Appendix F

Biological Technical Report (September 2020)

BIOLOGICAL TECHNICAL REPORT

FOR

THE GREEN VALLEY PHASE II PROJECT

LOCATED IN THE CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA

Prepared For:

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September 30, 2020

INFORMATION SUMMARY

A. Report Date: September 30, 2020

B. Report Title: Biological Technical Report for the Green Valley Phase II Project, Located in the City of Perris, Riverside County, California

C. Project Site Location: The Project site is located in the City of Perris, Riverside County, California. The Project site is located west of Interstate 215, south of Case Road, east of Goetz Road, and north of Ethanac Road. It occurs within Section 5, Township 5 South, and Range 3 West, as depicted on the USGS Perris, California quadrangle. The Project site is located at latitude 33.450112° N and longitude -117.121382° W (center reading).

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G. Report Summary:

A biological study was performed for the proposed Green Valley Phase II Project located in the City of Perris, Riverside County, California. The Project would consist of development of multi-family and single-family residences, along with a school site, park sites, commercial sites, open space, road and other infrastructure necessary to support the development. This document provides the results of field studies performed to evaluate

the potential occurrence of biological resources and the requirements triggered by environmental laws and regulations. The approximately 582-acre site occurs within the Mead Valley Area Plan of the Western Riverside County Multiple-Species Habitat Conservation Plan (MSHCP), but outside of criteria cells and survey areas for criteria area plants, and amphibians, as well as outside of core and linkage areas.

The proposed Project occurs in the Narrow Endemic Plant Survey Area and the Burrowing Owl Survey Area. Habitat assessments and focused surveys were performed for special-status plants and animals, and to determine the presence/absence of federal and/or state jurisdictional waters and wetlands, including MSHCP riparian/riverine areas and vernal pools.

The proposed Project would also result in the loss of habitat for other special-status species, including MSHCP Covered Species. Impacts to Covered Species would be less than significant with consistency and participation with the MSHCP (including a per acre fee payment).

The proposed Project would not impact MSHCP riparian/riverine areas, or waters subject to the jurisdictions of the U.S. Army Corps of Engineers (Corps), Santa Ana Regional Water Quality Control Board (Regional Board), or the California Department of Fish and Wildlife (CDFW).

The proposed Project would be consistent with all applicable MSHCP policies, specifically pertaining to the Project's relationship to reserve assembly, *Section 6.1.2* (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), *Section 6.1.3* (Protection of Narrow Endemic Plant Species), *Section 6.1.4* (Guidelines Pertaining to the Urban/Wildlands Interface), and *Section 6.3.2* (Additional Survey Needs and Procedures). Through compliance with the MSHCP, the Plan would fully mitigate for potentially significant impacts under CEQA that would occur by the Project, including potential cumulative impacts.

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1.0 INTRODUCTION

1.1 Background and Scope of Work

This document provides the results of general biological surveys and focused biological surveys for the approximately 582-acre Green Valley Phase II Project (the Project) located in the City of Perris, Riverside County, California. This report identifies and evaluates impacts to biological resources associated specifically with the proposed Project in the context of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), the California Environmental Quality Act (CEQA), and State and Federal regulations such as the Endangered Species Act (ESA), Clean Water Act (CWA), and the California Fish and Game Code.

The scope of this report includes a discussion of existing conditions for the Project site, all methods employed regarding the general biological surveys and focused biological surveys, the documentation of botanical and wildlife resources identified (including special-status species), and an analysis of impacts to biological resources. Methods of the study include a review of relevant literature, field surveys, and a Geographical Information System (GIS)-based analysis of vegetation communities. As appropriate, this report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), the California Native Plant Society (CNPS), and other applicable agencies/organizations.

The field study focused on a number of primary objectives that would comply with CEQA and MSHCP requirements, including (1) general reconnaissance survey and vegetation mapping; (2) general biological surveys; (3) habitat assessments for special-status plant species (including species with applicable MSHCP survey requirements); (4) habitat assessments for special-status wildlife species (including species with applicable MSHCP survey requirements); (5) assessment for the presence of wildlife migration and colonial nursery sites; (6) assessments for MSHCP riparian/riverine areas and vernal pools; and (7) assessments for areas subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) jurisdiction pursuant to Section 404 of the Clean Water Act, and CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600–1616 of the California Fish and Game Code.

1.2 Project Location

The Project site comprises approximately 582 acres in the City of Perris, Riverside County California [Exhibit 1 – Regional Map]. The Project site occurs within Section 5, Township 5 south and Range 3 west of the U.S. Geological Survey (USGS) 7.5” quadrangle map Perris, California (dated 1967 and photorevised in 1979) [Exhibit 2 – Vicinity Map]. The Project site is generally bordered by Case Road to the north, Interstate 215 to the east, Ethanac Road to the south, and Goetz Road to the west.

1.3 Project Description

The Green Valley Phase II Project consists of multi-family and single-family residential development, along with a school site, park sites, commercial sites, open space, road and other infrastructure necessary to support the development.

For this report, the term *Project site* is defined as the area proposed for direct impact by the proposed Project and equaling approximately 582 acres [Exhibit 3 – Site Map]. The Project site is land composed of Assessor's Parcel Numbers (APNs): 327200013, 327200010, 327200011, 327200013, 327210013, 327210014, 327210015, 327210016, 330140015, 330140016, 330140017, 330140018, 330140019, 330150017, 330150018, 330150020, 330150008, 330150007, 330150006, 330150009, 330150010, 327220007, 327220008, 327220009, 327220010, 327220011, 327220027, and 327220017 and controlled by the applicant. For this document, we have assumed that all direct impacts would be permanent.

1.4 Relationship of the Project Site to the MSHCP

1.4.1 MSHCP Background

The Western Riverside County MSHCP is a comprehensive habitat conservation/planning program for Western Riverside County. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to special-status species and associated native habitats.

Through agreements with the U.S. Fish and Wildlife Service (USFWS) and CDFW, the MSHCP designates 146 special-status animal and plant species as Covered Species, of which the majority have no project-specific survey/conservation requirements. The MSHCP provides mitigation for project-specific impacts to these species for Projects that are compliant/consistent with MSHCP requirements, such that the impacts are reduced to below a level of significance pursuant to CEQA.

The Covered Species that are not yet adequately conserved have additional requirements in order for these species to ultimately be considered "adequately conserved". A number of these species have survey requirements based on a project's occurrence within a designated MSHCP survey area and/or based on the presence of suitable habitat. These include Narrow Endemic Plant Species (MSHCP *Volume I, Section 6.1.3*), as identified by the Narrow Endemic Plant Species Survey Areas (NEPSSA); Criteria Area Plant Species (MSHCP *Volume I, Section 6.3.2*) identified by the Criteria Area Plant Species Survey Areas (CAPSSA); animals species (burrowing owl, mammals, amphibians) identified by survey areas (MSHCP *Volume I, Section 6.3.2*); and species associated with riparian/riverine areas and vernal pool habitats, i.e., least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, and three species of listed fairy shrimp (MSHCP *Volume I, Section 6.1.2*). An additional 28 species (MSHCP *Volume I*, *Table 9.3*) not yet adequately conserved have species-specific objectives in order for

the species to become adequately conserved. However, these species do not have project-specific survey requirements.

The goal of the MSHCP is to have a total Conservation Area in excess of 500,000 acres, including approximately 347,000 acres on existing Public/Quasi-Public (PQP) Lands, and approximately 153,000 acres of Additional Reserve Lands targeted within the MSHCP Criteria Area. The MSHCP is divided into 16 separate Area Plans, each with its own conservation goals and objectives. Within each Area Plan, the Criteria Area is divided into Subunits, and further divided into Criteria Cells and Cell Groups (a group of criteria cells). Each Cell Group and ungrouped, independent Cell has designated "criteria" for the purpose of targeting additional conservation lands for acquisition. Projects located within the Criteria Area are subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process to determine if lands are targeted for inclusion in the MSHCP Reserve. In addition, all Projects located within the Criteria Area are subject to the Joint Project Review (JPR) process, where the Project is reviewed by the Regional Conservation Authority (RCA) to determine overall compliance/consistency with the biological requirements of the MSHCP.

1.4.2 Relationship of the Project Site to the MSHCP

The Project site is located within the Mead Valley Area Plan of the MSHCP but is not located within the MSHCP Criteria Area or the MSHCP Criteria Area Plant Species Survey Area (CAPSSA). Criteria Cells 3378 and 3467 abut the northwesterly edges of the Project site; no part of the Project site overlaps with the Criteria Cells. For background, the described conservation for Criteria Cell 3378 ranges from 30% to 40%, focusing in the northwestern portion of the cell, and conservation in Cell 3467 would be approximately 5% of the cell, focusing in the northwestern portion of the cell. However, the Project would not be subject to the Reserve Assembly requirements since is outside of the Criteria Cells.

