added or changed since the 2015 Habitat Assessment was completed; a comprehensive list is provided here for completeness.

Federal

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

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

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

Section 9 lists those actions that are prohibited under the FESA. Although take of a listed species is prohibited, it is allowed when it is incidental to an otherwise legal activity. Section 9 prohibits

take of listed species of fish, wildlife, and plants without special exemption. The definition of "harm" includes significant habitat modification or degradation that results in death or injury to listed species by significantly impairing behavioral patterns related to breeding, feeding, or shelter. "Harass" is defined as actions that create the likelihood of injury to listed species by disrupting normal behavioral patterns related to breeding, feeding, and shelter significantly.

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

Migratory Bird Treaty Act (16 USC 703 through 711)

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

Federal Clean Water Act (33 USC 1251 through 1376)

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

2015 Clean Water Rule

In 2015, the USACE and the Environmental Protection Agency (USEPA) issued the Clean Water Rule detailing the process for determining Clean Water Act (CWA) jurisdiction over waters of the United States (waters of the U.S.) (USACE 2015). The rule is currently in effect in California and 21 other states. The 2015 Clean Water Rule includes a detailed process for determining which areas may be subject to jurisdiction under the Clean Water Act, and broadly classifies features into three categories: those that are jurisdictional by rule (Category A below), those that

excluded by rule (Category C below) and those features that require a "significant nexus test" (Category B below).

The significant nexus test includes consideration of hydrologic and ecologic factors. For circumstances such as those described in Category B below, the significant nexus test would take into account physical indicators of flow (evidence of an ordinary high water mark [OHWM]), if a hydrologic connection to a Traditionally Navigable Water (TNW) exists, and if the aquatic functions of the water body have a significant effect (more than speculative or insubstantial) on the chemical, physical, and biological integrity of a TNW. The USACE and USEPA will apply the significant nexus standard to assess the flow characteristics and functions of a potential waters of the U.S. to determine if it significantly affects the chemical, physical, and biological integrity of the downstream TNW.

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

2015 Clean Water Rule Key Points Summary

a. The USACE and USEPA will assert jurisdiction over the following waters (jurisdictional by rule):
    - TNWs.
    - Interstate waters and wetlands.
    - Territorial seas.
    - Impoundments of waters (reservoirs, etc.).
    - Tributaries with the following attributes:
        - Contributes flow to a TNW.
        - Contain bed, banks, and ordinary high water mark.
        - Can be natural, man-altered, or man-made.
        - Can have constructed breaks (culverts, pipes, etc.) or natural breaks.
    - Waters "adjacent" to TNW and their tributaries, including:
        - Waters that are bordering, contiguous, or neighboring a TNW, interstate water, territorial sea, impoundment or tributary. Includes waters separated from other ''waters of the United States'' by constructed dikes or barriers, natural river berms, beach dunes or similar.
        - Waters within 100 feet of the OHWM of a TNW, interstate water, territorial sea, impoundment or tributary.

- Waters within the 100-year floodplain and within 1,500 feet of a TNW, interstate water, territorial sea, impoundment or tributary.
- Waters within 1,500 feet of the high tide line or OHWM of a TNW or territorial sea.

b. The USACE and USEPA will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW unless excluded by rule (significant nexus test):

- Vernal pools that have a significant nexus to a TNW or territorial sea.
- Waters within the 100-year floodplain of a TNW, interstate water or territorial sea.
- Waters within 4,000 feet of the high tide line or OHWM of a TNW, interstate water, territorial sea, impoundment or tributary.

c. (C) The USACE and USEPA will not assert jurisdiction over the following features (excluded by rule):

- Waste treatment facilities including basins and percolation ponds.
- Prior converted cropland.
- The following types of ditches:
  - Ephemeral ditches that are not a relocated tributary or excavated in a tributary.
  - Intermittent ditches that are not a relocated tributary, excavated in a tributary, or drain wetlands.
  - Ditches that do not flow, either directly or through another water, into a TNW, interstate waters, territorial sea.
- Artificially irrigated areas that would revert to upland.
- Artificial, constructed lakes and ponds created in dry land such as stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, cooling ponds
- Swimming pools or reflecting pools in dry land.
- Small ornamental waters created in dry land.
- Water-filled depressions created in dry land from mining or construction activities including pits for fill, sand, or gravel.
- Erosional features including gullies and rills that are not tributaries, non-wetland swales and constructed grass waterways.
- Puddles.
- Groundwater.
- Stormwater control features created in dry land.
- Wastewater recycling structures created in dry land including detention and retention basins, groundwater recharge basins, percolation ponds and water distributary structures.

Wetlands and Other Waters of the United States

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

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

State

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

The CESA establishes the policy of the State to conserve, protect, restore, and enhance threatened or endangered species and their habitats. The CESA mandates that State agencies should not approve projects that would jeopardize the continued existence of threatened or endangered species if reasonable and prudent alternatives are available that would avoid jeopardy. There are no State agency consultation procedures under the CESA. For projects that would affect a listed species under both the CESA and the FESA, compliance with the FESA would satisfy the CESA if CDFW determines that the federal incidental take authorization is "consistent" with the CESA under California Fish and Game Code Section 2080.1. For projects that would result in take of a species listed under the CESA only, the project operator would have to apply for a take permit under Section 2081(b).

California State Fish and Game Code § 1602

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

are valuable to fish and wildlife are subject to CDFW jurisdiction. CDFW also has jurisdiction over dry washes that carry water during storm events.

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

California Fully Protected Species

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

California State Fish and Game Code §§ 2080 and 2081

Section 2080 of the California Fish and Game Code states that "No person shall import into this state [California], export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the Commission [State Fish and Game Commission] determines to be an endangered species or threatened species, or attempt any of those acts, except as otherwise provided in this chapter, or the Native Plant Protection Act, or the California Desert Native Plants Act." Pursuant to Section 2081 of the code, CDFW may authorize individuals or public agencies to import, export, take, or possess State-listed endangered, threatened, or candidate species. These otherwise prohibited acts may be authorized through permits or Memoranda of Understanding if the take is incidental to an otherwise lawful activity, impacts of the authorized take are minimized and fully mitigated, the permit is consistent with any regulations adopted pursuant to any recovery plan for the species, and the project operator ensures adequate funding to implement the measures required by CDFW, which makes this determination based on available scientific information and considers the ability of the species to survive and reproduce.

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

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

Section 3800 of the California Fish and Game Code affords protection to all nongame birds, which are all birds occurring naturally in California that are not resident game birds, migratory game birds, or fully protected birds. Section 3513 of the California Fish and Game Code upholds

the MBTA by prohibiting any take or possession of birds that are designated by the MBTA as migratory nongame birds except as allowed by federal rules and regulations promulgated pursuant to the MBTA.

California Environmental Quality Act Guidelines, § 15380

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

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

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

California Wetland Definition

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

Under normal circumstances, the federal definition of wetlands requires all three wetland identification parameters to be met, whereas the Cowardin definition requires the presence of at least one of these parameters. For this reason, identification of wetlands by State agencies

consists of the union of all areas that are periodically inundated or saturated or in which at least seasonal dominance by hydrophytes may be documented or in which hydric soils are present.

Section 401 Clean Water Act

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

Porter-Cologne Water Quality Control Act

The RWQCB also has jurisdiction over waters deemed 'isolated' or not subject to Section 404 jurisdiction under the SWANCC decision. Dredging, filling, or excavation of isolated waters constitutes a discharge of waste to waters of the State and prospective dischargers are required obtain authorization through an Order of Waste Discharge or waiver thereof from the RWQCB and comply with other requirements of Porter-Cologne Act.

Local

Western Riverside County Multiple Species Habitat Conservation Plan

The MSHCP is a comprehensive, multi-jurisdictional habitat conservation plan (HCP) focused on the conservation of species and their associated habitats in western Riverside County. The MSHCP currently provides conservation for 146 species which are referred to as covered species. The primary goal of the MSHCP is to maintain biological and ecological diversity within a rapidly urbanizing region. The MSHCP involves the assembly and management of a 500,000-acre Conservation Area for the conservation of natural habitats and their constituent wildlife populations. The MSHCP was developed to serve as a HCP pursuant to the Natural Communities Conservation Planning (NCCP) Act and Section 10(a)(1)(B) of the FESA. The MSHCP encompasses 1.26 million acres and includes all unincorporated Riverside County land west of the crest of the San Jacinto Mountains to the Orange County line as well as jurisdictional areas of the Cities of Temecula, Murrieta, Lake Elsinore, Canyon Lake, Norco, Corona, Riverside, Moreno Valley, Banning, Beaumont, Calimesa, Perris, Hemet, and San Jacinto. The overarching purpose of the plan is to balance development and economic interests with species and lands conservation goals. The MSHCP permits development of lands and take of species "in exchange for the assembly and management of a coordinated MSHCP Conservation Area" (Western Riverside County Regional Conservation Authority, 2003a).

The City of Menifee and the City of Perris have adopted ordinances to implement the MSHCP, which addresses habitat protection issues throughout the County and Cities and establishes "criteria areas," which require high levels of habitat protection. All development projects within criteria areas are first required to undergo an extensive habitat assessment and if necessary, undergo an acquisition process from the RCA. However, EMWD is not a Participating Entity in the MSCHP and is not required to demonstrate project consistency with the goals and provisions

of the MSHCP as they pertain to biological resources on EWMD-owned lands. EWMD is required to demonstrate consistency with the MSHCP on non-EWMD-owned lands.

Protective Tree Ordinances

The Cities of Menifee and Perris have ordinances which protect both public and private trees within their respective city limits. Each ordinance prohibits the removal of trees or shrubs within public parks, public grounds, public streets, and other public and private areas without prior permission. A tree removal permit is required prior to the trimming or removal of a public or private tree.

Existing Conditions

Land Cover and Vegetation Communities

As shown in Figure 3, the study area is primarily comprised of non-native grassland, developed areas and disturbed areas that are devoid of vegetation, but also includes small amounts of native vegetation such as California buckwheat scrub and brittlebush scrub. The 2015 Habitat Assessment conducted for the Project indicates that the portion of the Proposed Project that occurs within the Cimarron Ridge Development Project consists of heavily disturbed non-native grassland characterized as "ruderal" (Albert A. Webb Associates 2015). In addition, a review of aerial imagery from October 2005 to December 2018 depicts various levels of disturbance areas that appear to be devoid of vegetation and/or ruderal vegetation within the majority of the inaccessible areas (Google Earth Pro 2019). Activities as early as 2005 associated with the Cimarron Ridge Development Project included excavation and grading, and construction of roads and detention basins. These activities have disturbed the landscape and removed much of the vegetation, which likely accounts for the ruderal vegetation that was characterized and mapped for the Cimarron Ridge Development Project (McGill 2015).

The areas where vegetation was removed for the Cimarron Ridge Development Project appear to have partially regrown in some areas, but remain in a ruderal condition (i.e., disturbed). Due to access limitations, it is unknown if these previously disturbed areas have re-established with native vegetation. Nonetheless, as previously indicated, the vegetation in these areas is based on the 2015 Habitat Assessment (McGill 2015), the Cimarron Ridge Development Project EIR, and review of aerial imagery (Google Earth Pro 2019). In addition, the area within the "Property Line" as shown on Figure 3 where the proposed water storage tank would be constructed appears to have been graded in 2016, resulting in vegetation removal. As a result, this area is now in a disturbed condition.

California Buckwheat Scrub

California buckwheat scrub occurs in a few small patches located west of Goetz Road in the southwest corner of the study area. California buckwheat scrub is dominated by California buckwheat (*Eriogonum fasciculatum*) with low numbers of other native shrubs including California sagebrush (*Artemisia californica*) and brittle bush (*Encelia farinose*). Additional species observed within this community include: deerweed (*Acmispon glaber*), wild oats (*Avena fatua*) and red brome (*Bromus madritensis ssp. rubens*) and red stemmed filaree (*Erodium*

cicutarium). Bare ground is present within approximately 0 to 10 percent of the California buckwheat scrub. California buckwheat scrub that occurs within the study area is dominated by short native shrubs with little to no understory.

Due to the prevalence of native plant species, California buckwheat scrub provides suitable habitat value for many special-status plant and wildlife species (Table 1). Birds that prefer to nest near the ground, such as California towhee (*Melozone crissalis*) and dove species, may nest within the California buckwheat scrub.

Brittlebush Scrub

Brittlebush scrub occurs in one small patch located south of McLaughlin Road just west of its intersection with Byers Road. Brittlebush scrub is dominated by brittlebush with low numbers of California buckwheat. Additional species observed within this community include: wild oats, red brome, and red stemmed filaree. Bare ground is present within approximately 10% to 20 percent% of the brittlebush scrub. Brittlebush scrub that occurs within the study area is located in an area previously impacted as part of initial activities on the Cimarron Ridge Development Project. As such, the area has been previously altered and the community has been allowed to repopulate the area in the absence of additional activities from that project. Brittlebush scrub provides low quality habitat for many of the species listed in Table 1 due to ongoing vegetation management and prior grading activities.

Non-Native Grassland

Non-native grassland is the most abundant vegetation community in the study area, specifically along portions of Goetz Road and Thornton Road. Non-native grassland areas are generally dominated by wild oats and red brome; however other non-natives, as well as native species, were also observed sporadically within this community that include: deerweed, common fiddleneck (*Amsinckia menziesii*), tocalote (*Centaurea melitensis*), dove weed (*Croton setiger*), common cryptantha (*Cryptantha intermedia*), jimson weed (*Datura wrigtii*), clustered tarweed (*Deinandra fasciculata*), red stemmed filaree, rattlesnake sandmat (*Euphorbia albomarginata*), common sunflower (*Helianthus annuus*), short-podded mustard (*Hirschfeldia incana*), pineapple weed (*Matricaria discoidea*), stinknet (*Oncosiphon piluliferum*), Jerusalem thorn (*Parkinsonia aculeate*), branching phacelia (*Phacelia ramosissima*), Russian thistle (*Salsola tragus*) and common Mediterranean grass (*Schismus barbatus*). Individual California sagebrush, brittlebush, and California buckwheat also occur intermittently within the non-native grassland. Bare ground exists within approximately 10 to 20 percent of the non-native grassland (in certain areas) due to off-road vehicle use and vegetation management. Non-native grasslands that occur along Thornton Road are regularly maintained by private landowners and are highly disturbed.

Due to the prevalence of low-growing annuals, non-native plant species, ongoing vegetation management and previous development, the non-native grasslands areas provide limited habitat value for many plant and wildlife species. However, this community does provide suitable habitat for burrowing owl, as well as other special-status wildlife and plant species, including nesting birds, as discussed further below in the special-status biological resources section.

Disturbed

Disturbed areas are characterized by signs of recent or past disturbances, typically in the form of heavily compacted soils and areas devoid of vegetation. Disturbed areas primarily consist of unpaved dirt roads, previously graded areas, such as around the proposed water storage tank site, as well as disturbed areas associated with the Cimarron Ridge Development Project. Disturbed areas generally have minimal vegetation present, and that which are present include mostly non-native ruderal species. Disturbed areas provide little to no habitat value for plants and animals, including nesting birds.

Developed

Developed areas include areas that have been constructed upon or otherwise physically altered to an extent that native vegetation is no longer present. Developed areas include paved roads, residential areas and landscaped areas in the study area. These areas include major roads such as Thornton Road and Goetz Road. Residential development occurs along the eastern portions of the proposed transmission pipeline and immediately surrounding the location of the proposed water storage tank site. Developed areas lack habitat value for most native wildlife species with the exception of resident and migratory birds that have become accustomed to urbanized areas.

Wildlife

Common birds observed during the assessment included red-shouldered hawk (*Buteo lineatus*), red-tailed hawk (*Buteo jamaicensis*), killdeer (*Charadrius vociferus*), American crow (*Corvus brachyrhynchos*), common raven, American kestrel (*Falco sparverius*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottos*), lesser goldfinch (*Spinus psaltria*), California horned lark (*Eremophila alpestris actia*), Eurasian collard-dove (*Streptopelia decaocto*). Other wildlife species observed included the California ground squirrel (*Otospermophilus beecheyi*). Other common species expected to occur that were not observed include, but not limited to, western fence lizard (*Sceloporus occidentalis*), mourning dove (*Zenaida macroura*), rock pigeon, European starling and house sparrow (*Passer domesticus*).

Special-Status Biological Resources

According to the CNDDB, CNPS and USFWS database queries, a total of 68 special-status plant species, 59 special-status wildlife species, and 6 sensitive natural communities have been previously recorded within the region. However, it was determined that 87 of these special-status species do not have the potential to occur in the study area due to the level of disturbance within the Project site and surrounding areas, as well as improper vegetation and soil requirements, and/or the study area is outside the known range for the species. The results of the database searches are provided in **Appendix C**.

Special-Status Plants and Wildlife

Based on the habitats (e.g., soils, vegetation type/cover, slope, hydrology, etc.) and vegetation communities or land cover (e.g., California Buckwheat Scrub, Brittlebush Scrub and Non-Native

Grassland) that are present, as well as previously recorded species occurrences in the region, it was determined that 19 special-status wildlife species and 20 special-status plant species have potential to occur within the study area and are discussed in **Table 1** below. Two special-status wildlife species, California horned lark and San Diego black-tailed jackrabbit, were observed to be present (foraging) in the study area. All but three wildlife species (Dulzura pocket mouse (*Chaetodipus californicus femoralis*), western mastiff bat (*Eumops perotis californicus*) and American badger (*Taxidea taxus*)) and three plant species (Santa Rosa basalt brodiaea (*Brodiaea santarosae)*, San Bernardino aster (*Symphyotrichum defoliatum*) and California screw grass (*Tortula californica*)) with potential to occur in the study area, are MSHCP-covered species. Table 1 identifies the protective status of the species that were observed as well as those that have the potential to occur based on their preferred habitat requirements and the quality of habitat located within the study area.

The potential for special-status species to occur is ranked as low, medium or high. The "Potential for Occurrence" category indicated in Table 1 is defined as follows:

- **Low Potential:** The Project area and/or immediate vicinity provides low-quality habitat for a particular species, such as improper substrate, disturbed or otherwise degraded habitat, or improper assemblage of desired vegetation, and/or the site is outside of the known range of the species.
- **Moderate Potential:** The Project area and/or immediate vicinity provides marginal habitat for a particular species. For example, proper substrate may be present, but the desired vegetation assemblage or density is less than ideal, or substrate and vegetation are suitable, but the site is outside of the known elevation range of the species.
- **High Potential:** The Project area and/or immediate vicinity provides high-quality or ideal habitat (i.e., soils, vegetation assemblage, and topography) for a particular species and/or there are known occurrences in the general vicinity of the Project area.

TABLE 1
SENSITIVE WILDLIFE AND PLANT SPECIES WITH POTENTIAL TO OCCUR AT THE STUDY AREA

Common Name	Scientific Name	Status1 (Federal/State/Other)	Habitat	Potential to Occur Within the Study Area
Mammals				
Dulzura pocket mouse	*Chaetodipus californicus femoralis*	None/SSC/None	Variety of habitats including coastal scrub, chaparral and grassland in San Diego County. Attracted to grass-chaparral edges.	**Low.** The California buckwheat scrub adjacent to the proposed water storage tank site provides marginal habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable habitat. Buckwheat scrub or grassland habitat may occur within the inaccessible areas of the Proposed Project; however, such areas have either been previously disturbed by the Cimarron Ridge Development and/or are fragmented from undisturbed native habitats. Closest CNDDB record is from 1993 and is located approximately 3.4 miles east of the study area.
northwestern San Diego pocket mouse	*Chaetodipus fallax*	None/SSC/None	Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County. Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	**Low.** The California buckwheat scrub adjacent to the proposed water storage tank site provides marginal habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable habitat. Buckwheat scrub or grassland habitat may occur within the inaccessible areas of the Proposed Project; however, such areas have either been previously disturbed by the Cimarron Ridge Development and/or are fragmented from undisturbed native habitats. Closest CNDDB record is from 1992 and is located approximately 3.8 miles southeast of the study area.
Stephen's kangaroo rat	*Dipodomys stephensi*	FE/ST/None	Coastal scrub, Valley and foothill grassland. Primarily annual and perennial grasslands, but also occurs in coastal scrub and sagebrush with sparse canopy cover. Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	**Low.** The California buckwheat scrub adjacent to the proposed water storage tank site provides marginal habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable habitat. Buckwheat scrub or grassland habitat may occur within the inaccessible areas of the Proposed Project; however, such areas have either been previously disturbed by the Cimarron Ridge Development and/or are fragmented from undisturbed native habitats. One CNDDB occurrence from 1999 is present in the study area.

Common Name	Scientific Name	Status1 (Federal/State/Other)	Habitat	Potential to Occur Within the Study Area
Western mastiff bat	*Eumops perotis californicus*	None/SSC/None	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland. Many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, chaparral, etc. Roosts in crevices in cliff faces, high buildings, trees and tunnels.	**Low.** The California buckwheat scrub and non-native grasslands within and adjacent to the proposed water storage tank site and pipeline provide suitable foraging habitat. No suitable roosting sites were observed during the 2019 habitat assessment conducted by ESA. Suitable coastal scrub or grassland habitat may occur within the inaccessible areas of the Proposed Project if these habitats have re-established since being disturbed over four years ago. Closest CNDDB record is from 1990 and is located approximately 0.1-mile south of the study area.
San Diego black-tailed jackrabbit	*Lepus californicus bennettii*	None/SSC/None	Intermediate canopy stages of shrub habitats and open shrub, herbaceous and tree, herbaceous edges. Coastal sage scrub habitats in Southern California.	**Present.** The California buckwheat scrub adjacent to the proposed water storage tank site provides suitable habitat. This species was observed in 2014 during surveys conducted in offsite areas for the Cimarron Ridge Development Project according the Cimarron Ridge Development EIR; however, the species was not observed during surveys conducted for the Project in 2015 or 2019. Aside from the 2014 observation, the closest CNDDB record is from 1998 and is located approximately 0.4-mile south of the study area.
Los Angeles pocket mouse	*Perognathus longimembris brevinasus*	None/SSC/None	Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin. Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	**Low.** The California buckwheat scrub adjacent to the proposed water storage tank site provides marginal habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable habitat. Buckwheat scrub or grassland habitat may occur within the inaccessible areas of the Proposed Project; however, such areas have either been previously disturbed by the Cimarron Ridge Development and/or are fragmented from undisturbed native habitats. Closest CNDDB record is from 1993 and is located approximately 3.8 miles east of the study area.

Common Name	Scientific Name	Status1 (Federal/State/Other)	Habitat	Potential to Occur Within the Study Area
American badger	*Taxidea taxus*	None/SSC/None	Numerous habitat types. Most abundant in drier open stages of most shrub, forest, and herbaceous habitats, with friable soils. Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	**Low.** The California buckwheat scrub adjacent to the proposed water storage tank site provides marginal habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable habitat. Buckwheat scrub or grassland habitat may occur within the inaccessible areas of the Proposed Project; however, such areas have either been previously disturbed by the Cimarron Ridge Development and/or are fragmented from undisturbed native habitats. No badgers or suitable burrows were observed during surveys conducted for the Project in 2015 or 2019. Closest CNDDB record is from 1893 and is located approximately 13.5 miles northeast of the study area.
Birds				
Golden eagle	*Aquila chrysaetos*	None/FP/None	Broadleaved upland forest, Cismontane woodland, Coastal prairie, Great Basin grassland, Great Basin scrub, Lower montane coniferous forest, Pinon and juniper woodlands and Upper montane coniferous forest. Valley and foothill grassland. Rolling foothills, mountain areas, sage-juniper flats, and desert. Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	**Low.** The non-native grasslands adjacent to the proposed water storage tank site and pipeline provide suitable foraging habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable foraging or nesting habitat. Suitable coastal scrub or grasslands may occur within the inaccessible areas of the Proposed Project if these habitats have regrown. Potential nesting habitat is limited to power poles. Species is sensitive to some forms of human disturbance and will occasional nest near areas with low housing density. Not observed during assessments conducted for the Project in 2015 or 2019 for areas that were able to be accessed; however, no focused surveys were conducted. Closest CNDDB record is from 1974 and is located approximately 0.7 mile southeast of the study area.

Common Name	Scientific Name	Status1 (Federal/State/Other)	Habitat	Potential to Occur Within the Study Area
burrowing owl	*Athene cunicularia*	None/SSC/None	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley and foothill grassland.	**Moderate.** The California buckwheat scrub adjacent to the proposed water storage tank site provides marginal foraging, overwintering and nesting habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable foraging or nesting habitat. Suitable coastal scrub or grasslands may occur within the inaccessible areas of the Proposed Project if these habitats have regrown. No burrowing owls or suitable burrows were observed during assessments conducted for the Project in 2015 or 2019; however, no focused surveys were conducted. CNDDB occurrences from 1999, 2001 and 2002 occur in the study area.
ferruginous hawk	*Buteo regalis*	None/SWL/None	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats.	**Low.** The California buckwheat scrub adjacent to the proposed water storage tank site provides marginal habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable habitat. Buckwheat scrub or grassland habitat may occur within the inaccessible areas of the Proposed Project; however, such areas have either been previously disturbed by the Cimarron Ridge Development and/or are fragmented from undisturbed native habitats. Closest CNDDB record is from 1008 and is located approximately 4.1 miles southeast of the study area.
Swainson's hawk	*Buteo swaisoni*	None/ST/None	Great Basin grassland, Riparian forest, Riparian woodland, Valley and foothill grasslands. Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannahs, and agricultural or ranch lands with groves or lines of trees. Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	**Low.** The non-native grasslands adjacent to the proposed water storage tank site and pipeline provide suitable foraging habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable foraging or nesting habitat. Suitable grasslands may occur within the inaccessible areas of the Proposed Project if this habitat has regrown. Suitable nesting habitat is absent. Closest CNDDB record is from 1933 and is located approximately 15.6 miles south of the study area.

Common Name	Scientific Name	Status1 (Federal/State/Other)	Habitat	Potential to Occur Within the Study Area
mountain plover	*Charadrius montanus*	None/SSC/None	Chenopod scrub, Valley and foothill grassland. Short grasslands, freshly plowed fields, newly sprouting grain fields, and sometimes sod farms. Short vegetation, bare ground, and flat topography. Prefers grazed areas and areas with burrowing rodents.	**Low.** The non-native grasslands adjacent to the proposed water storage tank site and pipeline provide suitable foraging and nesting habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable foraging or nesting habitat. Suitable grasslands may occur within the inaccessible areas of the Proposed Project if this habitat has regrown. Closest CNDDB record is from 2008 and is located approximately 81.3 miles southeast of the study area.
northern harrier	*Circus cyaneus*	None/SSC/None	Coastal scrub, Great Basin grassland, Marsh and swamp, Riparian scrub, Valley and foothill grassland and Wetland. Coastal salt and freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas. Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	**Low.** The California buckwheat scrub and non-native grasslands within and adjacent to the proposed water storage tank and pipeline provide suitable foraging habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable foraging or nesting habitat. Suitable coastal scrub or grasslands may occur within the inaccessible areas of the Proposed Project if these habitats have regrown. Suitable nesting habitat is absent. Closest CNDDB record is from 2006 and is located approximately 8 miles east of the study area.
white-tailed kite	*Elanus leucurus*	None/FP/None	Cismontane woodland, Marsh and swamp, Riparian woodland, Valley and foothill grassland, Wetland. Rolling foothills and valley margins with scattered oaks and river bottomlands or marshes next to deciduous woodland. Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	**Low.** The non-native grasslands adjacent to the proposed water storage tank site and pipeline provide suitable foraging habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable foraging or nesting habitat. Suitable grasslands may occur within the inaccessible areas of the Proposed Project if this habitat has regrown. Suitable nesting habitat is absent. Closest CNDDB record is from 2006 and is located approximately 9.5 miles east of the study area.

Common Name	Scientific Name	Status1 (Federal/State/Other)	Habitat	Potential to Occur Within the Study Area
California horned lark	*Eremophila alpestris actia*	None/SWL/None	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills. Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	**Present.** The non-native grasslands adjacent to the proposed water storage tank site and pipeline provide suitable foraging and nesting habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable foraging or nesting habitat. Suitable grasslands may occur within the inaccessible areas of the Proposed Project if this habitat has regrown. Observed onsite during the 2015 and 2019 assessments for the Project. Closest CNDDB record is from 2000 and is located approximately 1.4 miles south of the study area.
merlin	*Falco columbarius*	None/SWL/None	Seacoast, tidal estuaries, open woodlands, savannahs, edges of grasslands and deserts, farms and ranches. Clumps of trees or windbreaks are required for roosting in open country.	**Low.** The non-native grasslands adjacent to the proposed water storage tank site and pipeline provide suitable foraging habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable foraging or nesting habitat. Suitable grasslands may occur within the inaccessible areas of the Proposed Project if this habitat has regrown. Suitable nesting habitat is absent. Closest CNDDB record is from 1993 and is located approximately 39.7 miles northwest of the study area.
coastal California gnatcatcher	*Polioptila californica*	FT/SSC/None	Coastal bluff scrub, Coastal scrub. Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California. Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	**Low.** Scrub communities present lack the density and height associated with nesting and are adjacent to roads and/or residences. Critical habitat occurs just north of the study area west of Goetz Road (see Figure 4) but outside of the work area for the Project. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable foraging or nesting habitat. Suitable coastal scrub may occur within the inaccessible areas of the Proposed Project if this habitat has regrown. Closest CNDDB record is from 2003 and is located approximately 0.4-mile south of the study area.

Common Name	Scientific Name	Status1 (Federal/State/Other)	Habitat	Potential to Occur Within the Study Area
Reptiles				
orange-throated whiptail	*Aspidoscelis hyperythra*	None/SSC/None	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats. Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food: termites.	**Moderate.** The California buckwheat scrub adjacent to the proposed water storage tank and pipeline provides suitable habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable habitat. Suitable coastal scrub or grasslands may occur within the inaccessible areas of the Proposed Project if these habitats have regrown. Closest CNDDB record is from 1999 and is located approximately 0.2 miles north of the study area.
red-diamond rattlesnake	*Crotalus ruber*	None/SSC/None	Chaparral, woodland, grassland, and desert areas from coastal San Diego County to the eastern slopes of the mountains. Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	**Moderate.** The California buckwheat scrub and non-native grasslands within and adjacent to the proposed water storage tank and pipeline provide suitable habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable habitat. Suitable coastal scrub or grasslands may occur within the inaccessible areas of the Proposed Project if these habitats have regrown. Closest CNDDB record is from 2001 and is located approximately 2 miles south of the study area.
coastal horned lizard	*Phrynosoma blainvillii*	None/SSC/None	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon and juniper woodlands, Riparian scrub, Riparian woodland, Valley and foothill grassland. Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes. Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	**Moderate.** The California buckwheat scrub and non-native grasslands within and adjacent to the proposed water storage tank and pipelines provide suitable habitat. Accessible portions of the Proposed Project, which are limited to disturbed and developed areas, do not provide suitable habitat. Suitable coastal scrub or grasslands may occur within the inaccessible areas of the Proposed Project if these habitats have regrown. Closest CNDDB record is from 2005 and is located approximately 3.6 miles west of the study area.

Common Name	Scientific Name	Status1 (Federal/State/Other)	Habitat	Potential to Occur Within the Study Area
Plants				
Munz's onion	*Allium munzii*	FE/ST/1B.1	Chaparral, coastal scrub, cismontane woodland, pinyon and juniper woodland, valley and foothill grassland. Heavy clay soils; grows in grasslands and openings within shrublands or woodlands. 375-1040 m above mean sea level (AMSL).	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 1897 and is located approximately 2.5 miles east of the study area.
San Diego ambrosia	*Ambrosia pumila*	FE/None/1B.1	Chaparral, coastal scrub, valley and foothill grassland. Sandy loam or clay soil; sometimes alkaline. In valleys; persists where disturbance has been superficial. Sometimes on margins or near vernal pools. 3-580 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 2005 and is located approximately 4.8 miles west of the study area.
Jaeger's milk-vetch	*Astragalus pachypus var. jaegeri*	None/None/1B.1	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland. Dry ridges and valleys and open sandy slopes; often in grassland and oak-chaparral. 365-1040 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 1922 and is located approximately 14 miles northeast of the study area.

Common Name	Scientific Name	Status1 (Federal/State/Other)	Habitat	Potential to Occur Within the Study Area
San Jacinto Valley crownscale	*Atriplex coronata var. notatior*	FE/None/1B.1	Playas, valley and foothill grassland, vernal pools. Alkaline areas in the San Jacinto River Valley. 35-460 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 2000 and is located approximately 1.8 miles north of the study area.
thread-leaved brodiaea	*Brodiaea filifolia*	FT/SE/1B.1	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools. Usually associated with annual grassland and vernal pools; often surrounded by shrubland habitats. Occurs in openings on clay soils. 15-1030 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 1930 and is located approximately 1.1 miles north of the study area.
Santa Rosa Basalt brodiaea	*Brodiaea santarosae*	None/None/1B.2	Valley and foothill grassland. Santa Rosa Basalt. 585-1045 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 2012 and is located approximately 10 miles southwest of the study area.

Common Name	Scientific Name	Status1 (Federal/State/Other)	Habitat	Potential to Occur Within the Study Area
Plummer's mariposa-lily	*Calochortus plummerae*	None/None/4.2	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest. Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 60-2500 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 2008 and is located approximately 14.5 miles northeast of the study area.
intermediate mariposa-lily	*Calochortus weedii var. intermedius*	None/None/1B.2	Coastal scrub, chaparral, valley and foothill grassland. Dry, rocky calcareous slopes and rock outcrops. 60-1575 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 2003 and is located approximately 8.9 miles south of the study area.
smooth tarplant	*Centromadia pungens ssp. laevis*	None/None/1B.1	Valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland. Alkali meadow, alkali scrub; also in disturbed places. 5-1170 m AMSL.	**Low.** This species is known to occur within disturbed areas; however, this species is typically associated with riparian and (wet) meadow habitats, and playas. Closest CNDDB record is from 2000 and is located approximately 1.7 miles north of the study area.
Parry's spineflower	*Chorizanthe parryi var. parryi*	None/None/1B.1	Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. Dry slopes and flats; sometimes at interface of 2 vegetation types, such as chaparral and oak woodland. Dry, sandy soils. 90-1220 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. One CNDDB occurrence from 2001 occurs within the study area.

Common Name	Scientific Name	Status1 (Federal/State/Other)	Habitat	Potential to Occur Within the Study Area
long-spined spineflower	*Chorizanthe polygonoides var. longispina*	None/None/1B.2	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools. Gabbroic clay. 30-1630 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 2008 and is located approximately 3 miles northwest of the study area.
San Miguel savory	*Clinopodium chandleri*	None/None/1B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland, Ultramafic, Valley and foothill grassland, Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland. Rocky, gabbroic or metavolcanic substrate. 120-975 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 1965 and is located approximately 10.7 miles south of the study area.
many-stemmed dudleya	*Dudleya multicaulis*	None/None/1B.2	Chaparral, coastal scrub, valley and foothill grassland. In heavy, often clayey soils or grassy slopes. 1-910 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 2010 and is located approximately 11.2 miles west of the study area.

Common Name	Scientific Name	Status1 (Federal/State/Other)	Habitat	Potential to Occur Within the Study Area
San Diego button-celery	*Eryngium aristulatum var. parishii*	FE/SE/1B.1	Vernal pools, coastal scrub, valley and foothill grassland. San Diego mesa hardpan and claypan vernal pools and southern interior basalt flow vernal pools; usually surrounded by scrub. 15-880 m AMSL.	**Low.** The Proposed Project supports marginal vegetation habitat, such as buckwheat scrub and non-native grassland; however, no vernal pool habitat has been documented in the area. Closest CNDDB record is from 2009 and is located approximately 12.8 miles south of the study area.
Palmer's grapplinghook	*Harpagonella palmeri*	None/None/4.2	Chaparral, coastal scrub, valley and foothill grassland. Clay soils; open grassy areas within shrubland. 20-955 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 1981 and is located approximately 7.2 miles southeast of the study area.
little mousetail	*Myosurus minimus ssp. apus*	None/None/3.1	Vernal pools, valley and foothill grassland. Alkaline soils. 20-640 m AMSL.	**Low.** The Proposed Project supports marginal vegetation habitat, such as non-native grassland; however, no vernal pool habitat has been documented in the area. Closest CNDDB record is from 1993 and is located approximately 5.8 miles east of the study area.
prostrate vernal pool navarretia	*Navarretia prostrata*	None/None/1B.1	Coastal scrub, valley and foothill grassland, vernal pools, meadows and seeps. Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. 3-1235 m AMSL.	**Low.** The Proposed Project supports marginal vegetation habitat, such as buckwheat scrub and non-native grassland; however, no vernal pool habitat, including alkaline soils, has been documented in the area. Closest CNDDB record is from 2009 and is located approximately 13.3 miles south of the study area.

Common Name	Scientific Name	Status1 (Federal/State/Other)	Habitat	Potential to Occur Within the Study Area
Hammitt's clay-cress	*Sibaropsis hammittii*	None/None/1B.2	Valley and foothill grassland, chaparral. Mesic microsites in open areas on clay soils in Stipa grassland. Often surrounded by Adenostoma chaparral. 715-1040 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 2016 and is located approximately 10.1 miles southwest of the study area.
San Bernardino aster	*Symphyotrichum defoliatum*	None/None/1B.2	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland. Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 3-2045 m AMSL.	**Low.** The Proposed Project supports marginal vegetation habitat, such as buckwheat scrub and non-native grassland; however, no riparian habitat, has been documented in the area. Closest CNDDB record is from 1923 and is located approximately 11.7 miles south of the study area.
California screw grass	*Tortula californica*	None/None/1B.2	Chenopod scrub, valley and foothill grassland. Moss growing on sandy soil. 10-1460 m AMSL.	**Low.** The Proposed Project supports marginal habitat due to previous disturbances. The limited areas within the Proposed Project that have been disturbed by the Cimarron Ridge Development that were not accessible during the 2019 habitat assessment may support suitable habitat, such as buckwheat scrub and non-native grassland, since activities have remained dormant for over four years. Closest CNDDB record is from 2012 and is located approximately 10.5 miles northeast of the study area.

[1] Federal/State/Other Status: FE – Federally Endangered; FT – Federally Threatened; FC – Federal Candidate; SE – State Endangered; ST – State Threatened, SSC – State Special Status Species, SWL – State Watch List, FP –State Fully Protected; 1B;

1A – Plants presumed extirpated in California and either rare or extinct elsewhere, 1B – Plants rare, threatened, or endangered in California and elsewhere, 2A - Plants presumed extirpated in California but common elsewhere, 2B – Plants rare, threatened or endangered in California, but more common elsewhere, 3 - Plants about which more information is needed, and 4 – Plants of limited distribution; CNPS Threat Ranks 0.1 – Seriously threatened in California (over 80% of occurrences threatened/high degree and immediacy of threat, 0.2 – Moderately threatened in California (20-80% of occurrences threatened/moderate degree and immediacy of threat), and 0.3 – Not very threatened in California (less than 20% of occurrences threatened/low degree and immediacy of threat or no current threats known.

Sensitive Natural Communities

Sensitive natural communities are of limited distribution statewide or within a county or region. These communities may or may not contain special-status species or their habitat, and are independently considered sensitive by CDFW. For purposes of this EIR, sensitive natural communities include vegetation communities identified in the List of Natural Communities with Holland Types (CDFW 2018a) with a CNDDB state rank of S1, S2, or S3. There are no sensitive natural communities within the Proposed Project, which includes portions of the Project that occur within the Cimarron Ridge Development. The California buckwheat scrub, non-native grassland, disturbed and developed areas that have been identified are not considered sensitive natural communities as they are either not ranked or have a rank of S4 or higher.

Results

Special-Status Wildlife Species

The non-native grasslands and brittlebush scrub shown in Figure 3 provide low quality habitat for many of the species listed in Table 1 due to ongoing vegetation management and prior grading activities. The non-native grasslands west of Goetz Road (extending south of the 0.4 marker below the Goetz Road-McLaughlin Road intersection) does not appear to have been disturbed by ongoing vegetation management or grading and therefore provides higher quality habitat for wildlife. High quality California buckwheat scrub occurs in patches adjacent to the proposed water tank site, which provides habitat for several of the special-status wildlife species identified in Table 1. Conversely, the areas that have been previously graded and maintained support poor (low) quality habitat for supporting special-status species.

Two species are considered present onsite: California horned lark and San Diego black-tailed jackrabbit. California horned lark was observed during the assessments conducted for the Project in 2015 and 2019. The San Diego black-tailed jackrabbit was observed in 2014 during biological resources surveys conducted for the Cimarron Ridge Development Project's offsite improvements, although the exact location was not given. Open areas containing non-native grasslands provide varying quality suitable foraging and nesting habitat for California horned lark and suitable habitat for San Diego black-tailed jackrabbit. The remaining groups identified in Table 1 are discussed below.

Many of the remaining special-status bird and mammal species identified in Table 1 have a moderate potential to occur in suitable, intact, non-native grassland habitat and California buckwheat scrub that occur within the study area. However, these species are determined to have a low potential to occur in the disturbed non-native grassland and brittlebush scrub habitat located to the south of Thorton Avenue, on the north and south sides of McLaughlin Avenue, and west of Goetz Road as depicted on Figure 3.

The study area lacks suitable trees for special-status raptor species to nest in, including ferruginous hawk, Swainson's hawk, northern harrier, white-tailed kite and merlin, including cliff nesting habitat for golden eagle. The non-native grassland in the study area provide marginal nesting habitat for mountain plover; however, this species has low potential to occur due the

surrounding developments in the area. Although not observed, the non-native grassland areas depicted on Figure 3 provide marginal habitat for burrowing owl. Numerous Burrowing owl are known to occupy ground squirrel burrows and several California ground squirrel were observed within the grassland areas during the survey. Additionally, three historic CNDDB occurrences for burrowing owl occur within the study area.

Open areas consisting of non-native grasslands and California buckwheat scrub provide suitable habitat for red-orange-throated whiptail, diamond rattlesnake and coast horned lizard. While no individuals or sign thereof was observed during the assessment, suitable habitat exists within appropriate habitat within the study area. These species have a moderate potential to occur in low quality non-native grassland, brittlebush scrub and disturbed areas, and a moderate potential to occur in non-native grassland and California buckwheat scrub.

The construction and operation of the Project may have negative effects on special-status wildlife species located in the region.

Special-Status Plant Species

As indicated in Table 1, the non-native grassland and California buckwheat scrub within the study area provides suitable habitat for several special-status plant species, especially in areas where ongoing vegetation management and/or grading has not occurred. As such, construction of the Project may present negative effects on the special-status plants located in the region.

Sensitive Natural Communities

No CDFW sensitive natural communities or riparian habitats occur within the study area.

Critical Habitat

Critical habitat, which USFWS determines is required for the survival and recovery of listed species, is present for the coastal California gnatcatcher (*Polioptila californica*) just north of the 500-foot study area that is located west of Goetz Road (see **Figure 4**). This critical habitat is located outside of all work areas associated with the proposed water storage tank site and transmission pipeline. In addition, critical habitat for thread-leaved brodiaea and spreading navarretia (*Navarretia fossalis*) occurs approximately 1.5 miles north of the study area along the San Jacinto River.

Nesting Birds

The habitat within the study area is generally considered low quality for supporting nesting birds due to the developed and disturbed condition and dominance of non-native grass species that do not typically provide suitable nesting habitat to a variety of species. However, some species may nest within the California buckwheat scrub in the study area and there are birds that will nest on the bare ground, such as killdeer and a few species that will nest in areas of low-growing vegetation such as mourning dove and burrowing owl.

Jurisdictional Waters

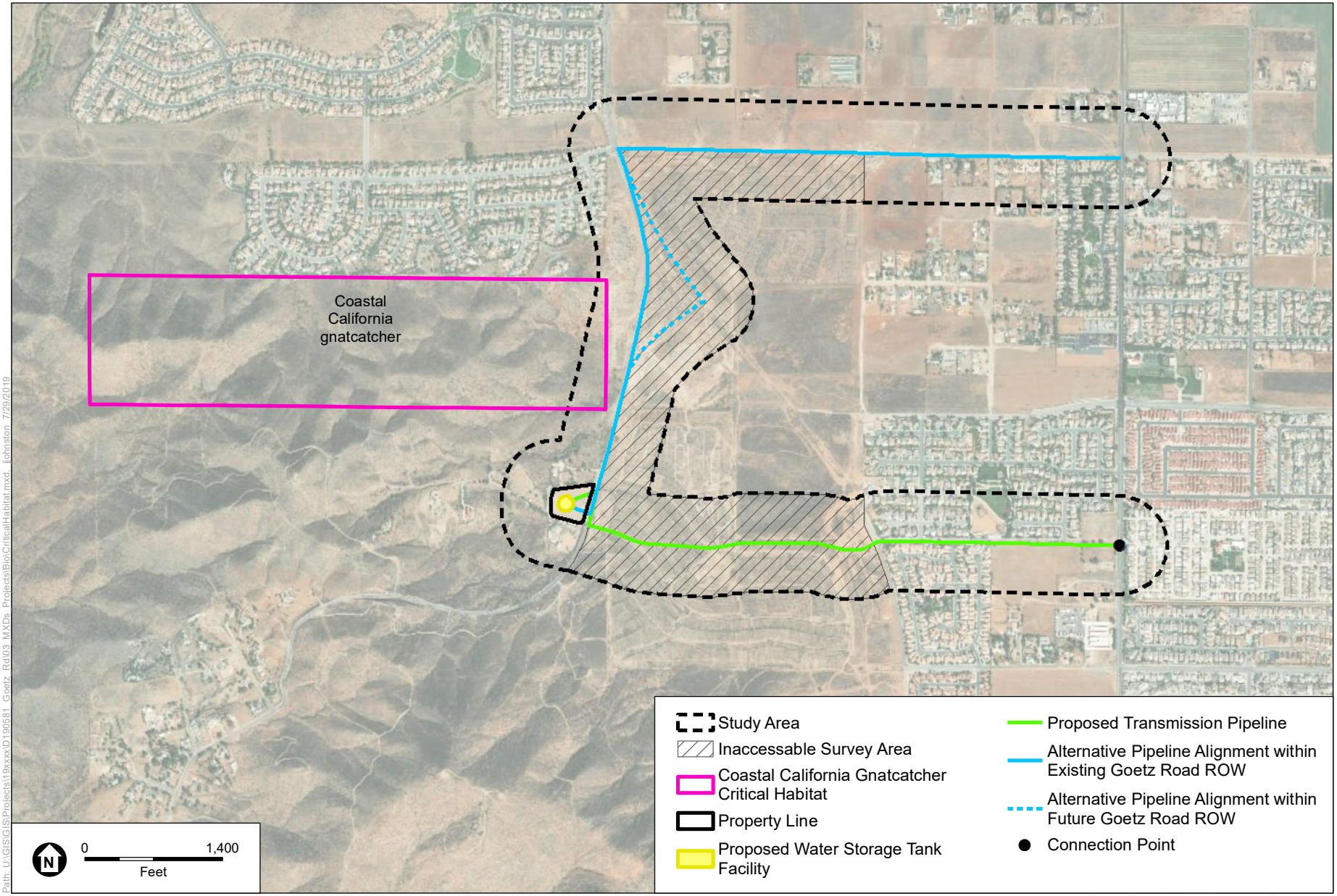
Based on the 2015 and 2019 habitat assessments (McGill 2015 and ESA 2019) and the Cimarron Ridge Development Project EIR, there are no jurisdictional waters present, which includes "waters of the United States" regulated by the U.S. Army Corps of Engineers (USACE) and "waters of the State" regulated by the Regional Water Quality Control Board (RWQCB). A Streambed Alteration Agreement (CDFW 2004, 2018b [amended]) was issued for Cimarron Ridge Development Project. The location of these jurisdictional waters were not detailed in the Cimarron Ridge Development Project EIR or Streambed Alteration Agreement other than being located north of Chambers Avenue, south of McLaughlin Road, east of Goetz Road and west of Geary Street. According to the Romoland USGS Quadrangle 7.5-minute map, there are two blue-line streams in the study area; one located within a residential development located south of the proposed transmission pipeline and a second located just north of the proposed water storage tank site (see **Figure 5**). Both of these historic blue-line streams have been substantially disturbed by the Cimarron Ridge Development Project and construction of Goetz Road. Currently, there is no evidence of a natural stream courses at the location of the blue-line streams identified on the USGS map, including associated riparian habitat, due to existing developments that have previously impacted these areas.