The Project site is also not located within the MSHCP Mammal or Amphibian Survey Areas, or Core and Linkage areas; however, the Project site is located within the MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA) and the MSHCP Burrowing Owl Survey Area [Exhibit 4 – MSHCP Survey Areas]. Specifically, the Project site occurs in NEPSSA 3. Pursuant to the MSHCP, the following target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*).

Within the Project site, the MSHCP requires habitat assessments, and focused surveys within areas of suitable habitat. For locations with positive survey results, the MSHCP requires that 90 percent of those portions of the property that provide long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species have been met throughout the MSHCP. Findings of equivalency shall be made demonstrating that the 90-percent standard has been met, if applicable. If equivalency findings cannot be demonstrated, then "biologically equivalent or superior preservation" must be provided.

2.0 METHODOLOGY

In order to adequately identify biological resources in accordance with the requirements of CEQA, Glenn Lukos Associates (GLA) assembled biological data consisting of following main components:

- Evaluation of aquatic resources (including wetlands and riparian habitat) subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), CDFW, and MSHCP riparian/riverine areas and vernal pools;
- Performance of vegetation mapping for the Project site;
- Performance of habitat assessments, and site-specific biological surveys, to evaluate the presence/absence of special-status species in accordance with the requirements of CEQA and the MSHCP;
- Performance of a focused survey for rare plants; and
- Performance of a focused survey for burrowing owl.

The focus of the biological surveys was determined through initial site reconnaissance, a review of the CNDDB [CDFW 2018], CNPS 8th edition online inventory (CNPS 2018), Natural Resource Conservation Service soil data (NRCS 2018), MSHCP species and habitat maps and sensitive soil maps (Dudek 2003), other pertinent literature, and knowledge of the region. Site-specific general surveys within the Project site were conducted on foot for each target plant or animal species. Table 2-1 provides a summary list of survey dates, survey types and personnel.

Table 2-1. Summary of Biological Surveys for the Project Site

Survey Type	2018 Survey Dates	Biologist(s)
General Biological Surveys/Habitat Assessments	3/9, 4/16	DM
Evaluation for Riparian/Riverine Areas	3/9, 4/16	DM
Evaluation for Vernal and/or Seasonal Pools	3/9, 4/16	DM
Assessment for Federal and State Jurisdictional Waters	3/9, 4/16	DM
Focused Plant Surveys	3/9, 4/16, 5/10, 5/17, 5/24, 6/14	DM
Focused Burrowing Owl Surveys	6/26, 7/6, 7/17, 7/18, 7/26, 8/6, 8/7, 8/9, 8/10, 8/14	DS, JS

DM = David Moskovitz, JS = Jillian Stephens, DS = David Smith

Individual plants and wildlife species were evaluated in this report based on their "special-status." For this report, plants were considered "special-status" based on one or more of the following criteria:

- Listing through the Federal and/or State Endangered Species Act (ESA); and/or
- CNPS Rare Plant Inventory Rank 1A, 1B, 2A, 2B, 3, or 4.

Wildlife species were considered "special-status" based on one or more of the following criteria:

- Listing through the Federal and/or State ESA; and
- Designation by the State as a Species of Special Concern (SSC) or California Fully Protected (CFP) species.

Vegetation communities and habitats were considered "special-status" based on one or more of the following criteria:

- Global (G) and/or State (S) ranking of category 3 or less based on CDFW (see Section 3.2.2 below for further explanation); and
- Riparian/riverine habitat.

2.1 Botanical Resources

A site-specific survey program was designed to accurately document the botanical resources within the Project site, and consisted of five components: (1) a literature search; (2) preparation of a list of target special-status plant species and sensitive vegetation communities that could occur within the Project site; (3) general field reconnaissance survey(s); (4) vegetation mapping according to Holland (1986) when possible; and (5) habitat assessments and focused surveys for special-status plants (including those with MSHCP requirements).

2.1.1 Literature Search

Prior to conducting fieldwork, pertinent literature on the flora of the region was examined. A thorough archival review was conducted using available literature and other historical records. These resources included the following:

- California Native Plant Society, Rare Plant Program. 2018. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39) (CNPS 2018); and

- CNDDB for the USGS 7.5' quadrangle(s): Perris, Romoland, and surrounding quadrangles (CDFW 2018).

2.1.2 Vegetation Mapping

Vegetation communities within the Project site were mapped according to Holland (1986) when possible. The majority of the Project site does not meet the parameters of any natural vegetation classification system and was instead mapped as disturbed and/or ruderal. Plant communities were mapped in the field directly onto a 200-scale (1" = 200') aerial photograph. A vegetation map is included as Exhibit 5. Representative site photographs are included as Exhibit 6.

2.1.3 Special-Status Plant Species and Habitats Evaluated for the Project Site

A literature search was conducted to obtain a list of special-status plants with the potential to occur within the Project site. The CNDDB was initially consulted to determine well-known

occurrences of plants and habitats of special concern in the region. Other sources used to develop a list of target species for the survey program included the CNPS online inventory (2018) and the MSHCP (Dudek 2003).

The Project site is located within Narrow Endemic Plant Species Survey Area (NEPSSA). Pursuant to the MSHCP, the following target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): Munz's onion, San Diego ambrosia, many-stemmed dudleya, spreading navarretia, California Orcutt grass, and Wright's trichocoronis.

Based on this information, vegetation profiles and a list of target sensitive plant species and habitats that could occur within the Project site were developed and incorporated into a mapping and survey program to achieve the following goals: (1) characterize the vegetation associations and land use; (2) prepare a detailed floristic compendium; (3) identify the potential for any special-status plants that may occur within the Project site; and (4) prepare a map showing the distribution of any sensitive botanical resources associated with the Project site, if applicable.

2.1.4 Botanical Surveys

GLA biologist David Moskovitz visited the site on March 9, April 16, May 10, 17 and 24, and June 14, 2018 to conduct general and focused plant surveys. Surveys were conducted in accordance with accepted botanical survey guidelines (CDFG 2009, CNPS 2001, USFWS 2000). As applicable, surveys were conducted at appropriate times based on precipitation and flowering periods. An aerial photograph, a soil map, and/or a topographic map were used to determine the community types and other physical features that may support sensitive and uncommon taxa or communities within the Project site. Surveys were conducted by following meandering transects within target areas of suitable habitat. All plant species encountered during the field surveys were identified and recorded following the above-referenced guidelines adopted by CNPS (2010) and CDFW by Nelson (1984). A complete list of the plant species observed is provided in Appendix A. Scientific nomenclature and common names used in this report follow Baldwin et al. (2012) and Munz (1974).

2.2 Wildlife Resources

Wildlife species were evaluated and detected during the field survey(s) by sight, call, tracks, and scat. Site reconnaissance was conducted in such a manner as to allow inspection of the entire Project site by direct observation, including the use of binoculars. Observations of physical evidence and direct sightings of wildlife were recorded in field notes during the visit. A complete list of wildlife species observed within the Project site is provided in Appendix B. Scientific nomenclature and common names for vertebrate species referred to in this report follow the Complete List of Amphibian, Reptile, Bird, and Mammal Species in California (CDFG 2008), Standard Common and Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodilians 6th Edition, Collins and Taggert (2009) for amphibians and reptiles, and the American Ornithologists' Union Checklist 7th Edition (2009) for birds. The methodology (including any applicable survey protocols) utilized to conduct general surveys, habitat assessments, and/or focused surveys for special-status animals are included below.

2.2.1 General Surveys

Birds

During the general biological and reconnaissance survey within the Project site, birds were identified incidentally within each habitat type. Birds were detected by both direct observation and by vocalizations and were recorded in field notes.

Mammals

During general biological and reconnaissance survey within the Project site, mammals were identified incidentally within each habitat type. Mammals were detected both by direct observations and by the presence of diagnostic sign (i.e. tracks, burrows, scat, etc.).

Reptiles and Amphibians

During general biological and reconnaissance surveys within the Project site, reptiles and amphibians were identified incidentally during surveys within each habitat type. Habitats were examined for diagnostic reptile sign, which include shed skins, scat, tracks, snake prints, and lizard tail drag marks. All reptiles and amphibian species observed, as well as diagnostic sign, were recorded in field notes.

2.2.2 Special-Status Animal Species Evaluated for the Project Site

A literature search was conducted to obtain a list of special-status wildlife species with the potential to occur within the Project site. Species were evaluated based on two factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in vicinity of the Project site, (2) species survey areas as identified by the MSHCP for the Project site; and 3) any other special-status animals that are known to occur within the vicinity of the Project site, or for which potentially suitable habitat occurs on the Project site.