Protected Trees

The study area is located within the cities of Menifee and Perris, which both have public and private tree planting and removal ordinances that prohibit the removal of trees or shrubs within public parks, public grounds, public streets, and other public and private areas without prior permission. Trees protected under these respective ordinances, such as southern magnolia and eucalyptus species, occur in the study area; none are present within the construction footprint of the Proposed Project.

Western Riverside MSHCP

The study area is located within Roughstep 3 of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP, **Figure 6**), and within the MSHCP's burrowing owl survey area and the MSHCP's Narrow Endemic Plant Species survey area. Narrow endemic plant species within the survey area include Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass and Wrights's trichocoronis. The 2015 Habitat Assessment prepared for the Project did not document observations of narrow endemic species; however, a focused survey for these species was not conducted. The Cimarron Ridge Development Project indicates that no narrow endemic species are present within the portion of the Proposed Project that occurs within the Cimarron Ridge Development Project. No narrow endemic species are expected to occur within that Proposed Project due to the level of existing disturbances and development that has removed suitable habitat for narrow endemic plants, such as housing pads, dirt roads and similar development associated with the Cimarron Ridge Development Project. It is important to note that some of the inaccessible portions of the Proposed Project that occur on the Cimarron Ridge Development Project may consist of conditions that are suitable for narrow endemic plants, as well as wintering and/or breeding habitat for burrowing owl.

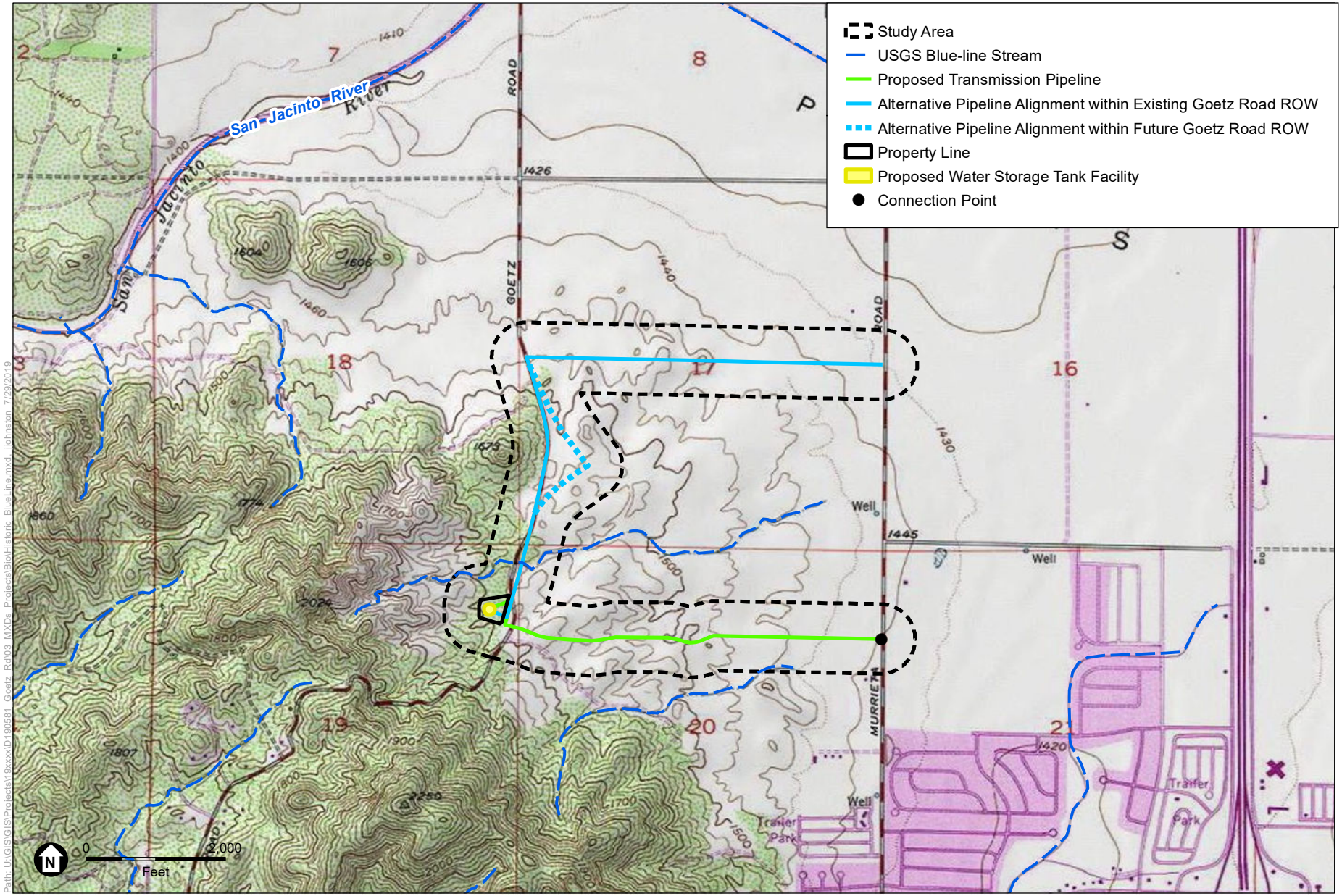


SOURCE: DigitalGlobe 2018; USFWS 2019

Goetz Road Potable Water Storage Tank and Transmission Pipeline Project

Figure 4
Critical Habitat Map

ESA

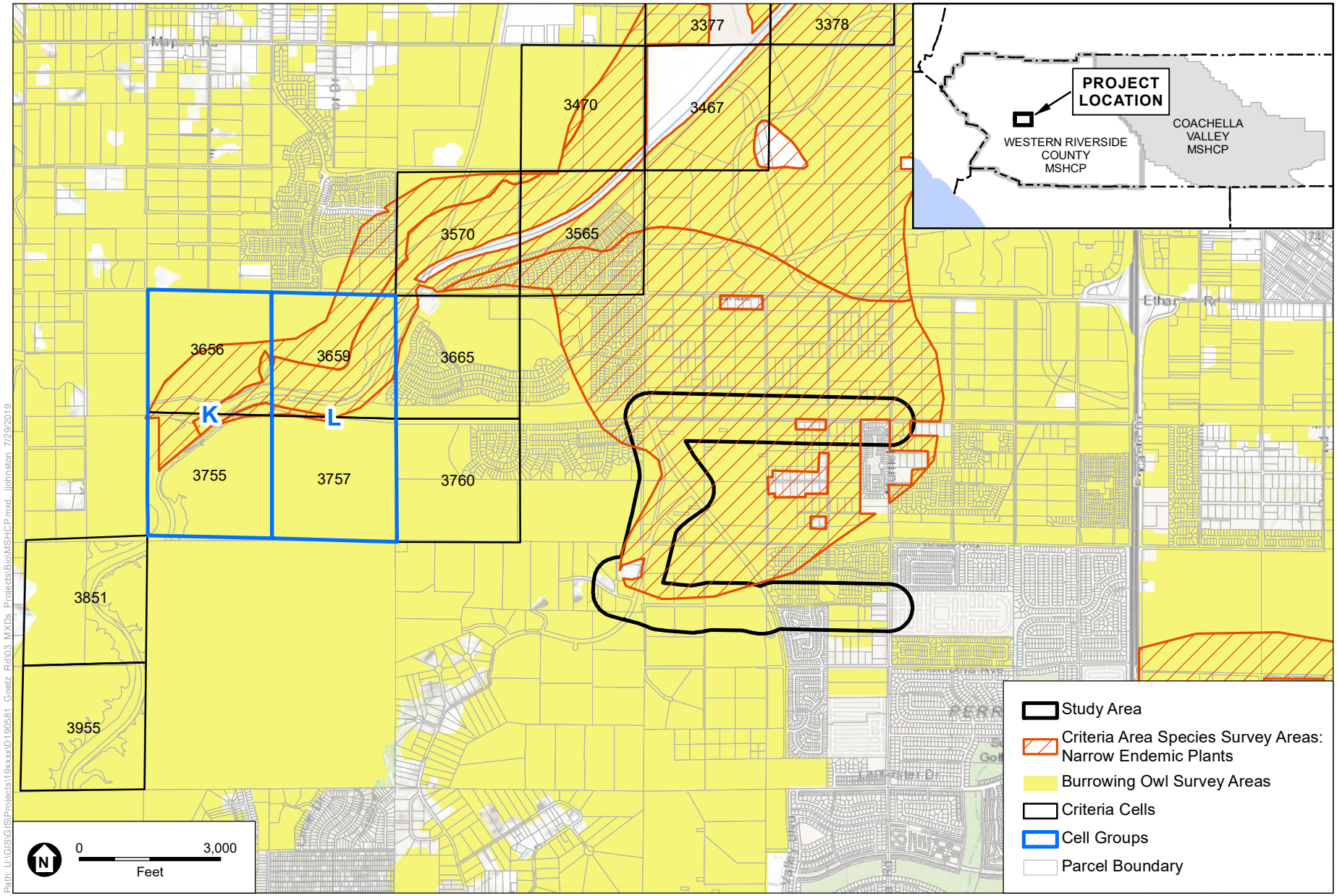


SOURCE: USGS 7.5' Topo Quad Romoland 1976, 1980; National Hydrography Dataset

Goetz Road Potable Water Storage Tank and Transmission Pipeline Project

Figure 5
Historic USGS Blue-Line Features

ESA



SOURCE: County of Riverside June 2019

Goetz Road Potable Water Storage Tank and Transmission Pipeline Project

Figure 6
Western Riverside County MSHCP Map

ESA

Stephens's Kangaroo Rat Habitat Conservation Plan

The Proposed Project is located within the SKR HCP. The majority of the non-native grassland that occurs in the study area is comprised of poor quality habitat for Stephens's kangaroo rat (*Dipodomys stephensi*) due to existing disturbances and development associated with the Cimarron Ridge Development Project, an SCE easement along Goetz Road, as well as disturbances associates with other private properties. There are some small patches of non-native grassland and California buckwheat scrub in the study area that provide marginal habitat for Stephens's kangaroo rat; however, these isolated areas are fragmented and surrounded by disturbed and/or developed lands.

Wildlife Movement Corridors

A wildlife movement corridor is an area connecting fragmented habitats and wildlife populations, often separated by human activities or structures (such as roads, development, or logging). Wildlife movement corridors allow an exchange of individuals between populations, which may help prevent the negative effects of inbreeding and reduced genetic diversity (via genetic drift) that often occur within isolated populations. Corridors may also help facilitate the re-establishment of populations that have been reduced or eliminated due to random events, such as fires or disease.

The study area is located within partially urbanized areas of the cities of Menifee and Perris and is surrounded by both developed and undeveloped lands. Undeveloped lands include areas west and east of Goetz Road and south of the proposed transmission pipeline. Residential areas to the east of the study area, including the Cimarron Ridge Development, limit wildlife movement through the study area. A new residential development that is located 1.15-mile north of the study area will further restrict wildlife movement in the vicinity. There are no corridors in the immediate vicinity of the project connecting large areas of habitat. However, undeveloped open space occurs to the west of the study area along the San Jacinto River and the riverbed may be used as a corridor for wildlife movement. The nearest extent of the Santa Jacinto River to the Proposed Project is over one-mile to the northwest.

Recommended Minimization and Avoidance Measures

Vegetation Mapping

Detailed vegetation mapping should be conducted in areas that were inaccessible during the 2019 assessment. The inaccessible areas are limited to those within the Cimarron Ridge Development Project which have been unmaintained for the past four years since the 2015 Habitat Assessment was conducted for the Project. Vegetation in the inaccessible areas could have re-established and may support a higher concentration of native species than was reported in 2015, which could provide suitable habitat for special-status species.

Special-status Wildlife

The proposed transmission pipeline and alternative pipeline alignment are limited to existing paved and dirt access road right-of-ways, as well as areas that were previously graded as part of

the Cimarron Ridge Development Project. The proposed potable water storage tank is located on a parcel of land that has been heavily disturbed and manipulated to bare ground; therefore, the Project is not anticipated to affect many of the special-status wildlife species included in Table 1. Those identified as being present, or having high potential to occur, will require additional minimization and avoidance measures as described below.

Mammals

Due to the presence of suitable habitat and confirmed presence of species during surveys conducted for the Cimarron Ridge Development Project, preconstruction surveys for San Diego black-tailed jackrabbit should be conducted prior to the start of ground-disturbing activities. If the species is present within areas that will be directly impacted by construction or operation of the Project, a species relocation plan should be prepared to minimize impacts, including mortality. The relocation plan should be approved by CDFW and should identify biologist qualifications, handling methods, and relocation sites. Measures should be implemented to minimize the Project's impacts on special-status mammals, such as installation of exclusionary fencing, active monitoring, worker environmental awareness training, limiting vehicle speed onsite to 15 miles per hour, installing wildlife escape ramps in open trenches or pits, and cleaning up all trash and debris daily.

Burrowing Owl

Due to the presence of suitable habitat and CNDDB recorded occurrences within the study area, protocol surveys for burrowing owl should be conducted prior to initiation of the Project. Protocol surveys should be conducted within the non-native grassland, California buckwheat scrub and brittlebush scrub areas as shown on Figure 3 to identify the presence or absence of the species. The protocol surveys must be conducted by a knowledgeable biologist following agency-approved protocols. The CDFW Staff Report on Burrowing Owl Mitigation (CDFW 2012) should be followed on EMWD-owned parcels; whereas, for parcels not owned by EMWD, the burrowing owl survey must follow the Burrowing Owl Survey Instructions for the Western Riverside Multiple Species Habitat Conservation Plan Area (RCA 2006).

If burrowing owl is observed during the focused surveys and found to be potentially impacted by the Project, avoidance and mitigation measures will be required, such as constructing Project facilities outside the breeding season (February 1 to August 31), establishing a suitable buffer around an active burrow, restricting activities around certain times of year, and excluding and relocating owls. A Burrow Exclusion Plan approved by CDFW and/or RCA will be required to implement exclusion and relocation. Permanent impacts to land that supports burrowing owls may require conservation of mitigation lands to offset the impact to burrowing owl and its habitat. The conservation of mitigation lands will be determined through consultation with CDFW and/or the RCA depending on the ownership of the occupied land.

Nesting Birds

To avoid potential impacts to nesting birds, including California horned lark, it is recommended that any vegetation removal and/or ground disturbance be timed to occur between September 1 and January 31, which is outside of the typical nesting season for birds in the region. If vegetation

removal and/or ground disturbances must occur during the typical nesting season (February 1 – August 31), it is recommended that a qualified biologist conduct a preconstruction survey for active nests within areas that will be subject to vegetation removal and/or ground disturbances, including an approximate 300-foot buffer to identify active nests that may be indirectly affected by construction activities. Buffer distances should be adjusted at the discretion of the biologist based on the location of the nest, species, surrounding land uses, and the proposed work to be performed. If no sign of nesting activity is observed, construction may proceed without potential impacts to nesting birds.

If an active nest is observed during the pre-construction clearance survey, an adequate buffer should be established around the active nest depending on sensitivity of the species and proximity to Project impact areas. Onsite construction monitoring may also be required to ensure that no direct or indirect impacts occur to the active nest. Project activities should be avoided within the buffer, unless otherwise approved by the monitoring biologist. The buffer should be delineated with exclusionary fencing or flagging to prevent the nest from being inadvertently impacted, and should remain in place until the nest is no longer active as determined by the monitoring biologist.

Jurisdictional Waters

There are no jurisdictional waters present in the immediate Project vicinity; however, there are two blue-line streams in the study area; one located within a residential development, south of the proposed transmission pipeline; and a second located just north of the proposed water storage tank site. Both of these historic blue-line streams have been substantially disturbed by the Cimarron Ridge Development Project and construction of Goetz Road. Currently, there is no evidence of a natural stream courses at the location of the blue-line streams identified on the USGS map, including associated riparian habitat, due to existing developments that have previously impacted these areas.

Western Riverside MSHCP

The Project occurs within both the Western Riverside MSHCP and the SKRHCP. EMWD is not a Participating Entity in the MSCHP and is not required to demonstrate project consistency with the goals and provisions of the MSHCP as they pertain to biological resources on EWMD-owned lands (such as the water storage tank site) (RCA 2003). EWMD is, however, required to demonstrate consistency with the MSHCP on non-EWMD-owned lands (such as the disturbed area between the water storage tank site and Goetz Road, and the Cimarron Ridge Development Project site through which the transmission pipeline would be installed) (RCA 2003). Should burrowing owls be found to occur in the areas that would be disturbed during construction activities, a consistency analysis report and a Determination of Biologically Equivalent or Superior Preservation (DBESP) Report must be prepared to ensure the Project would not conflict with the provisions of the MSHCP. In addition, construction guidelines listed under Section 7.5.3, and standard best management practices (BMPs) listed under Appendix C of the MSHCP, are required to be implemented during construction and operations activities.

San Bernardino Kangaroo Rat HCP

The Project occurs within the SKR HCP fee area. However, all suitable non-native grassland and California buckwheat scrub able to support Stephens's kangaroo rat within the study area would be avoided by the Project. However, the portions of the Project that are within the Cimarron Ridge Development that were impacted over four years ago may contain suitable habitat for Stephens's kangaroo rat. Because this portion of the Project is not owned by EMWD, consistency with the SKR HCP (Riverside County Habitat Conservation Agency 1996) must be demonstrated. The SKR HCP requires that direct and indirect impacts to Stephens's kangaroo rat, including habitat destruction of occupied land, be mitigated either via onsite preservation of land or the payment of the mitigation fee set out by the County ordinance. Mitigation fees are used to finance the implementation of the SKR HCP.

On non-EMWD-owned lands where suitable habitat for Stephens's kangaroo rat is present, EMWD should comply with all requirements of the SKR HCP and should consult with the RCHCA accordingly.

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Appendix A

2015 Goetz Road Potable Water Storage Tank and Transmission Pipeline Habitat Assessment

GOETZ ROAD POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE

Habitat Assessment

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September 2015

GOETZ ROAD POTABLE WATER STORAGE TANK AND TRANSMISSION PIPELINE

CITIES OF MENIFEE AND PERRIS, RIVERSIDE COUNTY, CALIFORNIA

Habitat Assessment

The undersigned certify that the statements furnished in this report and exhibits present data and information required for this biological evaluation, and the facts, statements, and information presented is a complete and accurate account of the findings and conclusions to the best of our knowledge and beliefs.

Travis J. McGill
Natural Resources

Thomas J. McGill, Ph.D.
Natural Resources

September 2015

Executive Summary

The Goetz Road Potable Water Storage Tank and Transmission Pipeline Project is located in the Cities of Menifee and Perris, Riverside County, California. The Eastern Municipal Water District (EMWD) intends to construct, operate and maintain a 13.4 million gallon potable water storage tank and new transmission pipeline to correct some of the deficiencies in the 1627 pressure zone. As identified in EMWD's Water Facilities Master Plan, the 1627 pressure zone has a number of deficiencies, including low pressure, inadequate intra-zone transmission, deficient storage, and insufficient pumping capacities. EMWD acquired a 2.85-acre parcel on the northwest corner of Goetz Road and Sotelo Road for a proposed 13.4 million gallon (MG) potable water storage tank to address the initial phase of these deficiencies. A new transmission pipeline is proposed to connect the new tank to the existing 1627 transmission pipeline within Murrieta Road. At this time, EMWD is considering two alternative alignments for the transmission pipeline; Alignment A-5 and Alignment B-7.

Land uses in the vicinity of the project site include a mix of residential developments and vacant, undeveloped properties. The areas to the northwest, north, east, and south of the project site are composed of a mix of developed and undeveloped properties. These developed properties primarily consist of residential developments while the undeveloped properties primarily support a non-native grassland plant community. The areas west of the project site are relatively undeveloped and extend into natural rolling hills that supports a mix of Riversidean sage scrub and non-native grassland plant communities.

On-site and surrounding land uses have heavily disturbed, if not completely eliminated, naturally occurring habitats from the majority of the proposed project footprint and surrounding area. The project site has been subject to various types of human disturbance including development, grading activities for the Cimarron Ridge development, weed abatement activities, illegal dumping, and off-road vehicle use. The two proposed pipeline alternatives will primarily be installed within existing paved roads and dirt access roads, within existing public right-of-way. The proposed Goetz Road potable water storage tank is located is located on a parcel of land that has been heavily disturbed from weed abatement activities and surrounding development.

No undisturbed, natural plant communities were observed within the survey area during the habitat assessment. One (1) plant community were observed within the survey area, non-native grassland. There is also an area on the southeast corner of the intersection of Goetz Road and Goldenroad Avenue that supports a patch of willow trees. Additionally, there are two (2) areas that were classified as disturbed, and developed areas. These are areas are not vegetation classifications, rather a land cover type.

No special-status plant or wildlife species, except for horned lark, were observed within the survey area during the site visit. The majority of the project site is developed or was graded for the Cimarron Ridge development which has removed natural plant communities that once occurred in the general area. As a result it no sensitive plant species are expected to occur on-site and are presumed absent. Based on habitat requirements for specific species as well as the availability and quality of habitats needed by the sensitive wildlife species known to occur in the area, it was determined that the project site has a low potential to provide suitable habitat for golden eagle (*Aquila chrysaetos*), burrowing owl (*Athene cuincularia*), ferruginous hawk (*Buteo regalis*), mountain plover (*Charadrius montanus*), northern harrier (*Circus cyaneus*), white-tailed kite (*Elanus leucurus*), merlin (*Falco columbarius*), San Diego desert woodrat (*Neotoma lepida intermedia*), and coast horned lizard (*Phrynosoma blainvillii*); and a moderate potential to provide suitable habitat for Cooper's hawk (*Accipiter cooperii*), Costa's hummingbird (*Calypte costae*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*).