2.2.3 Habitat Assessment for Special Status Animal Species

GLA biologist Dave Moskovitz conducted habitat assessments for special-status animal species on March 9, April 16, May 10, May 17, May 24, and June 14, 2018. An aerial photograph, soil map and/or topographic map were used to determine the community types and other physical features that may support special-status and uncommon taxa within the Project site.

2.2.4 Focused Surveys for Special-Status Animals Species

Burrowing Owl

The Project site is located within the MSHCP survey area for the burrowing owl (*Athene cunicularia*). GLA biologists David Smith and Jillian Stephens conducted focused surveys for the burrowing owl for all suitable habitat areas within the Project site. Surveys were conducted in accordance with survey guidelines described in the 2006 MSHCP Burrowing Owl Survey

Instructions. The guidelines stipulate that four focused survey visits be conducted on separate dates between March 1 and August 31, with a maximum of 100 acres of suitable habitat to be surveyed per day by one biologist. Much of the Project site was determined to be unsuitable for burrowing owl due to the level of disturbance from prior grading and active farming. Based on the distribution of suitable burrows at the site, it was determined that the site contained between 200 and 300 acres of suitable habitat, requiring a minimum of 12 survey visits to survey up to three survey polygons. Focused surveys were conducted on ten separate days (June 26, July 6, 17, 18, and 26, and August 6, 7, 9, 10 and 14, 2018), with both biologists present on five of the days, for a total of 15 survey visits conducted between the two biologists.

The MSHCP Survey Instructions require that focused burrow surveys be conducted either prior to or concurrent with the first focused survey visits in order to map suitable burrows and concentrate the focused survey effort. Focused burrow surveys were conducted on June 26 and July 6 and 17, 2018.

The MSHCP Survey Instructions indicate that surveys are to be performed within a time window from either one hour before sunrise to two hours after sunrise, or two hours before sunset to one hour after sunset. However, the updated survey guidelines issued by CDFW in the 2012 Staff Report on Burrowing Owl Mitigation indicate that morning surveys should be conducted between civil twilight (sunrise) and 10:00 am, acknowledging that burrowing owls are active until beyond the "two hours after sunrise" that are identified by the MSHCP Survey Instructions and that are based on the older 1995 CDFW Staff Report on Burrowing Owl Mitigation. For the Project, GLA biologists conducted surveys that started around sunrise and that continued as late as 10:00 am for most of the visits.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Additionally, suitable burrowing owl habitat within the 150-meter buffer of the project boundary was scanned with binoculars. Transects were spaced between 22 feet and 65 feet apart, adjusting for vegetation height and density, in order to provide adequate visual coverage of the survey areas. At the start of each transect, and at least every 320 feet along transects, the survey area was scanned for burrowing owls using binoculars. All suitable burrows were inspected for diagnostic owl sign (e.g., pellets, prey remains, whitewash, feathers, bones, and/or decoration) in order to identify potentially occupied burrows. Exhibit 7 provides locations of suitable burrows mapped during the transect surveys. The surveys were conducted during weather that was conducive to observing owls outside their burrows and detecting burrowing owl sign and not during rain, high winds (> 20 mph), dense fog, or temperatures over 90 °F. Additionally, all work was performed more than five days after a rain event. Table 2-2 summarizes the burrowing owl survey visits. The results of the burrowing owl surveys are documented in Section 4.0 of this report.

Table 2-2. Summary of Burrowing Owl Surveys

Survey Date	Biologist(s)	Start/End Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover (%)
6/26/18	DS	0630/0950	57/75	0/1	Clear
7/6/18	DS	0530/0930	71/98	0/1	Clear
7/17/18	DS	0630/1000	64/83	0/5	Clear
7/18/18	DS, JS	0630/1000	70/76	4/4	Cloudy
7/26/18	DS, JS	0630/1000	72/88	0/5	Clear
8/6/18	DS, JS	0630/1000	63/86	0/0	Clear
8/7/18	DS, JS	0630/1000	72/91	0/8	Clear
8/9/18	DS, JS	0630/1000	72/90	4/5	Clear
8/10/18	JS	0700/1000	73/84	0/5	Clear
8/14/18	JS	0700/0930	66/80	0/3	Clear

DS = David Smith, JS = Jillian Stephens

2.3 Jurisdictional Evaluation

Prior to beginning the field evaluation, a 200-scale (1" = 200') color aerial photograph and the previously cited USGS topographic maps were examined to determine the locations of potential areas of Corps, Regional Board, and CDFW jurisdiction. Suspected jurisdictional areas were field checked for the presence of streams and/or wetland vegetation, soils and hydrology. Potential wetland habitats at the subject site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[1] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement).[2]

2.4 MSHCP Riparian/Riverine Areas and Vernal Pools

GLA surveyed the Project site for potential riparian/riverine areas and vernal pool/seasonal pool habitat, including areas with a potential to support fairy shrimp. *Volume I, Section 6.1.2* of the MSHCP describes the process through which protection of riparian/riverine areas and vernal pools would occur within the MSHCP Plan Area. The purpose is to ensure that the biological functions and values of these areas throughout the MSHCP Plan Area are maintained such that habitat values for species inside the MSHCP Conservation Area are maintained. The MSHCP requires that as projects are proposed within the overall Plan Area, the effect of those projects on riparian/riverine areas and vernal pools must be addressed.

The MSHCP defines riparian/riverine areas as *lands which contain Habitat dominated by trees, shrubs, persistent emergent mosses and lichens, which occur close to or which depend upon soils*

[1] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.
[2] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Version 2.0). Ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-06-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.

The MSHCP defines vernal pools as *seasonal wetlands that occur in depression areas that have wetlands indicators of all three parameters (soils, vegetation, and hydrology) during the wetter portion of the growing season but normally lack wetland indictors of hydrology and/or vegetation during the drier portion of the growing season.*

With the exception of wetlands created for the purpose of providing wetlands habitat or resulting from human actions to create open waters or from the alteration of natural stream courses, areas demonstrating characteristics as described above which are artificially created are not included in these definitions.

To assess the Project site for vernal/seasonal pools (including fairy shrimp habitat), GLA biologists evaluated the topography of the site, including whether the site contained depressional features/topography with the potential to become inundated; whether the site contained soils associated with vernal/seasonal pools; and whether the site supported plants that suggested areas of localized ponding. The assessment included a search for any artificial features that could exhibit fairy shrimp hydrology, including tire ruts, stock ponds, and other artificial depressions.

3.0 REGULATORY SETTING

The proposed Project is subject to state and federal laws and regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including: state- and federally-listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; special-status species which are not listed as threatened or endangered by the state or federal governments; and special-status vegetation communities.

3.1 Endangered Species Acts

3.1.1 California Endangered Species Act

California's Endangered Species Act (CESA) defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the

commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the Federal Endangered Species Act (FESA), CESA does not list invertebrate species.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Sections 1901 and 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

3.1.2 Federal Endangered Species Act

The FESA of 1973 defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a Federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

3.1.3 State and Federal Take Authorizations

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).
- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCP) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the

taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.

- Sections 2090-2097 of the CESA require that the state lead agency consult with CDFW on projects with potential impacts on state-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

3.1.4 Take Authorizations Pursuant to the MSHCP

The Western Riverside County MSHCP was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the federal and state wildlife agencies and participating entities. The MSHCP is a comprehensive habitat conservation-planning program for western Riverside County. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. As such, the MSHCP is intended to streamline review of individual projects with respect to the species and habitats addressed in the MSHCP, and to provide for an overall Conservation Area that would be of greater benefit to biological resources than would result from a piecemeal regulatory approach. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to sensitive species pursuant to Section 10(a) of the FESA.

Through agreements with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), the MSHCP designates 146 special-status animal and plant species that receive some level of coverage under the plan. Of the 146 "Covered Species" designated under the MSHCP, the majority of these species have no additional survey/conservation requirements. In addition, through project participation with the MSHCP, the MSHCP provides mitigation for project-specific impacts to Covered Species so that the impacts would be reduced to below a level of significance pursuant to CEQA. As noted above, project-specific survey requirements exist for species designated as "Covered Species not yet adequately conserved". These include Narrow Endemic Plant Species, as identified by the Narrow Endemic Plant Species Survey Areas (NEPSSA); Criteria Area Plant Species identified by the Criteria Area Species Survey Areas (CASSA); animals species as identified by survey area; and plant and animal species associated with riparian/riverine areas and vernal pool habitats (*Volume I, Section 6.1.2* of the MSHCP document).