No drainage or wetland features were observed on the project site that would be considered jurisdictional by the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), or California Department of Fish and Wildlife (CDFW); therefore, this project will not require regulatory permits from the aforementioned regulatory agencies.

Additionally, pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code, construction activities and/or the removal of any trees, shrubs, or any other potential nesting habitat should be conducted outside the avian nesting season. The nesting season generally extends from February 1 through August 31, but can vary slightly from year to year based upon seasonal weather conditions. If construction or vegetation clearing activities occur during the avian nesting season a pre-construction nesting bird clearance survey will be required. Based on the results of the habitat assessment, no burrowing owl or evidence of recent or historic use by burrowing owl was observed on the project site. Focused burrowing owl surveys are not recommended for this site. However, out of an abundance of caution, and to ensure burrowing owl remain absent from the project site, it is recommended that a burrowing owl clearance survey be conducted prior to any ground disturbing activities in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation. Two pre-construction clearance surveys shall be conducted 14-30 days and 24 hours prior to ground disturbing activities to document the continued absence of burrowing owl from the project site. If burrowing owls and/or birds displaying nesting behaviors are observed within the project site during future construction, further review may be needed to ensure compliance with the MBTA and Fish and Game Code.

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APPENDIX

Appendix A Site Photographs
Appendix B Potentially Occurring Sensitive Biological Resources
Appendix C Regulatory Background

LIST OF ACRONYMS

APN	Assessor Parcel Number
CDFW	California Department of Fish and Wildlife
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
Corps	United States Army Corps of Engineers
CWA	Clean Water Act
EMWD	Eastern Municipal Water District
MBTA	Migratory Bird Treaty Act
MG	Million Gallons
MSHCP	Western Riverside County Multiple Species Habitat Conservation Plan
NRCS	Natural Resources Conservation Service
RCIP	Riverside County Integrated Project
Regional Board	Regional Water Quality Control Board
SKR	Stephen's Kangaroo Rat
SKR-HCP	Stephen's Kangaroo Rat – Habitat Conservation Plan
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

Section 1 Introduction

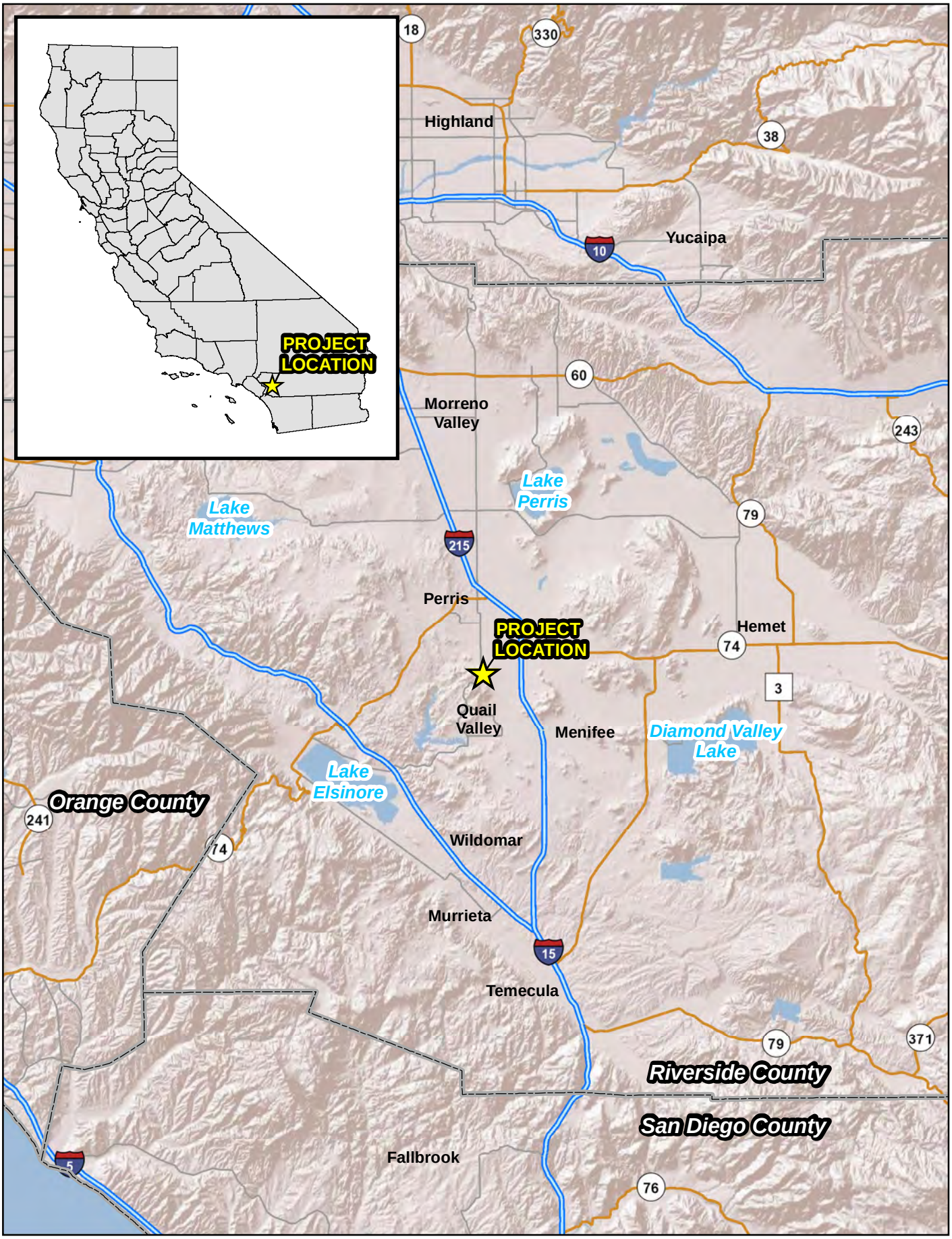
This report contains the findings of a habitat assessment conducted for the proposed Goetz Road Potable Water Storage Tank and Transmission Pipeline Project (project site or site) located in the Cities of Menifee and Perris, Riverside County, California. Biologist Travis J. McGill inventoried and evaluated the condition of the habitat on August 4, 2015. The habitat assessment was conducted to characterize existing site conditions and to assess the probability of occurrence for sensitive plant and wildlife species that could pose a constraint to development of the proposed project. This report provides an in-depth assessment of the suitability of the habitat on-site to support federally and State endangered species, as well as several other sensitive plant and wildlife species identified by the California Natural Diversity Data Base (CNDDB) and other electronic databases as potentially occurring in the vicinity of the project site.

The habitat assessment was conducted for the EMWD on behalf of K.S. Dunbar & Associates, Inc. EMWD is not a permitee under the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP). Although the requirements set forth in the plan do not need apply to their projects, the MSHCP provides guidance for analyzing potential impacts to biological resources.

The proposed location of the water storage tank is located within the Fee Area, established by the County in 1996, for protecting the Stephens' Kangaroo Rat (*Dipodomys stephensi*) (SKR), a federally and State listed species that is protected by the SKR Habitat Conservation Plan (SKR HCP) (County Ordinance No. 663.10). However, Section 10(d) of the Ordinance specifically exempts development of any parcel used by local, state or federal entities for governmental purposes (i.e., public works, schools) from payment of mitigation fees. As such, this project is a public works project and EMWD is exempt from fee payment (Section 10(d) of Riverside County Ordinance 663.10).

1.1 PROJECT LOCATION

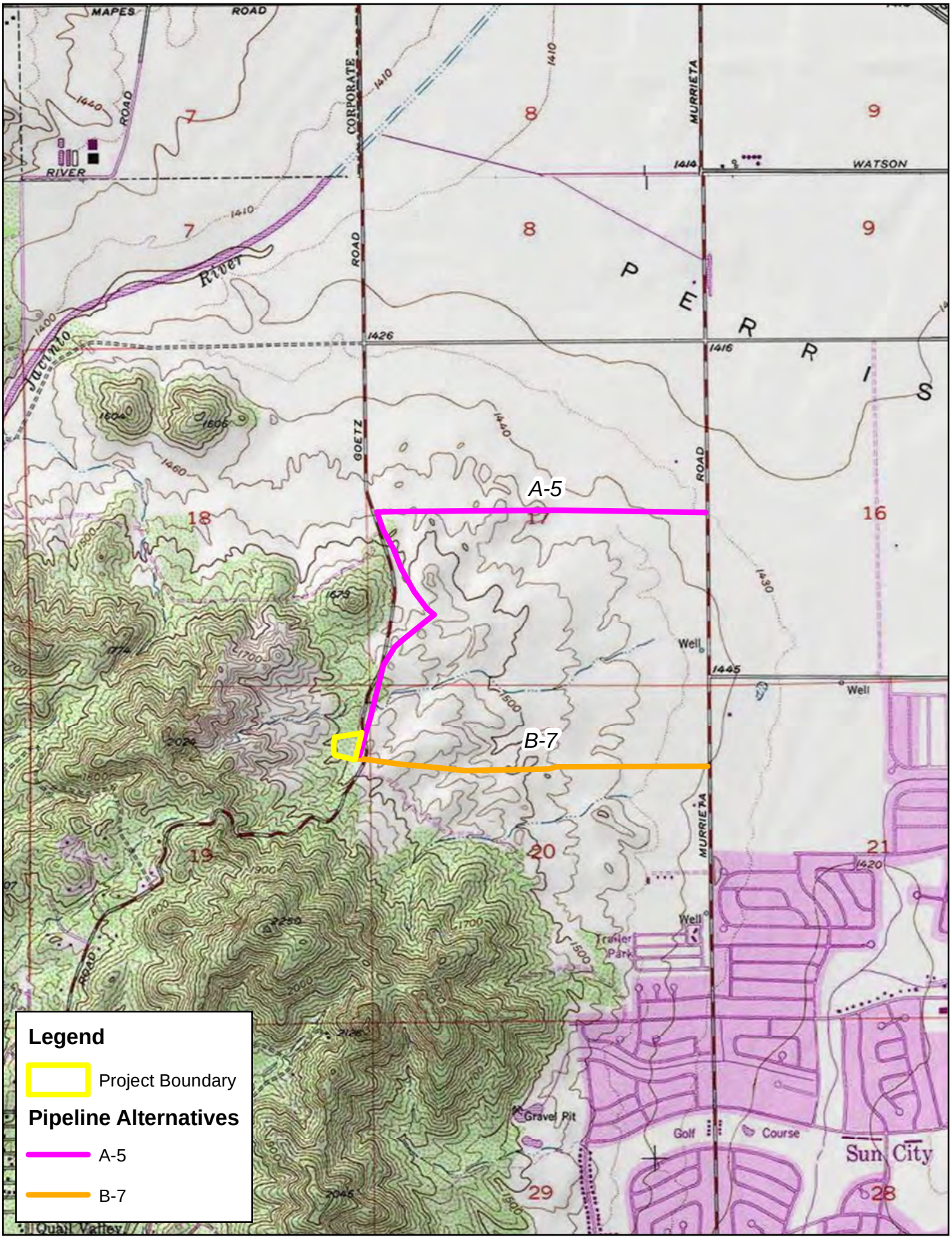
The project site is generally located west of Interstate 215, east of Interstate 15, south of State Route 74, and north of Newport Road in the Cities of Menifee and Perris, Riverside County, California (Exhibit 1, *Regional Vicinity*). The project site is depicted on the Romoland United States Geological Survey (USGS) 7.5-minute quadrangle in an Sections 17, 19 and 20 of Township 5 south, Range 3 west (Exhibit 2, *Site Vicinity*). Specifically, the proposed Goetz Road potable water storage tank is located on the northwest corner of the intersection of Goetz Road and Sotelo Road within Assessor Parcel Number (APN) 335-430-008 (Exhibit 3, *Project Site*). Out of thirteen (13) identified alignment alternatives, two alignments (A-5 and B-7) were determined to be the top ranked preferred alternatives. From the proposed Goetz Road potable water storage tank, Alignment A-5 will extend through existing public right-of-



0 2.5 5 10 15 20 Miles

Regional Vicinity

Exhibit 1



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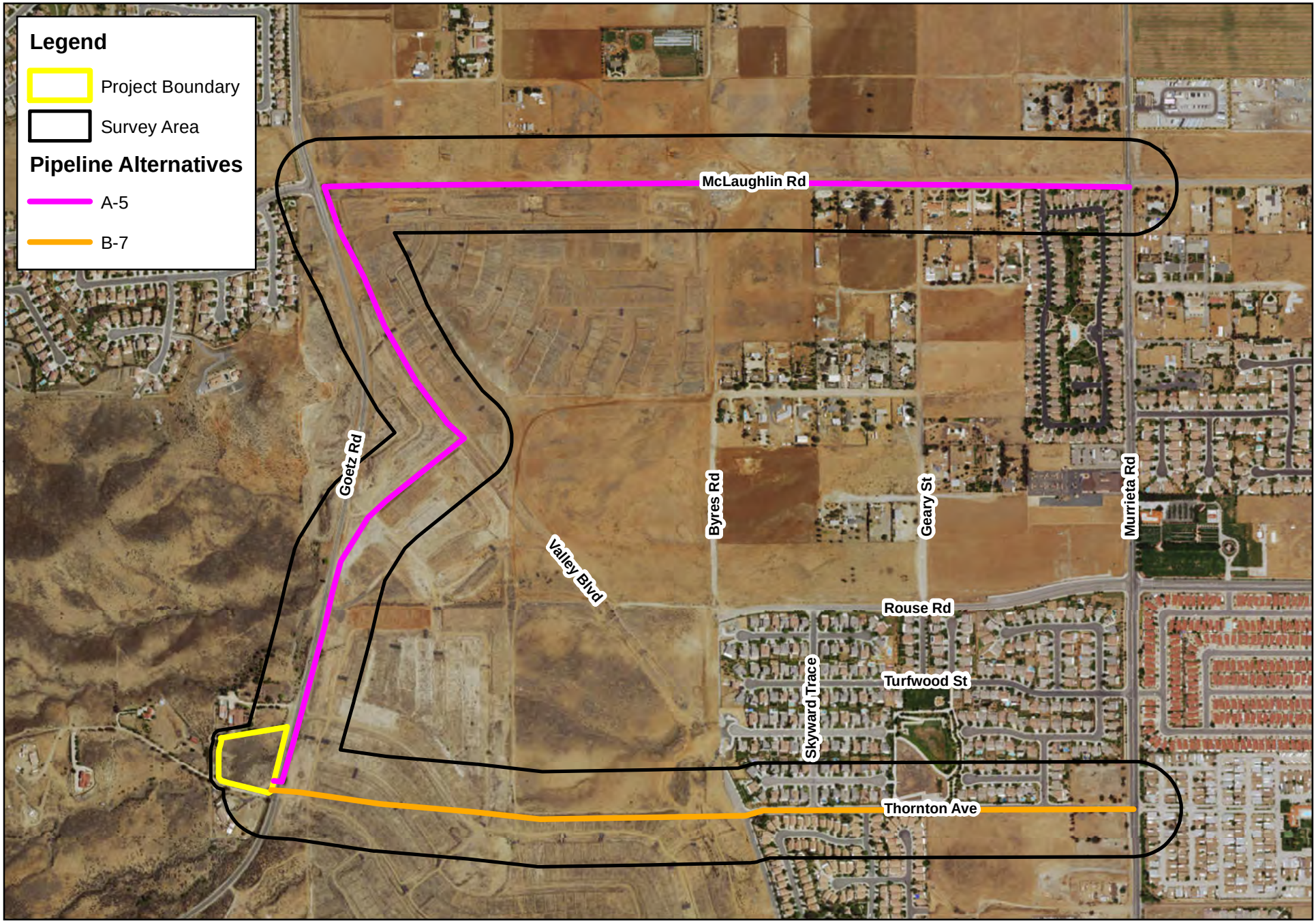
Site Vicinity

Exhibit 2



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Project Site

Exhibit 3

way north on existing Goetz Road to McLaughlin Road where it will then extend east to Murrieta Road. From the proposed Goetz Road potable water storage tank, Alignment B-7 will extend east across the future Cimarron Ridge development on Thornton Road to Murrieta Road. Since the majority of the project site consists of two linear pipeline alignments, the alignment plus a 300 foot buffer around the alignments was surveyed (survey area). The survey area also included the Goetz Road potable water storage tank site and a 50 foot buffer.

1.2 PROJECT DESCRIPTION

As identified in EMWD's Water Facilities Master Plan, the 1627 pressure zone has a number of deficiencies, including low pressure, inadequate intra-zone transmission, deficient storage, and insufficient pumping capacities. EMWD acquired a 2.85-acre parcel on the northwest corner of Goetz Road and Sotelo Road for a proposed 13.4 MG potable water storage tank to address the initial phase of these deficiencies. A new transmission pipeline is proposed to connect the new tank to the existing 1627 transmission pipeline within Murrieta Road. At this time, EMWD is considering two alternative alignments for the transmission pipeline; Alignment A-5, and Alignment B-7.

As stated above, EMWD intends to construct, operate and maintain a 13.4 MG potable water storage tank and new transmission pipeline to correct some of the deficiencies in the 1627 pressure zone..

Section 2 Methodology

A literature review and records search was conducted to determine which sensitive biological resources have the potential to occur on or within the general vicinity of the project site. In addition, a general habitat assessment/field survey was conducted to verify field conditions and to assess the potential for the project site to support sensitive biological resources.

2.1 LITERATURE REVIEW

Prior to conducting the field visit, a literature review and records search was conducted for sensitive biological resources potentially occurring on or within the general vicinity of the project site. Previously recorded occurrences of special status plant and wildlife species and their proximity to the project site were determined through a query of CDFWs CNDDB Rarefind 5, the California Native Plant Society's (CNPS) *Electronic Inventory of Rare, Endangered, and Threatened Plants of California*, Calflora Database, compendia of special-status species published by CDFW, and United States Fish and Wildlife Service (USFWS) species listings.

Literature detailing biological resources previously observed in the vicinity of the project site and historical land uses were reviewed to understand the extent of disturbances to the habitats on-site. Standard field guides and texts on sensitive and non-sensitive biological resources were reviewed for habitat requirements, as well as the following resources:

- Calflora Database;
- CDFW compendia of special-status species;
- CDFW 2012 Staff Report on Burrowing Owl Mitigation;
- Stephens Kangaroo Rat Habitat Conservation Plan;
- Western Riverside County MSHCP and Riverside County Integrated Project (RCIP) Conservation Summary Report;
- United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS), Soil Survey; and
- USFWS Critical Habitat designations for Threatened and Endangered Species;

The RCIP Conservation Summary Report was queried as an informational tool to determine if the project site and general vicinity have the potential to provide suitable habitat for any potentially occurring sensitive biological resources identified by the MSHCP. The literature review provided a baseline from which to inventory the biological resources potentially occurring on the project site. Additional recorded occurrences of these species found on or near the project site were derived from database queries. The CNDDB ArcGIS database was

used, in conjunction with ArcGIS software to locate the nearest occurrence and determine the distance from the project site.

2.2 HABITAT ASSESSMENT AND FIELD INVESTIGATION

Biologist Travis J. McGill inventoried and evaluated the extent and conditions of the plant communities found within the boundaries of the survey area on August 4, 2015. Plant communities identified on aerial photographs during the literature review were ground-truthed by walking meandering transects through the plant communities and along boundaries between plant communities. The plant communities were evaluated for their potential to support sensitive plant and wildlife species as well as the identification of riparian/riverine habitat, and corridors and linkages that may support the movement of wildlife through the area.

All plant and wildlife species observed during the habitat assessment, as well as dominant plant species within each plant community, were recorded. Wildlife detections were made through observation of scat, trails, tracks, burrows, nests, and/or visual and aural observation. In addition, site characteristics such as soil condition, topography, presence of indicator species, condition of the plant communities, hydrology, and evidence of human use of the site were noted. The plant communities were classified in accordance with CDFW (2003) and Holland (1986), delineated on an aerial photograph, and then digitized into GIS ArcMap. The ArcMap application was used to compute the area of each plant community in acres.

Areas providing suitable habitat for burrowing owl were closely surveyed for suitable burrows during the habitat assessment, consisting of natural and non-natural substrates in areas with low, open vegetation. Methods to detect the presence of burrowing owl included direct observation, aural detection, and signs of presence including pellets, white wash, feathers, or prey remains. The location of remnant and occupied burrows/nests were documented, if found.

Section 3 Existing Conditions

3.1 LOCAL CLIMATE

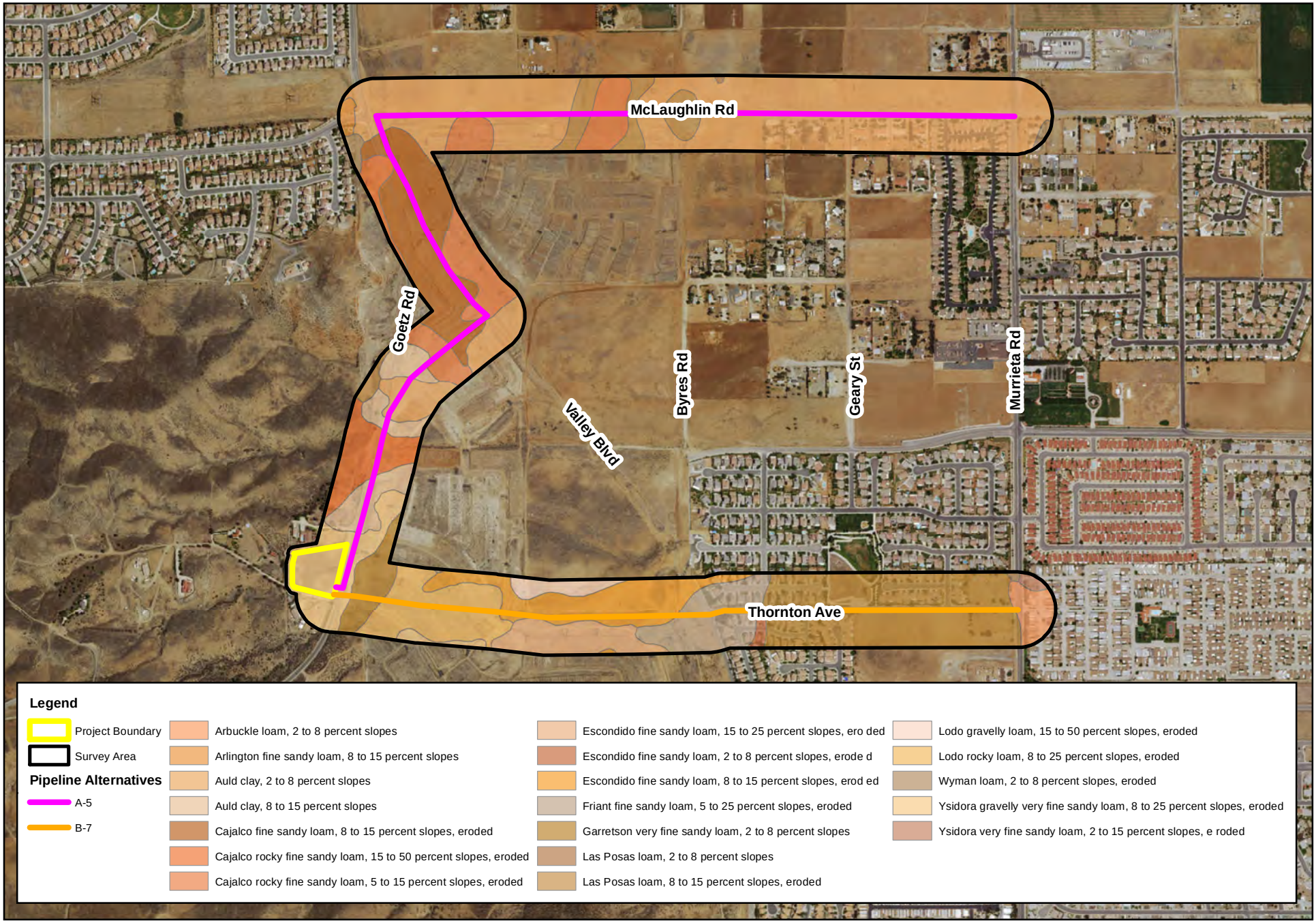
Riverside County features a somewhat cooler version of a Mediterranean climate, or semi-arid climate, with warm, sunny, dry summers and cool, rainy, mild winters. Relative to other areas in southern California, winters are colder with frost and with chilly to cold morning temperatures common. Climatological data obtained from nearby weather stations indicates the annual precipitation averages 12 inches per year. Almost all of the rain occurs in the months between October and April, with hardly any occurring between the months of May and September. The wettest month is generally February, with a monthly average total precipitation of 2.54 inches. The average maximum and minimum temperatures for the region are 80.6 and 47.2 degrees Fahrenheit (F) respectively with July and August (monthly average 98.1° F) being the hottest months and January (monthly average 36.4° F) being the coldest. Temperatures during the site visit were in the low- to mid-90's (degrees Fahrenheit) with calm wind conditions and no clouds present overhead.