For projects that have a federal nexus such as through federal Clean Water Act Section 404 permitting, take authorization for federally listed covered species would occur under Section 7 (not Section 10) of FESA and that USFWS would provide a MSHCP consistency review of the proposed project, resulting in a biological opinion. The biological opinion would require no more compensation than what is required to be consistent with the MSHCP.

3.2 California Environmental Quality Act

3.2.1 CEQA Guidelines Section 15380

CEQA requires evaluation of a project's impacts on biological resources and provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts. Sections 5.1.1 and 5.2.2 below set forth these thresholds and guidelines. Furthermore, pursuant to the CEQA Guidelines Section 15380, CEQA provides protection for non-listed species that could potentially meet the criteria for state listing. For plants, CDFW recognizes that plants on Lists 1A, 1B, or 2 of the CNPS *Inventory of Rare and Endangered Plants in California* may meet the criteria for listing and should be considered under CEQA. CDFW also recommends protection of plants, which are regionally important, such as locally rare species, disjunct populations of more common plants, or plants CNPS Ranked 3 or 4.

3.2.2 Special-Status Plants, Wildlife and Vegetation Communities Evaluated Under CEQA

Federally Designated Special-Status Species

Within recent years, the USFWS instituted changes in the listing status of candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. Former C2 species (for which the USFWS had insufficient evidence to warrant listing) and C3 species (either extinct, no longer a valid taxon or more abundant than was formerly believed) are no longer considered as candidate species. Therefore, these species are no longer maintained in list form by the USFWS, nor are they formally protected. This term is employed in this document but carries no official protections. All references to federally protected species in this report (whether listed, proposed for listing, or candidate) include the most current published status or candidate category to which each species has been assigned by USFWS.

For this report the following acronyms are used for federal special-status species:

- FE Federally listed as Endangered
- FT Federally listed as Threatened
- FPE Federally proposed for listing as Endangered
- FPT Federally proposed for listing as Threatened
- FC Federal Candidate Species (former C1 species)
- FSC Federal Species of Concern (former C2 species)

State-Designated Special-Status Species

Some mammals and birds are protected by the state as Fully Protected (SFP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California SSC are designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's CNDDB project. Informally listed taxa are not protected but warrant

consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

For this report the following acronyms are used for State special-status species:

- SE State-listed as Endangered
- ST State-listed as Threatened
- SR State-listed as Rare
- SCE State Candidate for listing as Endangered
- SCT State Candidate for listing as Threatened
- SFP State Fully Protected
- SP State Protected
- SSC State Species of Special Concern

CNDDB Global/State Rankings

The CNDDB provides global and state rankings for species and communities based on a system developed by The Nature Conservancy to measure rarity of a species. The ranking provides a shorthand formula about how rare a species/community is and is based on the best information available from multiple sources, including state and federal listings, and other groups that recognize species as sensitive (e.g., Bureau of Land Management, Audubon Society, etc.). State and global rankings are used to prioritize conservation and protection efforts so that the rarest species/communities receive immediate attention. In both cases, the lower ranking (i.e., G1 or S1) indicates extreme rarity. Rare species are given a ranking from 1 to 3. Species with a ranking of 4 or 5 is considered to be common. If the exact global/state ranking is undetermined, a range is generally provided. For example, a global ranking of "G1G3" indicates that a species/community global rarity is between G1 and G3. If the animal being considered is a subspecies of a broader species, a "T" ranking is attached to the global ranking. The following are descriptions of global and state rankings:

Global Rankings

- G1 – Critically imperiled globally because of extreme rarity (5 or fewer occurrences), or because of some factor(s) making it especially vulnerable to extinction.
- G2 – Imperiled globally because of rarity (6-20 occurrences), or because of some other factor(s) making it very vulnerable to extinction throughout its range.
- G3 – Either very rare and local throughout its range (21 to 100 occurrences) or found locally (even abundantly at some of its locations) in a restricted range (e.g., a physiographic region), or because of some other factor(s) making it vulnerable to extinction throughout its range.
- G4 – Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- G5 – Common, widespread and abundant.

State Rankings

- S1 – Extremely rare; typically 5 or fewer known occurrences in the state; or only a few remaining individuals; may be especially vulnerable to extirpation.
- S2 – Very rare; typically between 6 and 20 known occurrences; may be susceptible to becoming extirpated.
- S3 – Rare to uncommon; typically 21 to 50 known occurrences; S3 ranked species are not yet susceptible to becoming extirpated in the state but may be if additional populations are destroyed.
- S4 - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5 - Common, widespread, and abundant in the state.

California Native Plant Society

The CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. The CNPS's Eighth Edition of the *California Native Plant Society's Inventory of Rare and Endangered Plants of California* separates plants of interest into five ranks. CNPS has compiled an inventory comprised of the information focusing on geographic distribution and qualitative characterization of Rare, Threatened, or Endangered vascular plant species of California. The list serves as the candidate list for listing as threatened and endangered by CDFW. CNPS has developed five categories of rarity that are summarized in Table 3-1.

Table 3-1. CNPS Ranks 1, 2, 3, & 4, and Threat Code Extensions

CNPS Rank	Comments
Rank 1A – Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere	Thought to be extinct in California based on a lack of observation or detection for many years.
Rank 1B – Plants Rare, Threatened, or Endangered in California and Elsewhere	Species, which are generally rare throughout their range that are also judged to be vulnerable to other threats such as declining habitat.
Rank 2A – Plants presumed Extirpated in California, But Common Elsewhere	Species that are presumed extinct in California but more common outside of California
Rank 2B – Plants Rare, Threatened or Endangered in California, But More Common Elsewhere	Species that are rare in California but more common outside of California
Rank 3 – Plants About Which More Information Is Needed (A Review List)	Species that are thought to be rare or in decline but CNPS lacks the information needed to assign to the appropriate list. In most instances, the extent of surveys for these species is not sufficient to allow CNPS to accurately assess whether these species should be assigned to a specific rank. In addition, many of the Rank 3 species have associated taxonomic problems such that the validity of their current taxonomy is unclear.

Rank 4 – Plants of Limited Distribution (A Watch List)	Species that are currently thought to be limited in distribution or range whose vulnerability or susceptibility to threat is currently low. In some cases, as noted above for Rank 3 species, CNPS lacks survey data to accurately determine status in California. Many species have been placed on Rank 4 in previous editions of the "Inventory" and have been removed as survey data has indicated that the species are more common than previously thought. CNPS recommends that species currently included on this list should be monitored to ensure that future substantial declines are minimized.
Extension	**Comments**
.1 – Seriously endangered in California	Species with over 80% of occurrences threatened and/or have a high degree and immediacy of threat.
.2 – Fairly endangered in California	Species with 20-80% of occurrences threatened.
.3 – Not very endangered in California	Species with <20% of occurrences threatened or with no current threats known.

3.3 Jurisdictional Waters

3.3.1 Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a), pursuant to the *Navigable Waters Protection Rule*[3] (NWPR), as:

(a) Jurisdictional waters. For purposes of the Clean Water Act, 33 U.S.C. 1251 *et seq.* and its implementing regulations, subject to the exclusions in paragraph (b) of this section, the term ''waters of the United States'' means:

(1) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;
(2) Tributaries;
(3) Lakes and ponds, and impoundments of jurisdictional waters; and
(4) Adjacent wetlands.

(b) Non-jurisdictional waters. The following are not ''waters of the United States'':

(1) Waters or water features that are
not identified in paragraph (a)(1), (2), (3), or (4) of this section;
(2) Groundwater, including groundwater drained through subsurface drainage systems;
(3) Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;
(4) Diffuse stormwater run-off and directional sheet flow over upland;
(5) Ditches that are not waters identified in paragraph (a)(1) or (2) of this section, and those portions of ditches constructed in waters identified in paragraph (a)(4) of this section that do not satisfy the conditions of paragraph (c)(1) of this section;

[3] U.S. Environmental Protection Agency & Department of Defense. 2020. Federal Register / Vol. 85, No. 77 / Tuesday, April 21, 2020 / Rules and Regulations.

(6) Prior converted cropland;
(7) Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease;
(8) Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in non-jurisdictional waters, so long as those artificial lakes and ponds are not impoundments of jurisdictional waters that meet the conditions of paragraph (c)(6) of this section;
(9) Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;
(10) Stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater runoff;
(11) Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention, and infiltration basins and ponds, constructed or excavated in upland or in non-jurisdictional waters; and
(12) Waste treatment systems.

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(e) as:

> *...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.*

1. Wetland Definition Pursuant to Section 404 of the Clean Water Act

The term “wetlands” (a subset of “waters of the United States”) is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published the Wetland Manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the Wetland Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the Wetland Manual and Arid West Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- More than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the Arid West 2016 Regional Wetland Plant List[4],[5]);

[4] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.
[5] Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-

- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and

- Whereas the Wetland Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

3.3.2 Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[6] and waters of the State. Waters of the United States are defined above in Section II.A and waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

Section 401 of the CWA requires certification for any federal permit or license authorizing impacts to waters of the U.S. (i.e., waters that are within federal jurisdiction), such as Section 404 of the CWA and Section 10 of the Safe Rivers and Harbors Act, to ensure that the impacts do not violate state water quality standards. When a project could impact waters outside of federal jurisdiction, the Regional Board has the authority under the Porter-Cologne Water Quality Control Act to issue Waste Discharge Requirements (WDRs) to ensure that impacts do not violate state water quality standards. Clean Water Act Section 401 Water Quality Certifications, WDRs, and waivers of WDRs are also referred to as orders or permits.

1. State Wetland Definition

The State Board Wetland Definition and Procedures define an area as wetland as follows: *An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2)*

30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.

[6] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S. (California Code or Regulations title 23, section 3831(w)). This regulation has remained in effect despite subsequent changes to the federal definition. Therefore, waters of the state includes features that have been determined by the U.S. Environmental Protection Agency (U.S. EPA) or the U.S. Army Corps of Engineers (Corps) to be "waters of the U.S." in an approved jurisdictional determination; "waters of the U.S." identified in an aquatic resource report verified by the Corps upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of "waters of the U.S." or any current or historic federal regulation defining "waters of the U.S." under the federal Clean Water Act.

the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.

The following wetlands are waters of the State:

1. *Natural wetlands;*
2. *Wetlands created by modification of a surface water of the state;*[7] *and*
3. *Artificial wetlands*[8] *that meet any of the following criteria:*

a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
b. Specifically identified in a water quality control plan as a wetland or other water of the state;
c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):

i. Industrial or municipal wastewater treatment or disposal,
ii. Settling of sediment,
iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
iv. Treatment of surface waters,
v. Agricultural crop irrigation or stock watering,
vi. Fire suppression,
vii. Industrial processing or cooling,
viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water, or
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[9]

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[7] "Created by modification of a surface water of the state" means that the wetland that is being evaluated was created by modifying an area that was a surface water of the state at the time of such modification. It does not include a wetland that is created in a location where a water of the state had existed historically, but had already been completely eliminated at some time prior to the creation of the wetland. The wetland being evaluated does not become a water of the state due solely to a diversion of water from a different water of the state.

[8] Artificial wetlands are wetlands that result from human activity.

[9] Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not waters of the state. If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state.

3.3.3 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as "a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators."

It is important to note that the Fish and Game Code defines fish and wildlife to include: all wild animals, birds, plants, fish, amphibians, invertebrates, reptiles, and related ecological communities including the habitat upon which they depend for continued viability (FGC Division 5, Chapter 1, section 45 and Division 2, Chapter 1 section 711.2(a) respectively). Furthermore, Division 2, Chapter 5, Article 6, Section 1600 et seq. of the California Fish and Game Code does not limit jurisdiction to areas defined by specific flow events, seasonal changes in water flow, or presence/absence of vegetation types or communities.

4.0 RESULTS

This section provides the results of general biological surveys, vegetation mapping, habitat assessments and focused surveys for special-status plants and animals, an assessment for MSHCP riparian/riverine areas and vernal pools, and a jurisdictional evaluation for Waters of the United States (including wetlands) subject to the jurisdiction of the Corps and Regional Board, waters of the State subject to the jurisdiction of the Regional Board only, and streams (including riparian vegetation) and lakes subject to the jurisdiction of CDFW.

4.1 Existing Conditions

The Project site consists of multiple parcels of agricultural and previously disturbed land. Topography within the Project site is generally flat, with elevations ranging from 1,410 to 1,430 feet

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for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board's authority to issue or waive waste discharge requirements or take other actions as applicable.

above mean sea level (AMSL). The Project site occurs within the historic watershed of the San Jacinto River, with the San Jacinto River occurring offsite to the west of the Project site. This portion of the River adjacent to the Project site is channelized; therefore, the Project site does not receive overflow from the river during storm events. This greatly reduces the potential for special-status plants, such as spreading navarretia, to get transported onto the Project site.

The Natural Resource Conservation Service (NRCS) identifies the following soil types (series) as occurring (currently or historically) within the Project site [Exhibit 8 – Soils Map]: Buchenau loam, slightly saline-alkali; Domino silt loam; Domino silt loam, saline-alkali, Domino silt loam, strongly saline-alkali, Exeter sandy loam; Greenfield sandy loam; Madera fine sandy loam; Porterville clay; Willows silty clay; Willows silty clay, saline alkali; Willows silty clay, strongly saline-alkali; Willows silty clay, deep, saline-alkali; and Willows silty clay, deep, strongly saline-alkali. Many of these soils are conducive for rare plants including spreading navarretia California Orcutt grass, and Wright's trichocoronis. Refer to Section 4.4 for the analysis for rare plants to occur on the Project site.

4.2 Vegetation Mapping

The Project site supports the following four vegetation/land use types: Agriculture, Developed, Disturbed, and Ornamental with Agriculture and Disturbed lands comprising 98-percent of the site. Table 4-1 provides a summary of the vegetation/land use types and their corresponding acreages. Descriptions of each vegetation type follow the table. A Vegetation Map is attached as Exhibit 5. Photographs depicting the Project site are shown in Exhibit 6.

Table 4-1. Summary of Vegetation/Land Use Types for the Project Site

VEGETATION/ LAND USE TYPE	ACREAGE
Agriculture	332.8
Disturbed	237.6
Developed	10.9
Ornamental	0.4
Total	**581.7**

Agriculture
The Project site supports 332.8 acres of agricultural land which covers the majority of the site. These areas include multiple fields that are routinely crop-rotated. When a field is not in use, it is disked for weed abatement. Dominant plants in these areas include non-native, ruderal species such as Russian thistle (*Salsola tragus*), black mustard (*Brassica nigra*), ripgut brome (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), tumbling pigweed (*Amaranthus albus*), and London rocket (*Sisymbrium irio*).

Disturbed
Disturbed lands cover 237.6 acres within the Project site. These areas include a combination of the following land use types: 1) unpaved access roads that are regularly trafficked; 2) areas with

ongoing development activities; 3) stockpile areas that are generally devoid of vegetation; and 4) areas of bare ground with sparse, ruderal vegetation.

Developed
Developed land, primarily consisting of paved roads, accounts for 10.9 acres within the Project site. These areas are devoid of vegetation.

Ornamental
The Project site supports an approximately 0.4-acre patch of ornamental trees near the central part of the site. This area is predominantly vegetated with gum trees (*Eucalyptus* spp.).

4.3 Special-Status Vegetation Communities

The CNDDB identifies the following six special-status vegetation communities for the Perris, Romoland, and surrounding quadrangle maps: Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Interior Basalt Flow Vernal Pool, Southern Riparian Scrub, Southern Sycamore Alder Riparian Woodland, and Valley Needlegrass Grassland. The Project site does not contain any special-status vegetation types, including those identified by the CNDDB.

4.4 Special-Status Plants

Table 4-2 provides a list of special-status plants evaluated for the Project site through general biological surveys and habitat assessments. Species were evaluated based on the following factors: 1) species identified by the CNDDB and CNPS as occurring (either currently or historically) on or in the vicinity of the Project site, 2) applicable MSHCP survey areas, and 3) any other special-status plants that are known to occur within the vicinity of the Project site, or for which potentially suitable habitat occurs within the site.