3.2 TOPOGRAPHY AND SOILS

The project site is relatively flat with no areas of significant topographic relief and generally slopes from northeast to southwest. Elevation ranges from approximately 1,435 to 1,605 feet above mean sea level. Based on the USDA NRCS Soil Survey, the project site is underlain by the following soil units: Arbuckle loam, Arlington find sandy loam, Auld clay, Cajalco fine sandy loam, Cajalco rocky fine sandy loam, Escondido fine sandy loam, Friant fine sandy loam, Garretson very fine sandy loam, Las Posas loam, Lodo gravelly loam, Wyman loam, Ysidora gavelly very fine sane loam, and Ysidora very fine sandy loam (Exhibit 4, *Soils*).

The MSHCP lists two general classes of soils known to be associated with listed and sensitive plant species; clay soils and Traver-Domino Willow association soils. The specific clay soils known to be associated with listed and sensitive species within the MSHCP plan area include Bosanko, Auld, Altamont, and Porterville series soils, whereas, Traver-Domino Willows association includes saline-alkali soils largely located along floodplain areas of the San Jacinto River and Salt Creek. Without the appropriate soils to create the impermeable restrictive layer, none of the sensitive plant or wildlife species associated with vernal pools can occur on the project site.

Although a portion of the project site has been mapped as containing clay soils, which are called out in the MSHCP as having the potential to support vernal pools, no vernal pools are anticipated to occur on-site. Due to topography of the site, existing disturbances from development and weed abatement activities surface soils have been mechanically disturbed and native vegetation communities have been completely eliminated within the boundaries



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Soils

Exhibit 4

of the project site. As a result of these activities, the soils needed to create the impermeable restrictive layer to support a vernal pool are no longer present and no vernal pools are expected to occur on-site.

3.3 SURROUNDING LAND USES

Land uses in the vicinity of the project site include a mix of residential developments and vacant, undeveloped properties. The areas to the northwest, north, east, and south of the project site are composed of a mix of developed and undeveloped properties. These developed properties primarily consist of residential developments while the undeveloped properties primarily support a non-native grassland plant community. The areas west of the project site are relatively undeveloped and extend into natural rolling hills that supports a mix of Riversidean sage scrub and non-native grassland plant communities.

Section 4 Discussion

4.1 SITE CONDITIONS

On-site and surrounding land uses have heavily disturbed, if not completely eliminated, naturally occurring habitats from the majority of the proposed project footprint and surrounding area. The project site has been subject to various types of human disturbance including development, grading activities for the Cimarron Ridge development, weed abatement activities, illegal dumping, and off-road vehicle use.

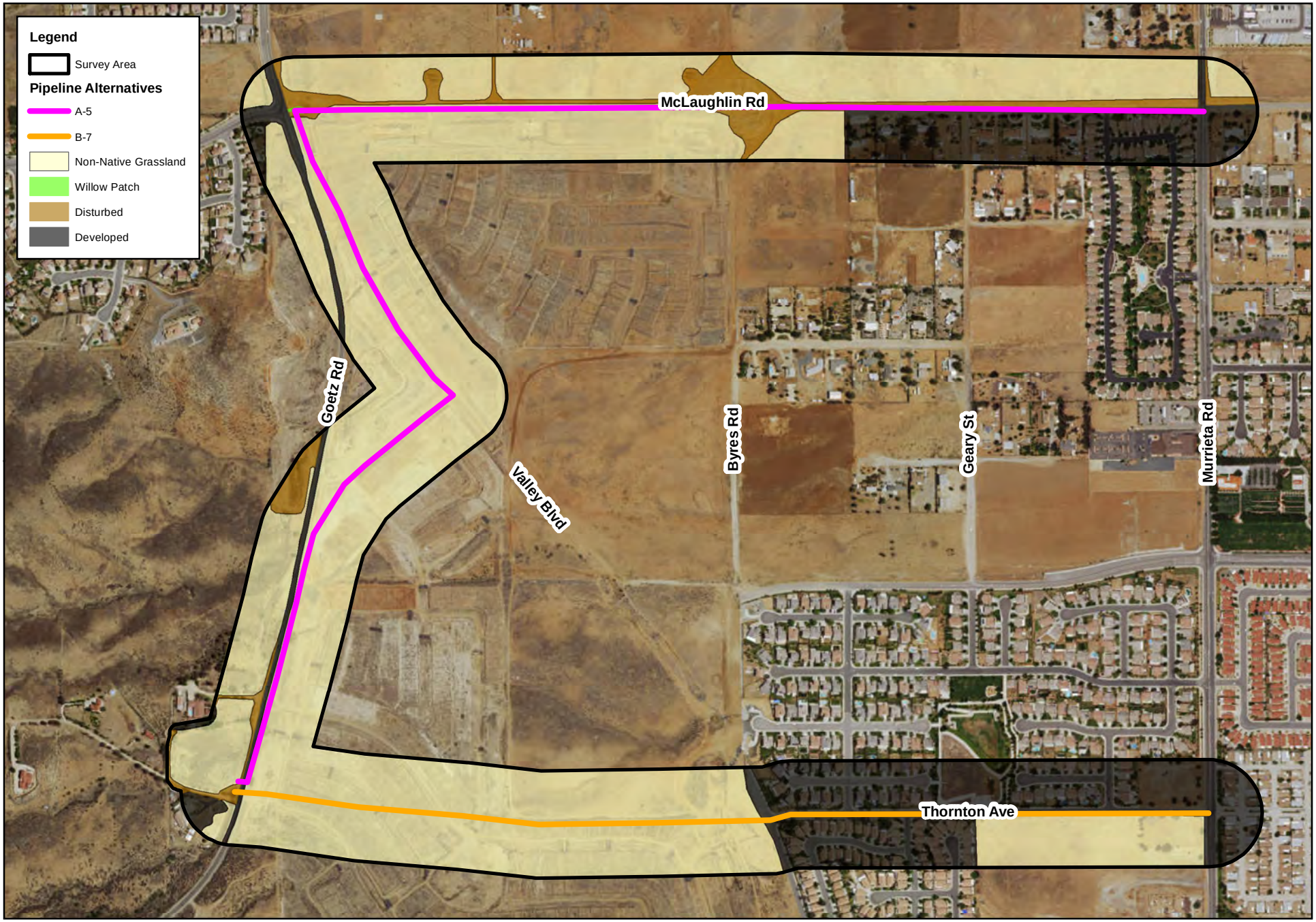
The two proposed pipeline alternatives will primarily be installed within existing paved roads and dirt access roads, within existing public right-of-way. The proposed Goetz Road potable water storage tank is located is located on a parcel of land that has been heavily disturbed from weed abatement activities and surrounding development.

4.2 PLANT COMMUNITIES

No undisturbed, natural plant communities were observed within the survey area during the habitat assessment. One (1) plant community were observed within the survey area, non-native grassland (Exhibit 6, *Vegetation*). There is also an area on the southeast corner of the intersection of Goetz Road and Goldenroad Avenue that supports a patch of willow trees. Additionally, there are two (2) areas that were classified as disturbed, and developed areas. These are areas are not vegetation classifications, rather a land cover type.

4.2.1 Non-Native Grassland

The majority of the project site supports a heavily disturbed non-native grassland plant community that is vegetated with a variety of non-native grasses and early successional plant species. This plant community has been heavily disturbed from surrounding development, grading activities for the Cimarron Ridge development, weed abatement activities, illegal dumping, and off-road vehicle use. Plant species observed within the project site include western ragweed (*Ambrosia psilostachya*), fiddleneck (*Amsinckia menziesii*.), wild oats (*Avena fatua*), red brome (*Bromus madritensis ssp. rubens*), tocalote (*Centaurea melitensis*), jimson weed (*Datura wrigtii*), red stemmed filaree (*Erodium cicutarium*), common sunflower (*Helianthus annuus*), short-podded mustard (*Hirschfeldia incana*), horehound (*Marrubium vulgare*), tree tobacco (*Nicotiana glauca*), and tumbleweed (*Salsola tragus*). Isolated patches of California sagebrush (*Artemisia californica*), brittle bush (*Encelia farinose*), and California buckwheat (*Eriogonum fasciculatum*) also occur within the survey area.



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Vegetation

Exhibit 5

4.2.2 Willow Patch

A small patch of black willow trees (*Salix gooddingii*) has established on the southeast corner of the intersection of Goetz Road and Goldenroad Avenue likely as a result of water run-off collecting in a low spot from the road. This patch consist of 2-3 willow trees and does not constitute a plant community.

4.2.3 Disturbed

Disturbed habitat refers to areas that generally lack vegetation but do not contain an impermeable surface (i.e., dirt, gravel). Disturbed areas within the survey area consist of heavily compacted soils and are devoid of vegetation. These areas include unpaved dirt access roads and area that were previously graded for the Cimarron Ridge development.

4.2.4 Developed

Developed areas generally encompass all buildings, as well as all paved surfaces. These are present throughout the entire survey area, primarily consisting of paved roads and residential developments, and generally do not contain any native vegetation except for landscaped, ornamental vegetation.

4.3 WILDLIFE

Plant communities provide food sources, along with foraging, nesting and denning sites, cover, and protection from adverse weather or predation. This section provides a discussion of the wildlife species observed, expected, or not expected to occur on-site. The discussion is to be used as a general reference and is limited by the season, time of day, and weather condition in which the survey was conducted. Wildlife observations were based on calls, songs, scat, tracks, burrows and actual sightings of animals.

4.3.1 Fish

No fish or hydrogeomorphic features (e.g., creeks, ponds, lakes, reservoirs) that would provide suitable habitat for fish were observed on or within the vicinity of the project site. There are no drainage features within the survey area that support standing water that would be sufficient to support a fish population. Therefore, no fish are expected to occur and are presumed absent.

4.3.2 Amphibians

Amphibians require moisture for at least a portion of their life cycle, and many require standing or flowing water for reproduction. Terrestrial species may or may not require standing water for reproduction; they are able to survive in dry areas by aestivating (i.e., remaining beneath the soil in burrows or under logs and leaf litter, and emerging only when temperatures are low

and humidity is high). Many of these species' habitats are associated with water and they emerge to breed once the rainy season begins. Soil moisture conditions can remain high throughout the year in some habitat types depending on factors such as amount of vegetation cover, elevation, slope aspect, and presence of springs or seeps.

No amphibians or hydrogeomorphic features that would provide suitable habitat for amphibian species were observed on or within the vicinity of the project site. There are no drainage features within the survey area that support standing water that would be sufficient to support an amphibian population. Therefore, no amphibians are expected to occur and are presumed absent.

4.3.3 Reptiles

One reptilian species was detected during the habitat assessment, western side-blotched lizard (*Uta stansburiana elegans*). The project site is heavily disturbed and has a limited potential to provide suitable habitat that would support a population of reptilian species adapated to human disturbances. Due to the open habitat, the site has the potential to support alligator lizard (*Elgaria multicarinata*), gopher snake (*Pituophis catenifer*), and western fence lizard (*Sceloporus occidentalis*).

4.3.4 Avian

The project site provides suitable foraging habitat for a limited variety of avian species. A total of thirteen (13) avian species were identified during the habitat assessment. The species identified included red-tailed hawk (*Buteo jamaicensis*), killdeer (*Charadrius vociferus*), American crow (*Corvus brachyrhynchos*), American kestrel (*Falco sparverius*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottos*), house sparrow (*Passer domesticus*), Say's phoebe (*Sayornis saya*), lesser goldfinch (*Spinus psaltria*), Cassin's kingbird (*Tyrannus vociferans*), greater roadrunner (*Geococcyx californianus*), horned lark (*Eremophila alpestris*), and Eurasian collard-dove (*Streptopelia decaocto*).

Despite a systematic search of all suitable burrows and open habitat throughout the project site, no burrowing owl or recent or historic sign (pellets, feathers, castings, or white wash) was observed during the habitat assessment. Therefore, burrowing owl is presumed absent.

4.3.5 Mammals

Only one mammal was detected during the habitat assessment: cottontail (*Sylvilagus audubonii*). The project site provides limited and localized habitat for a variety of mammalian species adapted to human presence and disturbance. However, most mammal species are nocturnal and are difficult to observe during a diurnal field visit. Mammals and/or sign detected during the field assessment included California ground squirrel (*Otospermophilus beecheyi*).

Other mammal species that have the potential to occur within the BSA include Botta's pocket gopher (*Thomomys bottae*), deer mouse (*Peromyscus* sp.), and coyote (*Canis latrans*).

4.4 NESTING BIRDS

No nesting birds or breeding behaviors were observed during the field investigation. On-site vegetation provides limited nesting opportunities for avian species. However, the project site has the potential to provide suitable nesting opportunities for ground-nesting avian species (e.g. killdeer (*Charadrius vociferous*)). Additionally, ornamental vegetation associated with surrounding residential developments (within 500 feet of the project site), have the potential to provide suitable nesting opportunities for avian species.

4.5 MIGRATORY CORRIDORS AND LINKAGES

Habitat linkages provide links between larger habitat areas that are separated by development. Wildlife corridors are similar to linkages, but provide specific opportunities for animals to disperse or migrate between areas. A corridor can be defined as a linear landscape feature of sufficient width to allow animal movement between two comparatively undisturbed habitat fragments. Adequate cover is essential for a corridor to function as a wildlife movement area. It is possible for a habitat corridor to be adequate for one species yet, inadequate for others. Wildlife corridors are significant features for dispersal, seasonal migration, breeding, and foraging. Additionally, open space can provide a buffer against both human disturbance and natural fluctuations in resources.

The project site does not support any identified migratory corridors or linkages, and the MSHCP does not identify any migratory corridors or linkages as occurring on or immediately surrounding the project site. The area west of the project site extends into natural rolling hills that supports a mix of Riversidean sage scrub and non-native grassland plant communities that has the potential to support a north to south wildlife movement west of the project site. However, the areas northwest, north, east, and south of the project site are composed of a mix of developed and undeveloped properties which have reduced if not completely eliminated potential wildlife movement in a west to east direction across the project site. As a result, development of the proposed project is not expected to have any permanent impacts to wildlife movement.

4.6 JURISDICTIONAL AREAS

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates discharge of dredge and/or fill materials into "waters of the United States" pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFW regulates alterations to streambed and associated plant communities pursuant to Section 1600-1616 of the Fish and Game Code, and the Regional Board regulates discharges

into surface waters pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

No jurisdictional drainage features or isolated wetland features that would qualify as “waters of the United States” or “waters of the state” were observed within the proposed project site. This project, therefore, will not require regulatory permits from the aforementioned regulatory agencies.

4.7 SENSITIVE BIOLOGICAL RESOURCES

The CNDDB and CNPS were queried for reported locations of listed and sensitive plant and wildlife species as well as sensitive natural plant communities on the Romoland and Lake Elsinore USGS 7.5-minute quadrangles. A search of published records of these species was conducted within these quadrangles using the CNDDB Rarefind5 online software. The CNPS Inventory of Rare and Endangered Vascular Plants of California supplied information regarding the distribution and habitats of vascular plants in the vicinity of the project site. The habitat assessment was used to assess the ability of the plant communities found on-site to provide suitable habitat for relevant special-status plant and wildlife species.

The literature search identified twenty-seven (27) sensitive plant species, fifty (50) sensitive wildlife species, and three (3) sensitive plant communities as having the potential to occur within the Romoland and Lake Elsinore quadrangles. Sensitive plant and wildlife species were evaluated for their potential to occur within the project boundaries based on habitat requirements, availability and quality of suitable habitat, and known distributions. Species determined to have the potential to occur within the general vicinity are presented in Appendix B, Potentially Occurring Sensitive Biological Resources. Appendix B summarizes conclusions from analysis and field surveys regarding the potential occurrence of listed and sensitive plant and wildlife species within the project site.

4.7.1 Sensitive Plants

Twenty-seven (27) sensitive plant species have been recorded in the CNDDB and CNPS in the Romoland and Lake Elsinore quadrangles (refer to Attachment B). No sensitive plant species were observed on-site during the habitat assessment. Based on habitat requirements for specific species and the availability and quality of on-site habitats, it was determined that the project site does not provide suitable habitat that would support any of the CNDDB or CNPS listed plant species known to occur in the general vicinity of the project site. The majority of the project site is developed or was graded for the Cimarron Ridge development which has removed natural plant communities that once occurred in the general area.

4.7.2 Sensitive Wildlife

Fifty (50) sensitive wildlife species are known to occur in Romoland and Lake Elsinore quadrangles. Horned lark, a CDFW Watch List species, was the only sensitive wildlife species observed within the survey area during the field investigation. Based on habitat requirements for specific species as well as the availability and quality of habitats needed by the sensitive wildlife species known to occur in the area, it was determined that the project site has a low potential to provide suitable habitat for golden eagle, burrowing owl, ferruginous hawk, mountain plover, northern harrier, white-tailed kite, merlin, San Diego desert woodrat, and coast horned lizard. It was also determined that the project site has a moderate potential to provide suitable habitat for Cooper's hawk, Costa's hummingbird, and San Diego black-tailed jackrabbit.

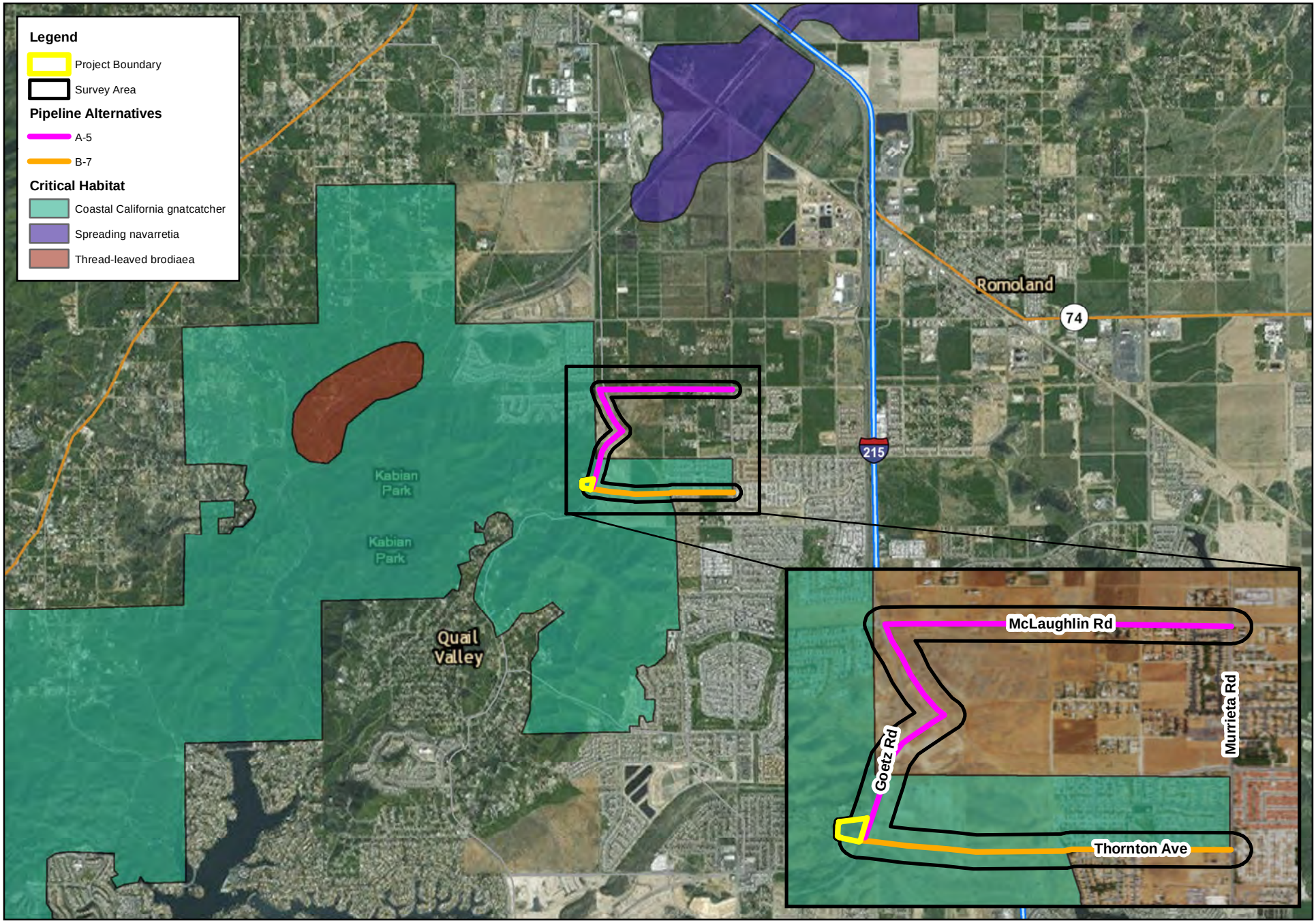
Even though it was determined that the project site has a low to moderate potential to provide suitable habitat for the aforementioned species, on-site and surrounding land uses have heavily disturbed, if not completely eliminated, naturally occurring habitats from the majority of the proposed project footprint and surrounding area. Additionally, the project site has been subject to various types of human disturbance including development, grading activities for the Cimarron Ridge development, weed abatement activities, illegal dumping, and off-road vehicle use. As a result, the project site does not provide any long-term conservation value for these species, and implementation of the proposed project is not expected to have any direct impacts to these species.

4.7.3 Sensitive Plant Communities

According to the CNDDB, Three (3) sensitive plant communities have been recorded within the Romoland and Lake Elsinore quadrangles: southern coast live oak riparian forest, southern cottonwood willow riparian forest, and southern sycamore alder riparian forest. None of these sensitive plants communities were observed on-site during the habitat assessment.