Table 4-2. Special-Status Plants Evaluated for the Project Site

Species Name	Status	Habitat Requirements	Occurrence
Alkali marsh aster *Almutaster pauciflorus*	Federal: None State: None CNPS: Rank 2B.2	Meadows and seeps	Does not occur due to a lack of suitable habitat. Low-lying meadows and/or mesic conditions are absent.
Bottle liverwort *Sphaerocarpos drewei*	Federal: None State: None CNPS: Rank 1B.1	Openings in chaparral and coastal scrub.	Does not occur due to a lack of suitable habitat. Native upland vegetation is absent.
Buxbaum's sedge *Carex buxbaumii*	Federal: None State: None CNPS: Rank 4.2	Bogs and fens, Meadows and seeps (mesic) and marshes and swamps.	Does not occur due to a lack of mesic conditions and associated vegetation.
California ayenia *Ayenia compacta*	Federal: None State: None CNPS: Rank 2B.3	Rocky soils in Mojavean desert scrub and Sonoran desert scrub.	Does not occur due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence
California Orcutt grass *Orcuttia californica*	Federal: FE State: SE CNPS: List 1B.1	Vernal pools; alkaline soils and southern basaltic claypan.	Does not occur due to a lack of suitable habitat. Although the site supports alkaline soils, mesic conditions are absent. Refer to Section 4.4.1 for details.
California screw moss *Tortula californica*	Federal: None State: None CNPS: Rank 1B.2	Sandy soil in chenopod scrub, and valley and foothill grassland.	Does not occur due to a lack of suitable habitat. Site lacks natural vegetation communities including chenopod scrub and grassland.
Campbell's liverwort *Geothallus tuberosus*	Federal: None State: None CNPS: Rank 1B.1	Occurs on soil in coastal scrub (mesic) and vernal pools.	Does not occur due to a lack of suitable habitat. Site lacks mesic conditions, sage scrub, and vernal pools.
Catalina mariposa lily *Calochortus catalinae*	Federal: None State: None CNPS: Rank 4.2	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland.	Does not occur due to a lack of suitable habitat. Site lacks intact natural vegetation communities.
Chaparral ragwort *Senecio aphanactis*	Federal: None State: None CNPS: Rank 2B.2	Chaparral, cismontane woodland, coastal scrub. Sometimes associated with alkaline soils.	Does not occur due to a lack of suitable habitat. Although the project site supports alkaline soils, it lacks natural vegetation communities and is too disturbed.
Chaparral sand-verbena *Abronia villosa* var. *aurita*	Federal: None State: None CNPS: List 1B.1	Sandy soils in chaparral, coastal sage scrub.	Does not occur due to a lack of suitable habitat. Soils on site are unsuitable and scrub communities are absent. Confirmed absent.
Coulter's goldfields *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: None CNPS: List 1B.1	Playas, vernal pools, marshes and swamps (coastal salt).	Does not occur due to a lack of suitable habitat. Project site lacks the necessary mesic conditions for this species.
Coulter's matilija poppy *Romneya coulteri*	Federal: None State: None CNPS: Rank 4.2	Often in burns in chaparral and coastal scrub.	Confirmed absent.

Species Name	Status	Habitat Requirements	Occurrence
Davidson's saltscale *Atriplex serenana* var. *davidsonii*	Federal: None State: None CNPS: List 1B.2	Alkaline soils in coastal sage scrub, coastal bluff scrub.	Does not occur due to a lack of suitable habitat. The alkaline soils have been mechanically disturbed by agricultural operations for decades.
Douglas' fiddleneck *Amsinckia douglasiana*	Federal: None State: None CNPS: Rank 4.2	Dry Monterey shale. Cismontane woodland, valley and foothill grassland.	Does not occur due to a lack of suitable habitat. Soils unsuitable as well as vegetation.
Engelmann oak *Quercus engelmannii*	Federal: None State: None CNPS: Rank 4.2	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland.	Confirmed absent.
Fish's milkwort *Polygala cornuta* var. *fishae*	Federal: None State: None CNPS: Rank 4.3	Chaparral, cismontane woodland, riparian woodland.	Does not occur due to a lack of suitable habitat. Hydrology and vegetation needed is absent from the site.
Graceful tarplant *Holocarpha virgata* ssp. *elongata*	Federal: None State: None CNPS: Rank 4.2	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland.	Confirmed absent.
Hammitt's clay-cress *Sibaropsis hammittii*	Federal: None State: None CNPS: Rank 1B.2	Clay soils in openings of chaparral, and in valley and foothill grasslands.	Does not occur due to a lack of suitable habitat. Site is far too disturbed and does not support the natural vegetation the species is associated with.
Heart-leaved pitcher sage *Lepechinia cardiophylla*	Federal: None State: None CNPS: Rank 1B.2	Closed-cone coniferous forest, chaparral, and cismontane woodland.	Does not occur due to a lack of suitable habitat.
Intermediate mariposa-lily *Calochortus weedii* var. *intermedius*	Federal: None State: None CNPS: Rank 1B.2	Rocky soils in chaparral, coastal sage scrub, valley and foothill grassland.	Does not occur due to a lack of suitable habitat. Site is too disturbed and lacks suitable soils.
Intermediate monardella *Monardella hypoleuca ssp.intermedia*	Federal: None State: None CNPS: Rank 1B.3	Usually in the understory of chaparral, cismontane woodland, and lower montane coniferous forest (sometimes)	Does not occur due to a lack of suitable habitat.
Jaeger's milk-vetch *Astragalus pachypus* var. *jaegeri*	Federal: None State: None CNPS: List 1B.1	Sandy or rocky soils in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland.	Does not occur due to a lack of suitable habitat. Site is far too disturbed and lacks natural vegetation.
Lemon lily *Lilium parryi*	Federal: None State: None CNPS: Rank 1B.2	Mesic soils in lower montane coniferous forest, meadows and seeps, riparian forest, and upper montane coniferous forest.	Does not occur due to a lack of suitable habitat. Project site is outside the range of this species.

Species Name	Status	Habitat Requirements	Occurrence
Little mousetail *Myosurus minimus* ssp. *apus*	Federal: None State: None CNPS: List 3.1	Valley and foothill grassland, vernal pools (alkaline soils).	Does not occur due to a lack of suitable habitat. Although the Project site supports alkaline soils, it lacks mesic/vernal pool conditions needed by the species.
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*	Federal: None State: None CNPS: List 1B.2	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands	Does not occur due to a lack of suitable habitat. Site lacks needed soils and natural vegetation communities.
Many-stemmed dudleya *Dudleya multicaulis*	Federal: None State: None CNPS: List 1B.2	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	Does not occur. The Project site lacks the natural vegetation communities this species is associated with. Refer to Section 4.4.1 for details.
Mesa horkelia *Horkelia cuneata* var. *puberula*	Federal: None State: None CNPS: Rank 1B.1	Sandy or gravelly soils in chaparral (maritime), cismontane woodland, and coastal scrub.	Does not occur due to a lack of suitable habitat.
Marsh sandwort *Arenaria paludicola*	Federal: FE State: SE CNPS: List 1B.1	Bogs and fens, freshwater marshes and swamps.	Does not occur due to a lack of suitable habitat. Site lacks the necessary hydrology.
Mud nama *Nama stenocarpum*	Federal: None State: None CNPS: List 2B.2	Marshes and swamps	Does not occur due to a lack of suitable habitat. Site lacks the necessary hydrology.
Munz's onion *Allium munzii*	Federal: FE State: ST CNPS: List 1B.1	Clay soils in chaparral, coastal sage scrub, and valley and foothill grasslands	Does not occur due to a lack of suitable habitat. Project site is far too disturbed and does not support natural vegetation communities. Refer to Section 4.4.1 for details.
Nevin's barberry *Berberis nevinii*	Federal: FE State: SE CNPS: List 1B.1	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub.	Confirmed absent. Species was not judged to have potential due to site conditions, but the focused survey confirmed its absence.
Orcutt's brodiaea *Brodiaea orcuttii*	Federal: None State: None CNPS: Rank 1B.1	Mesic, clay soils (sometimes serpentinite) in chaparral, meadows and seeps, valley and foothill grassland, vernal pools,	Does not occur due to a lack of suitable habitat. Project site

Species Name	Status	Habitat Requirements	Occurrence
		closed-cone coniferous forest, cismontane woodland.	lacks mesic conditions and is too disturbed.
Palmer's grapplinghook *Harpagonella palmeri*	Federal: None State: None CNPS: List 4.2	Chaparral, coastal sage scrub, valley and foothill grassland. Occurring in clay soils.	Does not occur due to a lack of suitable habitat. Project site lacks natural vegetation communities necessary for this species.
Palomar monkeyflower *Erythranthe (Mimulus) diffusa*	Federal: None State: None CNPS: Rank 4.3	Sandy or gravelly soils in chaparral, lower montane coniferous forest.	Does not occur due to a lack of suitable habitat.
Paniculate tarplant *Deinandra paniculata*	Federal: None State: None CNPS: Rank 4.2	Usually in vernally mesic, sometimes sandy soils in coastal scrub, valley and foothill grassland, and vernal pools.	Confirmed absent during focused surveys.
Parish's brittlescale *Atriplex parishii*	Federal: None State: None CNPS: List 1B.1	Chenopod scrub, playas, vernal pools.	Does not occur due to a lack of suitable habitat. Mesic conditions are absent and the site is far too disturbed due to many decades of agricultural operations.
Parish's meadowfoam *Limnanthes alba* ssp. *parishii*	Federal: None State: SE CNPS: Rank 1B.2	Vernally mesic soils in lower montane coniferous forests, meadows and seeps, and vernal pools.	Does not occur due to a lack of suitable habitat. Project site occurs outside the range of this species.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CNPS: List 1B.1	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	Does not occur due to a lack of suitable habitat.
Payson's jewelflower *Caulanthus simulans*	Federal: None State: None CNPS: List 4.2	Sandy or granitic soils in chaparral and coastal scrub.	Does not occur due to a lack of suitable habitat.
Peninsular spineflower *Chorizanthe leptotheca*	Federal: None State: None CNPS: Rank 4.2	Alluvial fan, granitic. Chaparral, coastal scrub, lower montane coniferous forest.	Does not occur due to a lack of suitable habitat.
Plummer's mariposa lily *Calochortus plummerae*	Federal: None State: None CNPS: List 4.2	Granitic, rock soils within chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, valley and foothill grassland.	Does not occur due to a lack of suitable habitat.
Prostrate vernal pool navarretia *Navarretia prostrata*	Federal: None State: None CNPS: Rank 1B.1	Coastal sage scrub, valley and foothill grassland (alkaline), vernal pools. Occurring in mesic soils.	Does not occur due to a lack of suitable habitat. Although the Project site supports alkaline soils, it lacks mesic/vernal pool conditions and has been under active