4.7.4 Critical Habitat

Under the federal Endangered Species Act, "Critical Habitat" is designated at the time of listing of a species or within one year of listing. "Critical Habitat" refers to habitat or a specific geographic area that contains the elements and features that are essential for the survival and recovery of the species. In the event that a project may result in take or in adverse effects to a species' designated Critical Habitat, the project proponent may be required to engage in suitable mitigation. However, consultation for impacts to Critical Habitat is only required when a project has a federal nexus (i.e. occurs on federal land, is issued federal permits [e.g. Corps Section 404 Clean Water Act permit], or receives any other federal oversight or funding). If a project does not have a federal nexus, Critical Habitat consultations are not required.



0 2,500 5,000 10,000 Feet

Critical Habitat

Exhibit 6

Based on the USWS Critical Habitat Portal, alignment B-7, the proposed Goetz Road potable water storage tank, and the southern portion of alignment A-5 is located within Critical Habitat Unit 10, Western Riverside County MSHCP (65 FR 63680 63743) for coastal California gnatcatcher (*Polioptila californica californica*) (Exhibit 7, *Critical Habitat*). However, in 2000 the USFWS designated Critical Habitat for California gnatcatcher, and the project site was included within the designated area. Subsequently, in 2007 the USFWS reduced the boundaries of their previously designated Critical Habitat which removed the project site from designation. The final 2007 ruling determined that the MSHCP sufficiently the total amount of habitat that will be protected under the MSCHP will conserve and manage gnatcatcher habitat and associated Primary Constituent Elements in sufficient quantity and distribution to provide for the long term conservation and recovery of this species. In accordance with the Revised Designation of Critical Habitat for California gnatcatcher, Final Rule (2007) the project site is not located within federally designated Critical Habitat for California gnatcatcher.

Section 5 Conclusion and Recommendations

On-site and surrounding land uses have heavily disturbed, if not completely eliminated, naturally occurring habitats from the majority of the proposed project footprint and surrounding area. The project site has been subject to various types of human disturbance including development, grading activities for the Cimarron Ridge development, weed abatement activities, illegal dumping, and off-road vehicle use. The two proposed pipeline alternatives will primarily be installed within existing paved roads and dirt access roads, within existing public right-of-way. The proposed Goetz Road potable water storage tank is located is located on a parcel of land that has been heavily disturbed from weed abatement activities and surrounding development.

No undisturbed, natural plant communities were observed within the survey area during the habitat assessment. One (1) plant community were observed within the survey area, non-native grassland. There is also an area on the southeast corner of the intersection of Goetz Road and Goldenroad Avenue that supports a patch of willow trees. Additionally, there are two (2) areas that were classified as disturbed, and developed areas. These are areas are not vegetation classifications, rather a land cover type.

No special-status plant or wildlife species, except for horned lark, were observed within the survey area during the site visit. The majority of the project site is developed or was graded for the Cimarron Ridge development which has removed natural plant communities that once occurred in the general area. As a result it no sensitive plant species are expected to occur on-site and are presumed absent. Based on habitat requirements for specific species as well as the availability and quality of habitats needed by the sensitive wildlife species known to occur in the area, it was determined that the project site has a low potential to provide suitable habitat for golden eagle, burrowing owl, ferruginous hawk, mountain plover, northern harrier, white-tailed kite, merlin, San Diego desert woodrat, and coast horned lizard; and a moderate potential to provide suitable habitat for Cooper's hawk, Costa's hummingbird, and San Diego black-tailed jackrabbit.

No drainage or wetland features were observed on the project site that would be considered jurisdictional by the Corps, Regional Board, or CDFW; therefore, this project will not require regulatory permits from the aforementioned regulatory agencies.

Additionally, pursuant to the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code, construction activities and/or the removal of any trees, shrubs, or any other potential nesting habitat should be conducted outside the avian nesting season. The nesting season generally extends from February 1 through August 31, but can vary slightly from year to year based upon seasonal weather conditions. If construction or vegetation clearing activities occur

during the avian nesting season a pre-construction nesting bird clearance survey will be required.

Burrowing Owl

The plant communities on the project site provide the open vegetation needed by burrowing owl to allow for line-of-sight observation. Despite systematic searches of the project site, no burrowing owl, burrowing owl sign, and suitable burrows were observed. The lack of suitable nesting opportunities and ongoing human activities has precluded burrowing owl from inhabiting the site and burrowing owl are presumed absent.

Based on the results of the habitat assessment, no burrowing owl or evidence of recent or historic use by burrowing owl was observed on the project site. Focused burrowing owl surveys are not recommended for this site. However, out of an abundance of caution, and to ensure burrowing owl remain absent from the project site, it is recommended that a burrowing owl clearance survey be conducted prior to any ground disturbing activities in accordance with the CDFW 2012 Staff Report on Burrowing Owl Mitigation. Two pre-construction clearance surveys shall be conducted 14-30 days and 24 hours prior to ground disturbing activities to document the continued absence of burrowing owl from the project site. If burrowing owls and/or birds displaying nesting behaviors are observed within the project site during future construction, further review may be needed to ensure compliance with the MBTA and Fish and Game Code.

Migratory Bird Treaty Act and Fish and Game Code

Pursuant to the MBTA and Fish and Game Code, removal of any trees, shrubs, or any other potential nesting habitat should be conducted outside the avian nesting season. The nesting season generally extends from February 1 through August 31, but can vary slightly from year to year based upon seasonal weather conditions. If ground disturbance and vegetation removal cannot occur outside of the nesting season, a pre-construction clearance survey for nesting birds should be conducted within three (3) days of the start of any ground disturbing activities to ensure that no nesting birds will be disturbed during construction. The biologist conducting the clearance survey should document a negative survey with a brief letter report indicating that no impacts to active bird nests will occur. If an active avian nest is discovered during the preconstruction clearance survey, construction activities should stay outside of a 300-foot buffer around the active nest. For raptor species, this buffer is expanded to 500-feet. If active nests are found in proximity to the project site prior to construction, it is recommended that a biological monitor be present to delineate the boundaries of the buffer area and to monitor the active nest to ensure that nesting behavior is not adversely affected by the construction activity. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, normal construction activities can occur.

Pursuant to Fish and Game Code Section 3503, it is unlawful to destroy any bird's nest or any bird's eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks and owls) are protected under Fish and Game Code Section 3503.5 which makes it unlawful to take, possess, or destroy their nest or eggs. Consultation with CDFW will be required prior to the removal of any raptor nest on the project site, if found.

Section 6 References

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U.S. Fish and Wildlife Service. Critical Habitat Portal

Appendix A Site Photographs

Photograph 1- Looking east from the western boundary of the proposed Goetz Road Potable Water Storage Tank site.

Photograph 2- Looking southeast across the proposed Goetz Road Potable Water Storage Tank site

Photograph 3- Looking south along the dirt access road and Goetz Road (paved) at the southern portion of Alignment A-5.

Photograph 4- Looking southeast along Valley Boulevard where Alignment A-5 is proposed to be installed.

Photograph 5- Patch of black willow approximately 60 feet west of the intersection of Goetz Road with McLaughlin Road.

Photograph 6- Looking east at proposed Alignment A-5 along McLaughlin Rod.

Photograph 7- Looking west along Alignment A-5.

Photograph 8- From the intersection of McLaughlin Road and Murrieta Road, looking west along Alignment A-5.

Photograph 9- From Goetz Road, looking east along Alignment B-7 that crosses the Cimarron Ridge development.

Photograph 10- Looking east along Alignment B-7.

Photograph 11- Looking east along Thornton Avenue where Alignment B-7 is proposed.

Photograph 12- Looking east towards Murrieta Road along Thornton Avenue where Alignment B-7 is proposed.

Appendix B Potentially Occurring Sensitive Biological Resources

Potentially Occurring Sensitive Biological Resources

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-Site**	**Potential to Occur On-Site**
Wildlife Species				
Accipiter cooperii Cooper's hawk	Fed: None CA: WL	Generally found in forested areas up to 3,000 feet in elevation, especially near edges and rivers. Prefers hardwood stands and mature forests, but can be found in urban and suburban areas where there are tall trees for nesting. Common in open areas during nesting season.	No	**Moderate**. The undeveloped fields adjacent to the project site provide suitable foraging habitat, but no suitable nesting habitat.
Agelaius tricolor tricolored blackbird	Fed: None CA: CSC	Range is limited to the coastal areas of the Pacific coast of North America, from Northern California to upper Baja California. Can be found in a wide variety of habitat including annual grasslands, wet and dry vernal pools and other seasonal wetlands, agricultural fields, cattle feedlots, and dairies. Occasionally forage in riparian scrub habitats along marsh borders. Basic habitat requirements for breeding include open accessible water, protected nesting substrate (freshwater marsh dominated by cattails, willows, and bulrushes [*Schoenoplectus* sp.]), and either flooded or thorny or spiny vegetation and suitable foraging space providing adequate insect prey.	No	**Presumed absent**. There is no suitable habitat.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	Fed: None CA: WL	Typically found between 3,000 and 6,000 feet in elevation. Breed in sparsely vegetated scrubland on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush, but they can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	No	**Presumed absent**. There is no suitable habitat.
Ammodramus savannarum grasshopper sparrow	Fed: None CA: CSC	Prefers open grasslands with bare ground for foraging. In arid grassland and prairies, grasshopper sparrows tend to be found in areas with shrub cover and more vegetation.	No	**Presumed absent**. There is no suitable habitat.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-Site**	**Potential to Occur On-Site**
Anaxyrus californicus arroyo toad	Fed: **END** CA: CSC	Breeding habitat is restricted to shallow, slow-moving stream, and riparian habitats. Breeds in shallow, sandy pools, usually bordered by sand and gravel flood terraces. Occurs in a variety of upland habitats including sycamore-cottonwood woodlands, coastal sage scrub, chaparral, and grassland. Requires areas of sandy or friable soils for burrowing.	No	**Presumed absent**. There is no suitable habitat.
Aquila chrysaetos golden eagle	Fed: None CA: FP, WL	Occupies nearly all terrestrial habitats of the western states except densely forested areas. Favors secluded cliffs with overhanging ledges and large trees for nesting and cover. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. Deeply cut canyons rising to open mountain slopes and crags are ideal habitat.	No	**Low**. The undeveloped fields adjacent to the project site provide suitable foraging habitat, but no suitable nesting habitat.
Artemisiospiza belli belli Bell's sage sparrow	Fed: None CA: WL	Occurs in chaparral dominated by fairly dense stands of chamise. Also found in coastal sage scrub in south of range.	No	**Presumed absent**. There is no suitable habitat.
Aspidoscelis hyperythra orange-throated whiptail	Fed: None CA: CSC	Semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral.	No	**Presumed absent**. There is no suitable habitat.
Aspidoscelis tigris stejnegeri coastal whiptail	Fed: None CA: None	Found in a variety of ecosystems, primarily hot and dry open areas with sparse foliage - chaparral, woodland, and riparian areas.	No	**Presumed absent**. There is no suitable habitat.
Athene cunicularia burrowing owl	Fed: None CA: CSC	Occurs in dry, open areas such as grasslands, prairies, savannas, deserts, farmlands, golf courses and other urban areas	No	**Low**. The undeveloped fields adjacent to the project site provide line of sight opportunities. No burrowing owls or sign was observed.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-Site**	**Potential to Occur On-Site**
Buteo regalis ferruginous hawk	Fed: None CA: WL	Frequents open grasslands, sagebrush flats, desert scrub, low foothills surrounding valleys, and fringes of pinyon-juniper habitats. Nests in foothills or prairies; on low cliffs, buttes, cut banks, shrubs, trees, or in other elevated structures, natural or human-made. Requires large, open tracts of grasslands, sparse shrub, or desert habitats.	No	**Low**. The undeveloped fields adjacent to the project site provide suitable foraging habitat, but no suitable nesting habitat.
Calypte costae Costa's hummingbird	Fed: None CA: None	Desert and semi-desert, arid brushy foothills and chaparral. A desert hummingbird that breeds in the Sonoran and Mojave Deserts. Departs desert heat moving into chaparral, scrub, and woodland habitats.	No	**Moderate**. The project site provides marginal foraging habitat and nesting habitat.
Chaetodipus californicus femoralis Dulzura pocket mouse	Fed: None CA: CSC	Found most often in grass-chaparral edges, but may also be found in coastal scrub or other habitats, primarily in San Diego County.	No	**Presumed absent**. There is no suitable habitat.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	Fed: None CA: CSC	Open habitat on the Pacific slope from southwestern San Bernardino County to northwestern Baja California.	No	**Presumed absent**. There is no suitable habitat.
Charadrius montanus mountain plover	Fed: None CA: CSC	Found in disturbed-prairie or semidesert areas. Often characterized as a breeding bird of high plans and desert tablelands. Prefer disturbed habitats for nesting, including agricultural fields. Typically found in southern California in the winter months.	No	**Low**. There is marginal habitat adjacent to the project site.
Charina trivirgata rosy boa	Fed: None CA: None	Occurs in habitats with a mix of dense, brushy cover and rocky soils. Generally associated with desert and chaparral habitats, including coastal and desert canyons, washes, oak and pine woodlands, pinyon-juniper woodlands, and mountains.	No	**Presumed absent**. There is no suitable habitat.
Chlidonias niger black tern	Fed: None CA: CSC	Preferred summer habitats are inland marshes and sloughs with fairly dense cattail or other marsh vegetation and pockets of open water. It winters on the coasts of South America and it appears in considerable numbers on the South Atlantic and Gulf Coast of North America during peak migration.	No	**Presumed absent**. There is no suitable habitat.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-Site**	**Potential to Occur On-Site**
Chondestes grammacus lark sparrow	Fed: None CA: None	Found in disturbed-prairie or semidesert areas. Often characterized as a breeding bird of high plans and desert tablelands. Prefer disturbed habitats for nesting, including agricultural fields. Typically found in southern California in the winter months.	No	**Presumed absent**. There is no suitable habitat.
Circus cyaneus Northern harrier	Fed: None CA: CSC	Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded areas. Mostly found in flat, or hummocky, open areas of tall, dense grasses moist or dry shrubs, and edges for nesting, cover, and feeding.	No	**Low**. The undeveloped fields adjacent to the project site provide suitable foraging habitat, but no suitable nesting habitat.
Coleonyx variegatus abbotti San Diego banded gecko	Fed: None CA: None	Primarily a desert species and most abundant in sandy flats or desert washes. Prefers rocky areas in coastal sage and chaparral plant communities.	No	**Presumed absent**. There is no suitable habitat.
Crotalus ruber Red-diamond rattlesnake	Fed: None CA: CSC	Occurs from the desert, through dense chaparral in the foothills, to warm inland mesas and valleys, all the way to the cool ocean shore. It is most commonly associated with heavy brush with large rocks or boulders. Dense chaparral in the foothills, cactus or boulder associated coastal sage scrub, oak and pine woodlands, and desert slope scrub. Chamise/red shank associations may offer better structural habitat.	No	**Presumed absent**. There is no suitable habitat.
Dipodomys merriami parvus San Bernardino kangaroo rat	Fed: **END** CA: CSC	Primarily found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and flood plains, and along washes with nearby sage scrub. May occur at lower densities in Riversidean upland sage scrub, chaparral and grassland in uplands and tributaries in proximity to Riversidean alluvial fan sage scrub habitats. Tend to avoid rocky substrates and prefer sandy loam substrates for digging of shallow burrows.	No	**Presumed absent**. There is no suitable habitat.
Dipodomys stephensi Stephen' kangaroo rat	Fed: **END** CA: **THR**	Occur in arid and semi-arid habitats with some grass or brush. Prefer open habitats with less than 50% protective cover. Require soft, well-drained substrate for building burrows and are typically found in areas with sandy soil.	No	**Presumed absent**. There is no suitable habitat.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-Site**	**Potential to Occur On-Site**
Elanus leucurus white-tailed kite	Fed: None CA: FP	Occurs in low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Uses trees with dense canopies for cover.	No	**Low**. The undeveloped fields adjacent to the project site provide suitable foraging habitat, but no suitable nesting habitat.
Empidonax traillii extimus southwestern willow flycatcher	Fed: **END** CA: **END**	Occurs in riparian woodlands in southern California. Typically requires large areas of willow thickets in broad valleys, canyon bottoms, or around ponds and lakes. These areas typically have standing or running water, or are at least moist.	No	**Presumed absent**. There is no suitable habitat.
Emys marmorata western pond turtle	Fed: None CA: CSC	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater. Found at elevations from sea level to over 5,900 feet (1,800 m).	No	**Presumed absent**. There is no suitable habitat.
Eremophila alpestris actia California horned lark	Fed: None CA: WL	Occurs in meadows, grasslands, open fields, prairie, and alkali flats with low, sparse vegetation. This subspecies is typically found in coastal regions.	Yes	**Present**. The undeveloped fields adjacent to the project site provide suitable habitat.
Eumops perotis californicus Western mastiff bat	Fed: None CA: CSC	Primarily a cliff-dwelling species, roost generally under exfoliating rock slabs. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least 3 meters below the entrance for flight. In California, it is most frequently encountered in broad open areas. Its foraging habitat includes dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas.	No	**Presumed absent**. There is no suitable habitat.
Euphydryas editha quino quino checkerspot butterfly	Fed: **END** CA: None	Prefers sunny openings within chaparral and coastal sage scrub throughout Riverside and San Diego counties.	No	**Presumed absent**. There is no suitable habitat.

Scientific Name Common Name	**Status**		**Habitat**	**Observed On-Site**	**Potential to Occur On-Site**
Falco columbarius merlin	Fed: CA:	None WL	Nest in forested openings, edges, and along rivers across northern North America. Found in open forests, grasslands, and especially coastal areas with flocks of small songbirds or shorebirds.	No	**Low**. Minimal foraging habitat, no suitable nesting habitat.
Icteria virens yellow-breasted chat	Fed: CA:	None CSC	Primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. Breeding habitat must be dense to provide shade and concealment.	No	**Presumed absent**. There is no suitable habitat.
Lanius ludovicianus loggerhead shrike	Fed: CA:	None CSC	Often found in broken woodlands, shrublands, and other habitats. Prefers open country with scattered perches for hunting and fairly dense brush for nesting.	No	**Presumed absent**. There is no suitable habitat.
Lasiurus xanthinus western yellow bat	Fed: CA:	None CSC	Roosts in palm trees in foothill riparian, desert wash, and palm oasis habitats with access to water for foraging	No	**Presumed absent**. There is no suitable habitat.
Lepus californicus bennettii San Diego black-tailed jackrabbit	Fed: CA:	None CSC	Occupies many diverse habitats, but primarily is found in arid regions supporting short-grass habitats.	No	**Moderate**. The undeveloped fields adjacent to the project site provide suitable habitat.
Neotoma lepida intermedia San Diego desert woodrat	Fed: CA:	None CSC	Occurs in coastal scrub communities between San Luis Obispo and San Diego Counties. Prefers moderate to dense canopies, and especially rocky outcrops.	No	**Low**. There is no suitable habitat.
Numenius americanus Long-billed curlew	Fed: CA:	None WL	Breeds on plains, grassland and prairies. It spends the winter on lake and river shores, marshes, mudflats, and sandy beaches.	No	**Presumed absent**. There is no suitable habitat.
Nycticorax nycticorax black-crowned night heron	Fed: CA:	None None	Lives in fresh and salt water marshes, swamps, lakes, and wooded streams	No	**Presumed absent**. There is no suitable habitat.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-Site**	**Potential to Occur On-Site**
Onychomys torridus ramona southern grasshopper mouse	Fed: None CA: CSC	Found in low arid scrub and semi-scrub vegetation. Nest in burrows, and while they may dig their own burrows in sandy or other friable substrates, they often use burrows dub by other rodents.	No	**Presumed absent**. There is no suitable habitat.
Passerculus sandwichensis beldingi Belding's savannah sparrow	Fed: None CA: **END**	Year-round resident of salt marshes, and is therefore reliant upon these habitats to meet all of its life history requirements. Wetland-dependent species found along the southern California coast from Santa Barbara County into Baja California.	No	**Presumed absent**. There is no suitable habitat.
Perognathus longimembris brevinasus Los Angeles pocket mouse	Fed: None CA: CSC	Occurs in lower elevation grasslands and coastal sage scrub communities in and around the Los Angeles Basin. Prefers open ground with fine sandy soils. May not dig extensive burrows, but instead will seek refuge under weeds and dead leaves instead.	No	**Presumed absent**. There is no suitable habitat.
Phrynosoma blainvillii coast horned lizard	Fed: None CA: CSC	Found in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	No	**Low**. The undeveloped fields adjacent to the project site provide marginal habitat.
Picoides nuttallii Nuttall's woodpecker	Fed: None CA: None	Endemic to oak and mixed woodlands near water sources and has been known to inhabit conifer trees as well. Prefers areas that are arid to mesic and those spaces containing scrub oaks along streamside foliage.	No	**Presumed absent**. There is no suitable habitat.
Plegadis chihi white-faced ibis	Fed: None CA: WL	Prefers to feed in fresh emergent wetland, shallow lacustrine waters, muddy ground of wet meadows, and irrigated or flooded pastures and croplands. Roosts amidst dense, freshwater emergent vegetation such as bulrushes, cattails, reeds or low shrubs over water.	No	**Presumed absent**. There is no suitable habitat.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-Site**	**Potential to Occur On-Site**
Polioptila californica californica coastal California gnatcatcher	Fed: **THR** CA: CSC	Obligate resident of sage scrub habitats that are dominated by California sagebrush. This species generally occurs below 750 feet elevation in coastal regions and below 1,500 feet inland. It ranges from the Ventura County south to San Diego County and northern Baja California and it is less common in sage scrub with a high percentage of tall shrubs. It prefers habitat with more low-growing vegetation.	No	**Presumed absent**. There is no suitable habitat.
Pooecetes gramineus affinis Oregon vesper sparrow	Fed: None CA: CSC	Breeds in sparsely vegetated, grassland habitats with scattered trees or shrubs. Structural diversity is important because these sparrows use the taller perches for singing whereas open areas are used for foraging.	No	**Presumed absent**. There is no suitable habitat.
Setophaga petechia yellow warbler	Fed: None CA: CSC	Nests over all of California except the Central Valley, the Mojave Desert region, and high altitudes and the eastern side of the Sierra Nevada. Winters along the Colorado River and in parts of Imperial and Riverside Counties. Nests in riparian areas dominated by willows, cottonwoods, sycamores, or alders or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	No	**Presumed absent**. There is no suitable habitat.
Spea hammondii western spadefoot	Fed: None CA: CSC	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washed, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rainpools which do not contain bullfrogs, fish, or crayfish are necessary for breeding.	No	**Presumed absent**. There is no suitable habitat.
Spinus lawrencei Lawrence's goldfinch	Fed: None CA: None	Open woodlands, chaparral, and weedy fields. Closely associated with oaks. Nests in open oak or other arid woodland and chaparral near water.	No	**Presumed absent**. There is no suitable habitat.
Streptocephalus woottoni Riverside fairy shrimp	Fed: **END** CA: None	Occurs in vernal pools filled by winter and spring rains and hatches late in the season as the water warms. Endemic to western Riverside, Orange, and San Diego Counties in tectonic swales/earth slump basins in grassland and coastal sage scrub.	No	**Presumed absent**. There is no suitable habitat.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-Site**	**Potential to Occur On-Site**
Vireo bellii pusillus least Bell's vireo	Fed: **END** CA: **END**	Primarily occupy riverine riparian habitat that typically feature dense cover within 1 - 2 meters of the ground and a dense, stratified canopy. Typically it is associated with southern willow scrub, cottonwood-willow forest, mule fat scrub, sycamore alluvial woodlands, coast live oak riparian forest, arroyo willow riparian forest, or mesquite in desert localities.	No	**Presumed absent**. There is no suitable habitat.
Plant Species				
Allium munzii Munz's onion	Fed: **END** CA: **THR** CNPS: 1B.1	Occurs in chaparral, coastal scrub, cismontane woodland, pinyon-juniper woodland, valley and foothill grassland. Prefers heavy clay soils and openings within shrublands or woodlands. From 974 to 3,510 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Amborisa pumila San Diego ambrosia	Fed: **END** CA: None CNPS: 1B.1	Occurs in open habitats in coarse substrates near drainages, and in upland areas on clay slopes or on the dry margins of vernal pools. This species occurs in a variety of associations that are dominated by sparse grasslands or marginal wetland habitats such as river terraces, pools, and alkali playas. From 66 to 1,362 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Atriplex coronate var. notatior San Jacinto Valley crownscale	Fed: **END** CA: None CNPS: 1B.1	Occurs on playas, valley and foothill grasslands, and vernal pools. Prefers dry, alkaline flats. Found from 456 to 1,640 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Brodiaea filifolia thread-leaved bordiaea	Fed: **THR** CA: **END** CNPS: 1B.1	Usually in clay soils within cismontane woodland, coastal scrub, playas, valley and foothill grassland, and vernal pools. From 82 to 3,675 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
California macrophylla round-leaved filaree	Fed: None CA: None CNPS: 1B.1	Occurs in clay soils in cismontane woodland and in valley and foothill grassland. From 49 to 3,937 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Carex buxbaumii Buxbaum's sedge	Fed: None CA: None CNPS: 4.2	Found in bogs and fens, meadows and seeps (mesic), and marshes and swamps. From 9 to 10,826 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-Site**	**Potential to Occur On-Site**
Caulanthus simulans Payson's jewelflower	Fed: None CA: None CNPS: 4.2	Occurs on granitic sandy soils in chaparral and coastal scrub habitats. From 295 to 7,217 feet.	No	**Presumed absent**. There is no suitable habitat.
Centromadia pungens ssp. laevis smooth tarplant	Fed: None CA: None CNPS: 1B.1	Occurs in meadows, playas, riparian woodland, and valley and foothill grassland. From 0 to 2,100 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Chorizanthe leptotheca Peninsular spineflower	Fed: None CA: None CNPS: 4.2	Typically found in xeric openings in chamise chaparral. From 984 to 6,233 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Chorizanthe parryi var. parryi Parry's spineflower	Fed: None CA: None CNPS: 1B.1	Occurs within the alluvial chaparral and scrub of the San Gabriel, San Bernardino and San Jacinto Mountains. From 902 to 4,003 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Chorizanthe polygonoides var. longispina long-spined spineflower	Fed: None CA: None CNPS: 1B.2	Often in clay. Occurs in chaparral, coastal scrub, meadows and seeps, valley and foothill grasslands, and vernal pools. From 98 to 5,020 feet.	No	**Presumed absent**. There is no suitable habitat.
Convolvulus simulans small-flowered morning-glory	Fed: None CA: None CNPS: 4.2	Found in clay serpentinite seeps. In openings in chaparral openings, coastal scrub, valley and foothill grasslands. From 98 to 2,296 feet.	No	**Presumed absent**. There is no suitable habitat.
Deinandra paniculata paniculate tarplant	Fed: None CA: None CNPS: 4.2	Typically found in vernally mesic, sometimes sandy soils in coastal scrub, valley and foothill grasslands, and vernal pools. From 82 to 3,085 feet.	No	**Presumed absent**. There is no suitable habitat.
Dodecahema leptoceras slender-horned spineflower	Fed: **END** CA: **END** CNPS: 1B.1	Found in sandy soil in association with mature alluvial scrub. Ideal habitat appears to be a terrace or bench that receives overbank deposits every 50 to 100 years. Cryptogamic crusts are frequently present in occupied areas. From 656 to 2,493 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-Site**	**Potential to Occur On-Site**
Dudleya multicaulis many-stemmed dudleya	Fed: None CA: None CNPS: 1B.2	Often on heavy and/or clay soils and around granitic outcrops in chaparral, coastal sage scrub, and grasslands in Los Angeles, Orange, Riverside, San Bernardino, and San Diego Counties. From 0 to 2,528 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Harpagonella palmeri Palmer's grapplinghook	Fed: None CA: None CNPS: 4.2	Occurs on clay soils in chaparral, coastal scrub, valley and foothill grasslands. From 66 to 3,133 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Hordeum intercedens vernal barley	Fed: None CA: None CNPS: 3.2	Found in coastal dunes, coastal scrub, valley and foothill grassland (saline flats and depressions) and in vernal pools. From 16 to 3,280 feet.	No	**Presumed absent**. There is no suitable habitat.
Juglans california Southern California black walnut	Fed: None CA: None CNPS: 4.2	Utilizes a variety of habitats, typically on deep, friable tertiary marine shales that have a high water-holding capacity. From 164 to 2,952 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Lasthenia glabrata ssp. coulteri Coulter's goldfields	Fed: None CA: None CNPS: 1B.1	Usually alkaline soils in marshes, playas, vernal pools, and valley and foothill grassland. From 3 to 4,003 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Lepidium virginicum var. robinsonii Robinson's pepper-grass	Fed: None CA: None CNPS: 4.3	Dry soils on chaparral and coastal sage scrub from 3 to 2,904 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Microseris douglasii ssp. platycarpha small-flowered microseris	Fed: None CA: None CNPS: 4.2	Found on clay lenses in perennial grasslands, on the periphery of vernal pools, or in broad openings in sage scrub. From 50 to 3,510 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Myosurus minimus ssp. apus little mousetail	Fed: None CA: None CNPS: 3.1	Occurs in alkaline soils in valley and foothill grassland and vernal pools. From 66 to 2,100 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.