Species Name	Status	Habitat Requirements	Occurrence
			agriculture for many decades.
Rainbow manzanita *Arctostaphylos rainbowensis*	Federal: None State: None CNPS: Rank 1B.1	Chaparral	Does not occur due to a lack of suitable habitat.
Robinson's pepper grass *Lepidium virginicum* var. *robinsonii*	Federal: None State: None CNPS: List 4.3	Chaparral, coastal sage scrub	Does not occur due to a lack of suitable habitat. The site lacks natural vegetation communities that may support this species.
Salt marsh bird's-beak *Chloropyron maritimum* ssp. *maritimum*	Federal: FE State: SE CNPS: List 1B.2	Coastal dune, coastal salt marshes and swamps.	Does not occur due to a lack of suitable habitat. Mesic conditions are absent from the Project site.
Salt Spring checkerbloom *Sidalcea neomexicana*	Federal: None State: None CNPS: List 2B.2	Mesic, alkaline soils in chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, and playas.	Does not occur due to a lack of suitable habitat. Although the Project site supports alkaline soils, it lacks natural vegetation conditions needed for this species.
San Bernardino aster *Symphyotrichum defoliatum*	Federal: None State: None CNPS: List 1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic).	Does not occur due to a lack of suitable habitat. Site lacks the necessary hydrology and natural vegetation.
San Diego ambrosia *Ambrosia pumila*	Federal: FE State: None CNPS: List 1B.1	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools. Often in disturbed habitats. Soils include Garretson gravelly fine sandy loams when in association with floodplains, and on Las Posas loam in close proximity to silty, alkaline soils of the Willows series.	Confirmed absent. Soils on the Project site are suitable and the species is tolerant of certain types of disturbances. Refer to Section 4.4.1 for details.
San Diego button-celery *Eryngium aristulatum* var. *parishii*	Federal: FE State: SE CNPS: Rank 1B.1	Mesic soils in vernal pools, valley and foothill grasslands, coastal sage scrub.	Does not occur due to a lack of suitable habitat. Project site lacks mesic conditions and lacks natural vegetation communities.
San Diego sagewort *Artemisia palmeri*	Federal: None State: None CNPS: Rank 4.2	Sandy and mesic soils in chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland.	Does not occur due to a lack of suitable habitat. Project site lacks mesic conditions and lacks natural

Species Name	Status	Habitat Requirements	Occurrence
			vegetation communities.
San Jacinto Valley crownscale *Atriplex coronata* var. *notatior*	Federal: FE State: None CNPS: List 1B.1	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools.	Does not occur due to a lack of suitable habitat. The Project site lacks the mesic conditions needed by this species. This species can occur in active agricultural lands but where those lands are connected to the active floodplain dynamics. The Project site does not receive overflows from the San Jacinto River.
San Miguel savory *Clinopodium chandleri*	Federal: None State: None CNPS: Rank 1B.2	Rocky, gabbroic, or metavolcanic soils in chaparral, cismontane woodland, coastal sage scrub, riparian woodland, valley and foothill grassland.	Does not occur due to a lack of suitable habitat. Soils are not appropriate and the site does not support natural vegetation communities.
Santa Lucia dwarf rush *Juncus luciensis*	Federal: None State: None CNPS: Rank 1B.2	Chaparral, Great Basin scrub, lower montane coniferous forest, meadows and seeps, and vernal pools.	Does not occur due to a lack of suitable habitat. Site lacks the hydrology and vegetation conditions needed by the species.
Santa Rosa Basalt brodiaea *Brodiaea santarosae*	Federal: None State: None CNPS: Rank 1B.2	Basaltic soils in valley and foothill grassland.	Does not occur due to a lack of suitable habitat. Suitable soils are absent.
Slender-horned spineflower *Dodecahema leptoceras*	Federal: FE State: SE CNPS: List 1B.1	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	Does not occur due to a lack of suitable habitat. Site lacks alluvial hydrology/dynamic.
Small-flowered microseris *Microseris douglasii* ssp. *platycarpha*	Federal: None State: None CNPS: Rank 4.2	Cismontane woodland, coastal sage scrub, valley and foothill grassland, vernal pools. Occurring on clay soils.	Does not occur due to a lack of suitable habitat. Site lacks mesic conditions and natural vegetation communities.
Small-flowered morning-glory *Convolvulus simulans*	Federal: None State: None CNPS: Rank 4.2	Chaparral (openings), coastal sage scrub, valley and foothill grassland. Occurring on clay soils and serpentinite seeps.	Does not occur due to a lack of suitable habitat. Project site lacks the natural vegetation communities needed by this species and is far too disturbed by

Species Name	Status	Habitat Requirements	Occurrence
			agricultural operations for decades.
Smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CNPS: List 1B.1	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grasslands, disturbed habitats.	Confirmed absent. This species can tolerate agricultural activities.
Snake cholla *Cylindropuntia californica* var. *californica*	Federal: None State: None CNPS: Rank 1B.1	Chaparral, coastal sage scrub.	Confirmed absent but not anticipated.
South coast saltscale *Atriplex pacifica*	Federal: None State: None CNPS: Rank 1B.2	Coastal bluff scrub, coastal dunes, coastal sage scrub, playas.	Does not occur due to a lack of suitable habitat. Site lacks natural vegetation communities and is far too disturbed for this species.
Southern California black walnut *Juglans californica*	Federal: None State: None CNPS: Rank 4.2	Chaparral, cismontane woodland, coastal sage scrub, alluvial surfaces.	Confirmed absent but not anticipated.
Southern mountains skullcap *Scutellaria bolanderi* ssp. *austromontana*	Federal: None State: None CNPS: Rank 1B.2	Mesic soils in chaparral, cismontane woodland, lower montane coniferous forest.	Does not occur due to a lack of suitable habitat.
Southwestern spiny rush *Juncus acutus* ssp. *leopoldii*	Federal: None State: None CNPS: Rank 4.2	Coastal dunes (mesic), meadows and seeps (alkaline seeps), and marshes and swamps (coastal salt).	Does not occur due to a lack of suitable habitat. Site lacks the necessary hydrology and vegetation conditions needed by the species.
Spreading navarretia *Navarretia fossalis*	Federal: FT State: None CNPS: List 1B.1	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater). Occurs in saline-alkaline soils.	Confirmed absent. Project site lacks mesic/vernal pool conditions. Refer to Section 4.4.1 for details.
Tecate cypress *Hesperocyparis forbesii*	Federal: None State: None CNPS: Rank 1B.1	Closed-cone coniferous forest, chaparral.	Confirmed absent however not anticipated.
Thread-leaved brodiaea *Brodiaea filifolia*	Federal: FT State: SE CNPS: List 1B.1	Clay soils in chaparral (openings), cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools.	Does not occur due to a lack of suitable habitat. Ongoing agricultural activities have removed potential for this species.
Vernal barley *Hordeum intercedens*	Federal: None State: None CNPS: Rank 3.2	Coastal dunes, coastal sage scrub, valley and foothill grassland (saline flats and depressions), vernal pools.	Does not occur due to a lack of suitable habitat. Mesic conditions absent.

Species Name	Status	Habitat Requirements	Occurrence
White rabbit-tobacco *Pseudognaphalium leucocephalum*	Federal: None State: None CNPS: Rank 2B.2	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland.	Does not occur due to a lack of suitable habitat.
Wiggins' cryptantha *Cryptantha wigginsii*	Federal: None State: None CNPS: Rank 1B.2	Often on clay soils in coastal scrub.	Does not occur due to a lack of suitable habitat. Site lacks sage scrub and any other natural vegetation conditions.
Woven-spored lichen *Texosporium sancti-jacobi*	Federal: None State: None CNPS: Rank 3	On soil, small mammal pellets, dead twigs, and on *Selaginella* spp. Chaparral (openings).	Does not occur due to a lack of suitable habitat. Project site lacks natural vegetation communities.
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	Federal: None State: None CNPS: List 2B.1	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	Confirmed absent. Site supports alkaline soils but lacks mesic/vernal pool conditions. Refer to Section 4.4.1 for details.
Yucaipa onion *Allium marvinii*	Federal: None State: None CNPS: Rank 1B.2	Chaparral (clay, openings).	Does not occur due to a lack of suitable habitat. Site scrub vegetation and is far too disturbed for this species.