U.S. Fish and Wildlife Service (USFWS) - California Department of Fish and California Native Plant Society

Scientific Name Common Name	**Status**	**Habitat**	**Observed On-Site**	**Potential to Occur On-Site**
Navarretia fossalis Spreading navarretia	Fed: **THR** CA: None CNPS: 1B.1	Found in chenopod scrub, shallow freshwater marshes and swamps, playas, and vernal pools. From 98 to 2,149 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Orcuttia californica Californica Orcutt grass	Fed: **END** CA: **END** CNPS: 1B.1	Occurs in vernal pools. From 50 to 2,100 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Romneya coulteri Coulter's matilija poppy	Fed: None CA: None CNPS: 4.2	Occurs in dry washes and canyons in mildly disturbed sage scrub, chaparral and along rocky drainages. From 65 to 656 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Viguiera laciniata San Diego County viguiera	Fed: **END** CA: **END** CNPS: 4.2	An arid sage scrub plant, which is often a co-dominant element of the plant community. From 196 to 2,460 feet in elevation.	No	**Presumed absent**. There is no suitable habitat.
Sensitive Habitats				
Desert Fan Palm Oasis Woodland	CDFW Sensitive Habitat	Found within canyons and along the San Andreas Fault Zone, where water occurs naturally. They are generally characterized by open to dense groves of native desert fan palms (Washingtonia filifera).	No	**Absent**.
Southern Coast Live Oak Riparian Forest	CDFW Sensitive Habitat	Open to locally dense evergreen riparian woodlands dominated by *Quercus agrifolia*. This type appears to be richer in herbs and poorer in understory shrubs than other riparian communities. Bottomlands and outer floodplains along larger streams, on fine-grained, rich alluvium. Canyons and valleys of coastal southern California.	No	**Absent**.
Southern Cottonwood Willow Riparian Forest	CDFW Sensitive Habitat	Dominated by cottonwood and willow trees and shrubs. Considered to be an early successional stage as both species are known to germinate almost exclusively on recently deposited or exposed alluvial soils.	No	**Absent**.
Southern Mixed Riparian Forest	CDFW Sensitive Habitat	Riparian zones dominated by a mix of large trees and shrubs.	No	**Absent**.

Federal
END- Federal Endangered
THR- Federal Threatened
FCE- Federal Candidate Endangered
FSC- Federal Species of Concern

Wildlife (CDFW) - California
END- California Endangered
THR- California Threatened
CCE- California Candidate Endangered
CSC- California Species of Concern
WL- Watch List
FP- Fully Protected
Rare

(CNPS)
California Rare Plant Rank
1A Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
1B Plants Rare, Threatened, or Endangered in California and Elsewhere
2A Plants Presumed Extirpated in California, but More Common Elsewhere
2B Plants Rare, Threatened, or Endangered in California, but More Common Elsewhere
3 Plants About Which More information is Needed – A Review List
4 Plants of Limited Distribution – A Review List

Threat Ranks
0.1- Seriously threatened in California
0.2- Moderately threatened in California
0.3- Not very threatened in California

Appendix C Regulatory Background

Special status species are native species that have been afforded special legal or management protection because of concern for their continued existence. There are several categories of protection at both federal and state levels, depending on the magnitude of threat to continued existence and existing knowledge of population levels.

Federal Regulations

Endangered Species Act of 1973

Federally listed threatened and endangered species and their habitats are protected under provisions of the Federal Endangered Species Act (ESA). Section 9 of the ESA prohibits "take" of threatened or endangered species. "Take" under the ESA is defined as to "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any of the specifically enumerated conduct." The presence of any federally threatened or endangered species that are in a project area generally imposes severe constraints on development, particularly if development would result in "take" of the species or its habitat. Under the regulations of the ESA, the United States Fish and Wildlife Service (USFWS) may authorize "take" when it is incidental to, but not the purpose of, an otherwise lawful act.

Critical Habitat is designated for the survival and recovery of species listed as threatened or endangered under the ESA. Critical Habitat includes those areas occupied by the species, in which are found physical and biological features that are essential to the conservation of an ESA listed species and which may require special management considerations or protection. Critical Habitat may also include unoccupied habitat if it is determined that the unoccupied habitat is essential for the conservation of the species.

Whenever federal agencies authorize, fund, or carry out actions that may adversely modify or destroy Critical Habitat, they must consult with USFWS under Section 7 of the ESA. The designation of Critical Habitat does not affect private landowners, unless a project they are proposing uses federal funds, or requires federal authorization or permits (e.g., funding from the Federal Highway Administration or a permit from the U.S. Army Corps of Engineers (Corps)).

If USFWS determines that Critical Habitat will be adversely modified or destroyed from a proposed action, the USFWS will develop reasonable and prudent alternatives in cooperation with the federal institution to ensure the purpose of the proposed action can be achieved without loss of Critical Habitat. If the action is not likely to adversely modify or destroy Critical Habitat, USFWS will include a statement in its biological opinion concerning any incidental take that may be authorized and specify terms and conditions to ensure the agency is in compliance with the opinion.

Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) (16 U.S. Government Code [USC] 703) makes it unlawful to pursue, capture, kill, possess, or attempt to do the same to any migratory bird or part, nest, or egg of any such bird listed in wildlife protection treaties between the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union, and authorizes the U.S. Secretary of the Interior to protect and regulate the taking of migratory birds. It establishes seasons and bag limits for hunted species and protects migratory birds, their occupied nests, and their eggs (16 USC 703; 50 CFR 10, 21).

The MBTA covers the taking of any nests or eggs of migratory birds, except as allowed by permit pursuant to 50 CFR, Part 21. Disturbances causing nest abandonment and/or loss of reproductive effort (i.e., killing or abandonment of eggs or young) may also be considered “take.” This regulation seeks to protect migratory birds and active nests.

In 1972, the MBTA was amended to include protection for migratory birds of prey (e.g., raptors). Six families of raptors occurring in North America were included in the amendment: Accipitridae (kites, hawks, and eagles); Cathartidae (New World vultures); Falconidae (falcons and caracaras); Pandionidae (ospreys); Strigidae (typical owls); and Tytonidae (barn owls). The provisions of the 1972 amendment to the MBTA protects all species and subspecies of the families listed above. The MBTA protects over 800 species including geese, ducks, shorebirds, raptors, songbirds and many relatively common species.

State Regulations

California Environmental Quality Act (CEQA)

The California Environmental Quality Act (CEQA) provides for the protection of the environment within the State of California by establishing State policy to prevent significant, avoidable damage to the environment through the use of alternatives or mitigation measures for projects. It applies to actions directly undertaken, financed, or permitted by State lead agencies. If a project is determined to be subject to CEQA, the lead agency will be required to conduct an Initial Study (IS); if the IS determines that the project may have significant impacts on the environment, the lead agency will subsequently be required to write an Environmental Impact Report (EIR). A finding of non-significant effects will require either a Negative Declaration or a Mitigated Negative Declaration instead of an EIR. Section 15380 of the CEQA Guidelines independently defines “endangered” and “rare” species separately from the definitions of the California Endangered Species Act (CESA). Under CEQA, “endangered” species of plants or animals are defined as those whose survival and reproduction in the wild are in immediate jeopardy, while “rare” species are defined as those who are in such low numbers that they could become endangered if their environment worsens.

California Endangered Species Act (CESA)

In addition to federal laws, the state of California implements the CESA which is enforced by CDFW. The CESA program maintains a separate listing of species beyond the FESA, although the provisions of each act are similar.

State-listed threatened and endangered species are protected under provisions of the CESA. Activities that may result in “take” of individuals (defined in CESA as; “hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill”) are regulated by CDFW. Habitat degradation or modification is not included in the definition of “take” under CESA. Nonetheless, CDFW has interpreted “take” to include the destruction of nesting, denning, or foraging habitat necessary to maintain a viable breeding population of protected species.

The State of California considers an endangered species as one whose prospects of survival and reproduction are in immediate jeopardy. A threatened species is considered as one present in such small numbers throughout its range that it is likely to become an endangered species in the near future in the absence of special protection or management. A rare species is one that is considered present in such small numbers throughout its range that it may become endangered if its present environment worsens. State threatened and endangered species are fully protected against take, as defined above.

The CDFW has also produced a species of special concern list to serve as a species watch list. Species on this list are either of limited distribution or their habitats have been reduced substantially, such that a threat to their populations may be imminent. Species of special concern may receive special attention during environmental review, but they do not have formal statutory protection. At the federal level, USFWS also uses the label species of concern, as an informal term that refers to species which might be in need of concentrated conservation actions. As the Species of Concern designated by USFWS do not receive formal legal protection, the use of the term does not necessarily ensure that the species will be proposed for listing as a threatened or endangered species.

Fish and Game Code

Fish and Game Code Sections 3503, 3503.5, 3511, and 3513 are applicable to natural resource management. For example, Section 3503 of the Code makes it unlawful to destroy any birds’ nest or any birds’ eggs that are protected under the MBTA. Further, any birds in the orders Falconiformes or Strigiformes (Birds of Prey, such as hawks, eagles, and owls) are protected under Section 3503.5 of the Fish and Game Code which makes it unlawful to take, possess, or destroy their nest or eggs. A consultation with CDFW may be required prior to the removal of any bird of prey nest that may occur on a

project site. Section 3511 of the Fish and Game Code lists fully protected bird species, where the CDFW is unable to authorize the issuance of permits or licenses to take these species. Pertinent species that are State fully protected by the State include golden eagle (*Aquila chrysaetos*) and white-tailed kite (*Elanus leucurus*). Section 3513 of the Fish and Game Code makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA or any part of such migratory nongame bird except as provided by rules and regulations adopted by the Secretary of the Interior under provisions of the MBTA.

Native Plant Protection Act

Sections 1900–1913 of the Fish and Game Code were developed to preserve, protect, and enhance Rare and Endangered plants in the state of California. The act requires all state agencies to use their authority to carry out programs to conserve Endangered and Rare native plants. Provisions of the Native Plant Protection Act prohibit the taking of listed plants from the wild and require notification of the CDFW at least ten days in advance of any change in land use which would adversely impact listed plants. This allows the CDFW to salvage listed plant species that would otherwise be destroyed.

California Native Plant Society Rare and Endangered Plant Species

Vascular plants listed as rare or endangered by the CNPS, but which have no designated status under FESA or CESA are defined as follows:

California Rare Plant Rank

- 1A- Plants Presumed Extirpated in California and either Rare or Extinct Elsewhere
- 1B- Plants Rare, Threatened, or Endangered in California and Elsewhere
- 2A- Plants Presumed Extirpated in California, But More Common Elsewhere
- 2B- Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
- 3- Plants about Which More Information is Needed - A Review List
- 4- Plants of Limited Distribution - A Watch List

Threat Ranks

- .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).

There are three key agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The Corps Regulatory Branch regulates activities pursuant to Section 404 of the Federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the CDFG regulates activities under the Fish and Game Code Section 1600-1616, and the Regional Board regulates activities pursuant to Section 401 of the CWA and the California Porter-Cologne Water Quality Control Act.

Federal Regulations

Section 404 of the Clean Water Act

Since 1972, the Corps and U.S. Environmental Protection Agency (EPA) have jointly regulated the filling of "waters of the U.S.," including wetlands, pursuant to Section 404 of the Clean Water Act (CWA). The Corps has regulatory authority over the discharge of dredged or fill material into the waters of the United States under Section 404 of the CWA. The Corps and EPA define "fill material" to include any "material placed in waters of the United States where the material has the effect of: (i) replacing any portion of a water of the United States with dry land; or (ii) changing the bottom elevation of any portion of the waters of the United States." Examples include, but are not limited to, sand, rock, clay, construction debris, wood chips, and "materials used to create any structure or infrastructure in the waters of the United States." In order to further define the scope of waters protected under the CWA, the Corps and EPA published the Clean Water Rule on June 29, 2015. Pursuant to the Clean Water Rule, the term "*waters of the United States*" is defined as follows:

(i) 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.

(ii) All interstate waters, including interstate wetlands[1].

(iii) The territorial seas.

(iv) All impoundments of waters otherwise defined as waters of the United States under the definition.

(v) All tributaries[2] of waters identified in paragraphs (i) through (iii) mentioned above.

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[1] The term *wetlands* means those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions.

[2] The terms *tributary* and *tributaries* each mean a water that contributes flow, either directly or through another water (including an impoundment identified in paragraph (iv) mentioned above), to a water identified in paragraphs (i) through (iii) mentioned above, that is characterized by the presence of the physical indicators of a bed and banks and an ordinary high water mark.

(vi) All waters adjacent[3] to a water identified in paragraphs (i) through (v) mentioned above, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters.

(vii) All prairie potholes, Carolina bays and Delmarva bays, Pocosins, western vernals pools, Texas coastal prairie wetlands, where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (i) through (iii) meantioned above.

(viii) All waters located within the 100-year floodplain of a water identified in paragraphs (i) through (iii) mentioned above and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (i) through (v) mentioned above, where they are determined on a case-specific basis to have a significant nexus to a waters identified in paragraphs (i) through (iii) mentioned above.

The following features are not defined as "waters of the United States" even when they meet the terms of paragraphs (iv) through (viii) mentioned above:

(i) Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of the Clean Water Act.

(ii) Prior converted cropland.

(iii) The following ditches:

- (A) Ditches with ephemeral flow that are not a relocated tributary or excavated in a tributary.
- (B) Ditches with intermittent flow that are not a relocated tributary, excavated in a tributary, or drain wetlands.
- (C) Ditches that do not flow, either directly or through another water, into a water of the United States as identified in paragraphs (i) through (iii) of the previous section.

(iv) The following features:

- (A) Artificially irrigated areas that would revert to dry land should application of water to that area cease;
- (B) Artificial, constructed lakes and ponds created in dry land such as farm and stock watering ponds, irrigation ponds, settling basins, fields flooded for rice growing, log cleaning ponds, or cooling ponds;

[3] The term *adjacent* means bordering, contiguous, or neighboring a water identified in paragraphs (i) through (v) mentioned above, including waters separated by constructed dikes or barriers, natural river berms, beach dunes, and the like.

(C) Artificial reflecting pools or swimming pools created in dry land;
(D) Small ornamental waters created in dry land;
(E) Water-filled depressions created in dry land incidental to mining or construction activity, including pits excavated for obtaining fill, sand, or gravel that fill with water;
(F) Erosional features, including gullies, rills, and other ephemeral features that do not meet the definition of a tributary, non-wetland swales, and lawfully constructed grassed waterways; and
(G) Puddles.

(v) Groundwater, including groundwater drained through subsurface drainage systems.

(vi) Stormwater control features constructed to convey, treat, or store stormwater that are created in dry land.

(vii) Wastewater recycling structures constructed in dry land; detention and retention basins built for wastewater recycling; groundwater recharge basins; percolation ponds built for wastewater recycling; and water distributary structures built for wastewater recycling.

Section 401 of the Clean Water Act

Pursuant to Section 401 of the CWA, any applicant for a federal license or permit to conduct any activity which may result in any discharge to waters of the United States must provide certification from the State or Indian tribe in which the discharge originates. This certification provides for the protection of the physical, chemical, and biological integrity of waters, addresses impacts to water quality that may result from issuance of federal permits, and helps insure that federal actions will not violate water quality standards of the State or Indian tribe. In California, there are nine Regional Water Quality Control Boards (Regional Board) that issue or deny certification for discharges to waters of the United States and waters of the State, including wetlands, within their geographical jurisdiction. The State Water Resources Control Board assumed this responsibility when a project has the potential to result in the discharge to waters within multiple Regional Boards.

State Regulations

Fish and Game Code

Fish and Game Code Sections 1600 et. seq. establishes a fee-based process to ensure that projects conducted in and around lakes, rivers, or streams do not adversely impact fish and wildlife resources, or, when adverse impacts cannot be avoided, ensures that adequate mitigation and/or compensation is provided.

Fish and Game Code Section 1602 requires any person, state, or local governmental agency or public utility to notify the CDFW before beginning any activity that will do one or more of the following:

(1) substantially obstruct or divert the natural flow of a river, stream, or lake;
(2) substantially change or use any material from the bed, channel, or bank of a river, stream, or lake; or
(3) deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it can pass into a river, stream, or lake.

Fish and Game Code Section 1602 applies to all perennial, intermittent, and ephemeral rivers, streams, and lakes in the State. CDFW's regulatory authority extends to include riparian habitat (including wetlands) supported by a river, stream, or lake regardless of the presence or absence of hydric soils and saturated soil conditions. Generally, the CDFW takes jurisdiction to the top of bank of the stream or to the outer limit of the adjacent riparian vegetation (outer drip line), whichever is greater. Notification is generally required for any project that will take place in or in the vicinity of a river, stream, lake, or their tributaries. This includes rivers or streams that flow at least periodically or permanently through a bed or channel with banks that support fish or other aquatic life and watercourses having a surface or subsurface flow that support or have supported riparian vegetation. A Section 1602 Streambed Alteration Agreement would be required if impacts to identified CDFW jurisdictional areas occur.

Porter Cologne Act

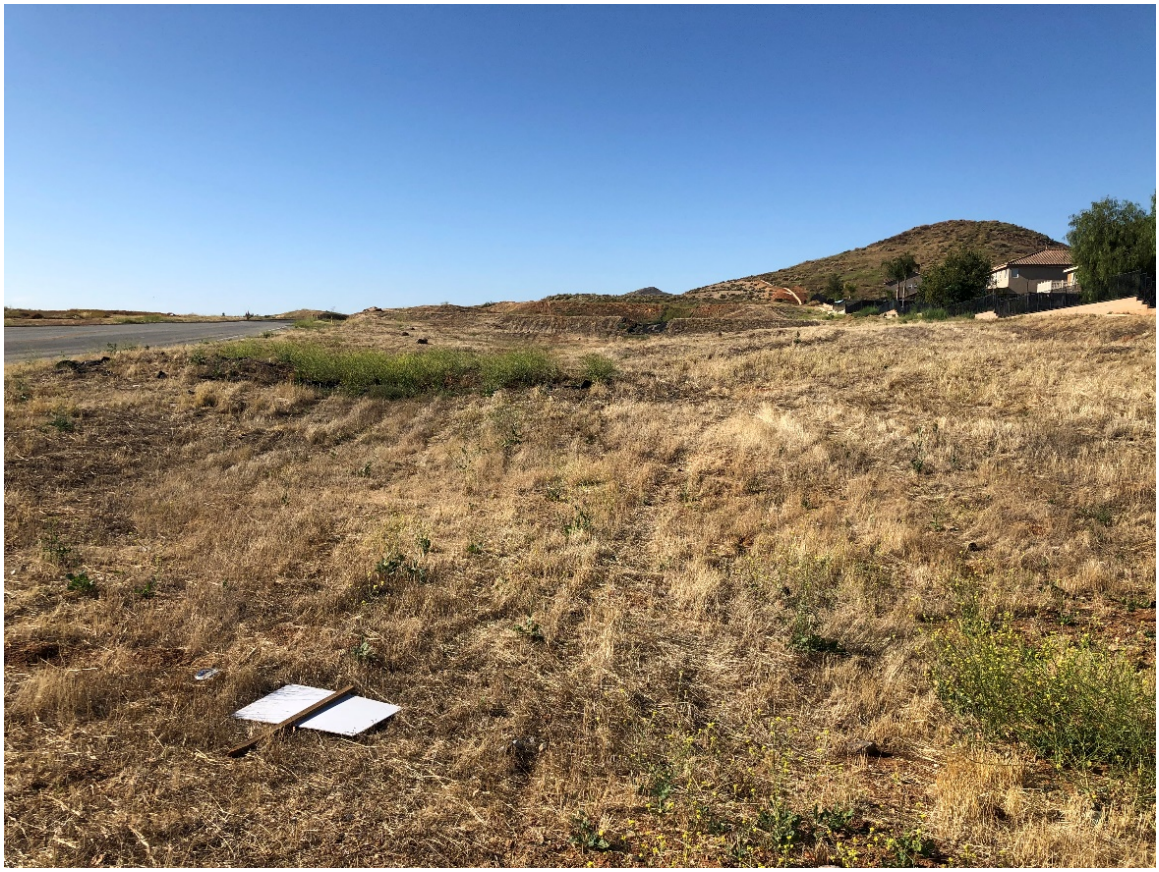
The California *Porter-Cologne Water Quality Control Act* gives the State very broad authority to regulate waters of the State, which are defined as any surface water or groundwater, including saline waters. The Porter-Cologne Act has become an important tool in the post SWANCC and Rapanos regulatory environment, with respect to the state's authority over isolated and insignificant waters. Generally, any person proposing to discharge waste into a water body that could affect its water quality must file a Report of Waste Discharge in the event that there is no Section 404/401 nexus. Although "waste" is partially defined as any waste substance associated with human habitation, the Regional Board also interprets this to include fill discharged into water bodies.

Appendix B

Representative Site Photographs

Photograph 1 – Proposed water tank site facing southwest.

Photograph 2 – Proposed water tank site facing west.



Photograph 3 – Option 2, west side of Goetz Road near its intersection with Goldenrod Avenue, facing south.

Photograph 4 – Option 2, east side of Goetz Road facing east.

Photograph 5 – Option 2, south of McLaughlin Road near its intersection with Goetz Road, facing northeast.

Photograph 6 – Option 2, north of McLaughlin Road, facing west.

Appendix C

CNDDB and CNPS Database Search Results

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Romoland (3311762) OR Winchester (3311761) OR Lake Elsinore (3311763) OR Steele Peak (3311773) OR Perris (3311772) OR Lakeview (3311771) OR Bachelor Mtn. (3311751) OR Murrieta (3311752) OR Wildomar (3311753))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Abronia villosa var. aurita chaparral sand-verbena	PDNYC010P1	None	None	G5T2?	S2	1B.1
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
Allium munzii Munz's onion	PMLIL022Z0	Endangered	Threatened	G1	S1	1B.1
Almutaster pauciflorus alkali marsh aster	PDASTEL010	None	None	G4	S1S2	2B.2
Ambrosia pumila San Diego ambrosia	PDAST0C0M0	Endangered	None	G1	S1	1B.1
Anaxyrus californicus arroyo toad	AAABB01230	Endangered	None	G2G3	S2S3	SSC
Anniella stebbinsi southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
Aquila chrysaetos golden eagle	ABNKC22010	None	None	G5	S3	FP
Arctostaphylos rainbowensis Rainbow manzanita	PDERI042T0	None	None	G2	S2	1B.1
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Artemisiospiza belli belli Bell's sage sparrow	ABPBX97021	None	None	G5T2T3	S3	WL
Asio otus long-eared owl	ABNSB13010	None	None	G5	S3?	SSC
Aspidoscelis hyperythra orange-throated whiptail	ARACJ02060	None	None	G5	S2S3	WL
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
Astragalus pachypus var. jaegeri Jaeger's milk-vetch	PDFAB0F6G1	None	None	G4T1	S1	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Atriplex coronata var. notatior San Jacinto Valley crownscale	PDCHE040C2	Endangered	None	G4T1	S1	1B.1
Atriplex parishii Parish's brittlescale	PDCHE041D0	None	None	G1G2	S1	1B.1
Atriplex serenana var. davidsonii Davidson's saltscale	PDCHE041T1	None	None	G5T1	S1	1B.2
Ayenia compacta California ayenia	PDSTE01020	None	None	G4	S3	2B.3
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
Branchinecta lynchi vernal pool fairy shrimp	ICBRA03030	Threatened	None	G3	S3	
Branchinecta sandiegonensis San Diego fairy shrimp	ICBRA03060	Endangered	None	G2	S2	
Brodiaea filifolia thread-leaved brodiaea	PMLIL0C050	Threatened	Endangered	G2	S2	1B.1
Brodiaea santarosae Santa Rosa Basalt brodiaea	PMLIL0C0G0	None	None	G1	S1	1B.2
Buteo regalis ferruginous hawk	ABNKC19120	None	None	G4	S3S4	WL
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Calochortus plummerae Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
Calochortus weedii var. intermedius intermediate mariposa-lily	PMLIL0D1J1	None	None	G3G4T2	S2	1B.2
Campylorhynchus brunneicapillus sandiegensis coastal cactus wren	ABPBG02095	None	None	G5T3Q	S3	SSC
Caulanthus simulans Payson's jewelflower	PDBRA0M0H0	None	None	G4	S4	4.2
Centromadia pungens ssp. laevis smooth tarplant	PDAST4R0R4	None	None	G3G4T2	S2	1B.1
Chaetodipus californicus femoralis Dulzura pocket mouse	AMAFD05021	None	None	G5T3	S3	SSC
Chaetodipus fallax fallax northwestern San Diego pocket mouse	AMAFD05031	None	None	G5T3T4	S3S4	SSC
Charadrius alexandrinus nivosus western snowy plover	ABNNB03031	Threatened	None	G3T3	S2S3	SSC
Chorizanthe parryi var. parryi Parry's spineflower	PDPGN040J2	None	None	G3T2	S2	1B.1
Chorizanthe polygonoides var. longispina long-spined spineflower	PDPGN040K1	None	None	G5T3	S3	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Cicindela senilis frosti senile tiger beetle	IICOL02121	None	None	G2G3T1T3	S1	
Circus hudsonius northern harrier	ABNKC11011	None	None	G5	S3	SSC
Clinopodium chandleri San Miguel savory	PDLAM08030	None	None	G3	S2	1B.2
Coleonyx variegatus abbotti San Diego banded gecko	ARACD01031	None	None	G5T3T4	S1S2	SSC
Crotalus ruber red-diamond rattlesnake	ARADE02090	None	None	G4	S3	SSC
Cryptantha wigginsii Wiggins' cryptantha	PDBOR0A400	None	None	G2	S1	1B.2
Diadophis punctatus modestus San Bernardino ringneck snake	ARADB10015	None	None	G5T2T3	S2?	
Dipodomys merriami parvus San Bernardino kangaroo rat	AMAFD03143	Endangered	None	G5T1	S1	SSC
Dipodomys stephensi Stephens' kangaroo rat	AMAFD03100	Endangered	Threatened	G2	S2	
Dodecahema leptoceras slender-horned spineflower	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
Dudleya multicaulis many-stemmed dudleya	PDCRA040H0	None	None	G2	S2	1B.2
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Emys marmorata western pond turtle	ARAAD02030	None	None	G3G4	S3	SSC
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eryngium aristulatum var. parishii San Diego button-celery	PDAPI0Z042	Endangered	Endangered	G5T1	S1	1B.1
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Euphydryas editha quino quino checkerspot butterfly	IILEPK405L	Endangered	None	G5T1T2	S1S2	
Geothallus tuberosus Campbell's liverwort	NBHEP1C010	None	None	G1	S1	1B.1
Gila orcuttii arroyo chub	AFCJB13120	None	None	G2	S2	SSC
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Harpagonella palmeri Palmer's grapplinghook	PDBOR0H010	None	None	G4	S3	4.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Hesperocyparis forbesii Tecate cypress	PGCUP040C0	None	None	G2	S2	1B.1
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Juncus luciensis Santa Lucia dwarf rush	PMJUN013J0	None	None	G3	S3	1B.2
Lanius ludovicianus loggerhead shrike	ABPBR01030	None	None	G4	S4	SSC
Lasiurus xanthinus western yellow bat	AMACC05070	None	None	G5	S3	SSC
Lasthenia glabrata ssp. coulteri Coulter's goldfields	PDAST5L0A1	None	None	G4T2	S2	1B.1
Lepidium virginicum var. robinsonii Robinson's pepper-grass	PDBRA1M114	None	None	G5T3	S3	4.3
Lepus californicus bennettii San Diego black-tailed jackrabbit	AMAEB03051	None	None	G5T3T4	S3S4	SSC
Lilium parryi lemon lily	PMLIL1A0J0	None	None	G3	S3	1B.2
Limnanthes alba ssp. parishii Parish's meadowfoam	PDLIM02052	None	Endangered	G4T2	S2	1B.2
Linderiella santarosae Santa Rosa Plateau fairy shrimp	ICBRA06020	None	None	G1G2	S1	
Monardella hypoleuca ssp. intermedia intermediate monardella	PDLAM180A4	None	None	G4T2?	S2?	1B.3
Myosurus minimus ssp. apus little mousetail	PDRAN0H031	None	None	G5T2Q	S2	3.1
Nama stenocarpa mud nama	PDHYD0A0H0	None	None	G4G5	S1S2	2B.2
Navarretia fossalis spreading navarretia	PDPLM0C080	Threatened	None	G2	S2	1B.1
Navarretia prostrata prostrate vernal pool navarretia	PDPLM0C0Q0	None	None	G2	S2	1B.1
Neotoma lepida intermedia San Diego desert woodrat	AMAFF08041	None	None	G5T3T4	S3S4	SSC
Nyctinomops femorosaccus pocketed free-tailed bat	AMACD04010	None	None	G4	S3	SSC
Onychomys torridus ramona southern grasshopper mouse	AMAFF06022	None	None	G5T3	S3	SSC
Orcuttia californica California Orcutt grass	PMPOA4G010	Endangered	Endangered	G1	S1	1B.1
Perognathus longimembris brevinasus Los Angeles pocket mouse	AMAFD01041	None	None	G5T1T2	S1S2	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Perognathus longimembris internationalis Jacumba pocket mouse	AMAFD01044	None	None	G5T2T3	S2	SSC
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Plegadis chihi white-faced ibis	ABNGE02020	None	None	G5	S3S4	WL
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T2Q	S2	SSC
Pseudognaphalium leucocephalum white rabbit-tobacco	PDAST440C0	None	None	G4	S2	2B.2
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Salvadora hexalepis virgultea coast patch-nosed snake	ARADB30033	None	None	G5T4	S2S3	SSC
Scutellaria bolanderi ssp. austromontana southern mountains skullcap	PDLAM1U0A1	None	None	G4T3	S3	1B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Sibaropsis hammittii Hammitt's clay-cress	PDBRA32010	None	None	G2	S2	1B.2
Sidalcea neomexicana salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2
Socalchemmis icenoglei Icenogle's socalchemmis spider	ILARAU7020	None	None	G1	S1	
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	
Southern Cottonwood Willow Riparian Forest Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Interior Basalt Flow Vernal Pool Southern Interior Basalt Flow Vernal Pool	CTT44310CA	None	None	G1	S1.2	
Southern Riparian Scrub Southern Riparian Scrub	CTT63300CA	None	None	G3	S3.2	
Southern Sycamore Alder Riparian Woodland Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
Spea hammondii western spadefoot	AAABF02020	None	None	G3	S3	SSC
Sphaerocarpos drewei bottle liverwort	NBHEP35030	None	None	G1	S1	1B.1
Streptocephalus woottoni Riverside fairy shrimp	ICBRA07010	Endangered	None	G1G2	S1S2	
Symphyotrichum defoliatum San Bernardino aster	PDASTE80C0	None	None	G2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Taricha torosa Coast Range newt	AAAAF02032	None	None	G4	S4	SSC
Taxidea taxus American badger	AMAJF04010	None	None	G5	S3	SSC
Texosporium sancti-jacobi woven-spored lichen	NLTEST7980	None	None	G3	S1	3
Thamnophis hammondii two-striped gartersnake	ARADB36160	None	None	G4	S3S4	SSC
Tortula californica California screw moss	NBMUS7L090	None	None	G2G3	S2S3	1B.2
Trichocoronis wrightii var. wrightii Wright's trichocoronis	PDAST9F031	None	None	G4T3	S1	2B.1
Valley Needlegrass Grassland Valley Needlegrass Grassland	CTT42110CA	None	None	G3	S3.1	
Vireo bellii pusillus least Bell's vireo	ABPBW01114	Endangered	Endangered	G5T2	S2	
Xanthocephalus xanthocephalus yellow-headed blackbird	ABPBXB3010	None	None	G5	S3	SSC

Record Count: 111

CNPS California Native Plant Society

Plant List

Inventory of Rare and Endangered Plants

63 matches found. *Click on scientific name for details*

Search Criteria

Found in Quads 3311773, 3311772, 3311771, 3311763, 3311762, 3311761, 3311753 3311752 and 3311751;

Modify Search Criteria Export to Excel Modify Columns Modify Sort Display Photos

Scientific Name	Common Name	Family	Lifeform	Blooming Period	CA Rare Plant Rank	State Rank	Global Rank
Abronia villosa var. aurita	chaparral sand-verbena	Nyctaginaceae	annual herb	(Jan)Mar-Sep	1B.1	S2	G5T2?
Allium munzii	Munz's onion	Alliaceae	perennial bulbiferous herb	Mar-May	1B.1	S1	G1
Ambrosia pumila	San Diego ambrosia	Asteraceae	perennial rhizomatous herb	Apr-Oct	1B.1	S1	G1
Amsinckia douglasiana	Douglas' fiddleneck	Boraginaceae	annual herb	Mar-May	4.2	S4	G4
Arctostaphylos rainbowensis	Rainbow manzanita	Ericaceae	perennial evergreen shrub	Dec-Mar	1B.1	S2	G2
Astragalus pachypus var. jaegeri	Jaeger's bush milk-vetch	Fabaceae	perennial shrub	Dec-Jun	1B.1	S1	G4T1
Atriplex coronata var. notatior	San Jacinto Valley crownscale	Chenopodiaceae	annual herb	Apr-Aug	1B.1	S1	G4T1
Atriplex pacifica	South Coast saltscale	Chenopodiaceae	annual herb	Mar-Oct	1B.2	S2	G4
Atriplex parishii	Parish's brittlescale	Chenopodiaceae	annual herb	Jun-Oct	1B.1	S1	G1G2
Atriplex serenana var. davidsonii	Davidson's saltscale	Chenopodiaceae	annual herb	Apr-Oct	1B.2	S1	G5T1
Ayenia compacta	California ayenia	Malvaceae	perennial herb	Mar-Apr	2B.3	S3	G4
Brodiaea filifolia	thread-leaved brodiaea	Themidaceae	perennial bulbiferous herb	Mar-Jun	1B.1	S2	G2
Brodiaea orcuttii	Orcutt's brodiaea	Themidaceae	perennial bulbiferous herb	May-Jul	1B.1	S2	G2
Brodiaea santarosae	Santa Rosa Basalt brodiaea	Themidaceae	perennial bulbiferous herb	May-Jun	1B.2	S1	G1
Calochortus catalinae	Catalina mariposa lily	Liliaceae	perennial bulbiferous herb	(Feb)Mar-Jun	4.2	S3S4	G3G4
Calochortus plummerae	Plummer's mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	4.2	S4	G4
Calochortus weedii var. intermedius	intermediate mariposa lily	Liliaceae	perennial bulbiferous herb	May-Jul	1B.2	S2	G3G4T2
Carex buxbaumii	Buxbaum's sedge	Cyperaceae	perennial rhizomatous herb	Mar-Aug	4.2	S3	G5
Caulanthus simulans	Payson's jewelflower	Brassicaceae	annual herb	(Feb)Mar-	4.2	S4	G4

				May(Jun)			
Centromadia pungens ssp. laevis	smooth tarplant	Asteraceae	annual herb	Apr-Sep	1B.1	S2	G3G4T2
Chorizanthe leptotheca	Peninsular spineflower	Polygonaceae	annual herb	May-Aug	4.2	S3	G3
Chorizanthe parryi var. parryi	Parry's spineflower	Polygonaceae	annual herb	Apr-Jun	1B.1	S2	G3T2
Chorizanthe polygonoides var. longispina	long-spined spineflower	Polygonaceae	annual herb	Apr-Jul	1B.2	S3	G5T3
Clinopodium chandleri	San Miguel savory	Lamiaceae	perennial shrub	Mar-Jul	1B.2	S2	G3
Convolvulus simulans	small-flowered morning-glory	Convolvulaceae	annual herb	Mar-Jul	4.2	S4	G4
Cryptantha wigginsii	Wiggins' cryptantha	Boraginaceae	annual herb	Feb-Jun	1B.2	S1	G2
Deinandra paniculata	paniculate tarplant	Asteraceae	annual herb	(Mar)Apr-Nov(Dec)	4.2	S4	G4
Dodecahema leptoceras	slender-horned spineflower	Polygonaceae	annual herb	Apr-Jun	1B.1	S1	G1
Dudleya multicaulis	many-stemmed dudleya	Crassulaceae	perennial herb	Apr-Jul	1B.2	S2	G2
Eryngium aristulatum var. parishii	San Diego button-celery	Apiaceae	annual / perennial herb	Apr-Jun	1B.1	S1	G5T1
Erythranthe diffusa	Palomar monkeyflower	Phrymaceae	annual herb	Apr-Jun	4.3	S3	G4
Geothallus tuberosus	Campbell's liverwort	Sphaerocarpaceae	ephemeral liverwort		1B.1	S1	G1
Harpagonella palmeri	Palmer's grapplinghook	Boraginaceae	annual herb	Mar-May	4.2	S3	G4
Hesperocyparis forbesii	Tecate cypress	Cupressaceae	perennial evergreen tree		1B.1	S2	G2
Holocarpha virgata ssp. elongata	graceful tarplant	Asteraceae	annual herb	May-Nov	4.2	S3	G5T3
Hordeum intercedens	vernal barley	Poaceae	annual herb	Mar-Jun	3.2	S3S4	G3G4
Horkelia cuneata var. puberula	mesa horkelia	Rosaceae	perennial herb	Feb-Jul(Sep)	1B.1	S1	G4T1
Juglans californica	Southern California black walnut	Juglandaceae	perennial deciduous tree	Mar-Aug	4.2	S4	G4
Juncus acutus ssp. leopoldii	southwestern spiny rush	Juncaceae	perennial rhizomatous herb	(Mar)May-Jun	4.2	S4	G5T5
Juncus luciensis	Santa Lucia dwarf rush	Juncaceae	annual herb	Apr-Jul	1B.2	S3	G3
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	Asteraceae	annual herb	Feb-Jun	1B.1	S2	G4T2
Lepechinia cardiophylla	heart-leaved pitcher sage	Lamiaceae	perennial shrub	Apr-Jul	1B.2	S2S3	G3
Lepidium virginicum var. robinsonii	Robinson's pepper-grass	Brassicaceae	annual herb	Jan-Jul	4.3	S3	G5T3
Lilium parryi	lemon lily	Liliaceae	perennial bulbiferous herb	Jul-Aug	1B.2	S3	G3
Limnanthes alba ssp. parishii	Parish's meadowfoam	Limnanthaceae	annual herb	Apr-Jun	1B.2	S2	G4T2

Microseris douglasii ssp. platycarpha	small-flowered microseris	Asteraceae	annual herb	Mar-May	4.2	S4	G4T4
Monardella hypoleuca ssp. intermedia	intermediate monardella	Lamiaceae	perennial rhizomatous herb	Apr-Sep	1B.3	S2?	G4T2?
Myosurus minimus ssp. apus	little mousetail	Ranunculaceae	annual herb	Mar-Jun	3.1	S2	G5T2Q
Navarretia fossalis	spreading navarretia	Polemoniaceae	annual herb	Apr-Jun	1B.1	S2	G2
Navarretia prostrata	prostrate vernal pool navarretia	Polemoniaceae	annual herb	Apr-Jul	1B.1	S2	G2
Orcuttia californica	California Orcutt grass	Poaceae	annual herb	Apr-Aug	1B.1	S1	G1
Polygala cornuta var. fishiae	Fish's milkwort	Polygalaceae	perennial deciduous shrub	May-Aug	4.3	S4	G5T4
Pseudognaphalium leucocephalum	white rabbit-tobacco	Asteraceae	perennial herb	(Jul)Aug-Nov(Dec)	2B.2	S2	G4
Quercus engelmannii	Engelmann oak	Fagaceae	perennial deciduous tree	Mar-Jun	4.2	S3	G3
Romneya coulteri	Coulter's matilija poppy	Papaveraceae	perennial rhizomatous herb	Mar-Jul(Aug)	4.2	S4	G4
Scutellaria bolanderi ssp. austromontana	southern mountains skullcap	Lamiaceae	perennial rhizomatous herb	Jun-Aug	1B.2	S3	G4T3
Sibaropsis hammittii	Hammitt's clay-cress	Brassicaceae	annual herb	Mar-Apr	1B.2	S2	G2
Sidalcea neomexicana	salt spring checkerbloom	Malvaceae	perennial herb	Mar-Jun	2B.2	S2	G4
Sphaerocarpos drewei	bottle liverwort	Sphaerocarpaceae	ephemeral liverwort		1B.1	S1	G1
Symphyotrichum defoliatum	San Bernardino aster	Asteraceae	perennial rhizomatous herb	Jul-Nov(Dec)	1B.2	S2	G2
Texosporium sancti-jacobi	woven-spored lichen	Caliciaceae	crustose lichen (terricolous)		3	S1	G3
Tortula californica	California screw-moss	Pottiaceae	moss		1B.2	S2S3	G2G3
Trichocoronis wrightii var. wrightii	Wright's trichocoronis	Asteraceae	annual herb	May-Sep	2B.1	S1	G4T3

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Questions and Comments

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