STATUS

Federal
FE – Federally Endangered
FT – Federally Threatened
FC – Federal Candidate

State
SE – State Endangered
ST – State Threatened

CNPS
Rank 1A – Plants presumed extirpated in California and either rare or extinct elsewhere.
Rank 1B – Plants rare, threatened, or endangered in California and elsewhere.
Rank 2A – Plants presumed extirpated in California, but common elsewhere.
Rank 2B – Plants rare, threatened, or endangered in California, but more common elsewhere.
Rank 3 – Plants about which more information is needed (a review list).
Rank 4 – Plants of limited distribution (a watch list).

Threat Code extension
.1 – Seriously endangered in California (over 80% occurrences threatened)
.2 – Fairly endangered in California (20-80% occurrences threatened)
.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)

OCCURRENCE

- Does not occur – The site does not contain habitat for the species and/or the site does not occur within the geographic range of the species.

- Confirmed absent – The site contains suitable habitat for the species, but the species has been confirmed absent through focused surveys.
- Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.
- Potential to occur – The species has a potential to occur based on suitable habitat, however its presence/absence has not been confirmed.
- Confirmed present – The species was detected onsite incidentally or through focused surveys

4.5 Special-Status Animals

The following special-status animals were detected at or adjacent to the Project site: American peregrine falcon (*Falco peregrinus*), bald eagle (*Haliaeetus leucocephalus*), burrowing owl (*Athene cunicularia*), least Bell's vireo (*Vireo bellii pusillus*), loggerhead shrike (*Lanius ludovicianus*), white-tailed kite (*Elanus leucurus*), and San Diego black-tailed jackrabbit (*Lepus californicus bennettii*).

Table 4-3 provides a list of special-status animals evaluated for the Project site through general biological surveys, habitat assessments, and focused surveys. Species were evaluated based on the following factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the Project site, 2) applicable MSHCP survey areas, and 3) any other special-status animals that are known to occur within the vicinity of the Project site, for which potentially suitable habitat occurs on the site.

Table 4-3. Special-Status Animals Evaluated for the Project Site

Species Name	Status	Habitat Requirements	Occurrence
Invertebrates			
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: FE State: None	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	Does not occur due to a lack of suitable habitat. Refer to Section 4.10 for details.
San Diego fairy shrimp *Branchinecta sandiegonensis*	Federal: FE State: None	Seasonal vernal pools	Does not occur due to a lack of suitable habitat. Refer to Section 4.10 for details.
Vernal pool fairy shrimp *Branchinecta lynchi*	Federal: FT State: None	Seasonal vernal pools	Does not occur due to a lack of suitable habitat. Refer to Section 4.10 for details.
Amphibians			
Western spadefoot *Spea hammondii*	Federal: None State: SSC	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Does not occur due to a lack of suitable habitat. Site lacks the necessary hydrology.
Reptiles			
California glossy snake *Arizona elegans occidentalis*	Federal: None State: SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral.	Does not occur due to a lack of suitable habitat. Site lacks natural vegetation communities.

Species Name	Status	Habitat Requirements	Occurrence
California legless lizard *Anniella sp. 1*	Federal: None State: SSC	Common in the Coast Ranges from the vicinity of Antioch, Contra Costa Co. south to the Mexican border. Range includes the floor of the San Joaquin Valley from San Joaquin Co. south, the west slope of the southern Sierra, the Tehachapi Mountains west of the desert, and the mountains of southern California. Common in several habitats but especially in coastal dune, valley-foothill, chaparral, and coastal scrub types.	Does not occur due to a lack of suitable habitat. Site lacks natural vegetation and is too disturbed from agricultural operations.
Coast horned lizard *Phrynosoma blainvillii*	Federal: None State: SSC	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	Does not occur due to a lack of suitable habitat. Site lacks natural conditions.
Coast patch-nosed snake *Salvadora hexalepis virgultea*	Federal: None State: SSC	Occurs in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas.	Does not occur due to a lack of suitable habitat. Site lacks natural conditions.
Orange-throated whiptail *Aspidoscelis hyperythra*	Federal: None State: SSC	Coastal sage scrub, chaparral, non-native grassland, oak woodland, and juniper woodland.	Does not occur due to a lack of suitable habitat. Lacks natural conditions.
Red-diamond rattlesnake *Crotalus ruber*	Federal: None State: SSC	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Does not occur due to a lack of suitable habitat. Lacks natural conditions.
San Diego banded gecko *Coleonyx variegatus abbotti*	Federal: None State: SSC	Primarily a desert species, but also occurs in cismontane chaparral, desert scrub, and open sand dunes.	Does not occur due to a lack of suitable habitat. Lacks natural conditions.
Two-striped garter snake *Thamnophis hammondii*	Federal: None State: SSC	Aquatic snake typically associated with wetland habitats such as streams, creeks, and pools.	Does not occur due to a lack of suitable habitat. Lacks necessary hydrology and natural conditions.

Species Name	Status	Habitat Requirements	Occurrence
Western pond turtle *Emys marmorata*	Federal: None State: SSC	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons. Abundant basking sites and cover necessary, including logs, rocks, submerged vegetation, and undercut banks.	Does not occur due to a lack of suitable habitat. Lacks the needed hydrology.
Birds			
Bald eagle (nesting & wintering) *Haliaeetus leucocephalus*	Federal: Delisted State: SE, FP	Primarily in or near seacoasts, rivers, swamps, and large lakes. Perching sites consist of large trees or snags with heavy limbs or broken tops.	Observed foraging on adjacent property. Does not breed on the Project site due to a lack of suitable habitat.
Burrowing owl *Athene cunicularia*	Federal: None State: SSC	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and underpasses.	One unpaired burrowing owl was observed on one occasion at a burrow in the Watson Ditch outside of the Project footprint. See additional discussion below.
California black rail *Laterallus jamaicensis coturniculus*	Federal: None State: ST, FP	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation.	Does not occur due to a lack of suitable habitat.
Coastal cactus wren *Campylorhynchus brunneicapillus sandiegensis*	Federal: None State: SSC	Occurs almost exclusively in cactus (cholla and prickly pear) dominated coastal sage scrub.	Does not occur due to a lack of suitable habitat.
Coastal California gnatcatcher *Polioptila californica californica*	Federal: FT State: SSC	Low elevation coastal sage scrub and coastal bluff scrub.	Does not occur due to a lack of suitable habitat.
Golden eagle *Aquila chrysaetos*	Federal: None State: FP	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Low potential to forage on site. Does not breed on site due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence
Least Bell's vireo *Vireo bellii pusillus*	Federal: FE State: SE	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Detected adjacent to the Project site. Does not occur on the Project site due to lack of suitable habitat. See additional discussion below.
Loggerhead shrike *Lanius ludovicianus*	Federal: None State: SSC	Forages over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs.	Observed foraging on site. Low potential to breed on site.
Long-eared owl *Asio otus*	Federal: None State: SSC	Riparian habitats are required by the long-eared owl, but it also uses live-oak thickets and other dense stands of trees.	Does not occur due to a lack of suitable habitat.
Northern harrier (nesting) *Circus cyaneus*	Federal: None State: SSC	A variety of habitats, including open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands.	Does not occur. Does not breed on site due to a lack of suitable habitat.
American peregrine falcon (nesting) *Falco peregrinus anatum*	Federal: Delisted State: Delisted, FP	Breeding habitat consists of high cliffs, tall buildings, and bridges along the coast and inland. Foraging habitat primarily includes open areas near wetlands, marshes, and adjacent urban landscapes.	Observed foraging. Does not breed on site due to a lack of suitable habitat.
Short-eared owl (nesting) *Asio flammeus*	Federal: None State: SSC	Open country, including prairie, meadows, tundra, moorlands, marshes, savanna, and open woodland. Nests on the ground.	Does not breed on site due to a lack of suitable habitat.
Southwestern willow flycatcher *Empidonax traillii extimus*	Federal: FE State: SE	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	Does not occur due to a lack of suitable habitat. Refer to Section 4.10 for details.
Swainson's hawk (nesting) *Buteo swainsoni*	Federal: None State: ST, SSC	Summer in wide open spaces of the American West. Nest in grasslands, but can use sage flats and agricultural lands. Nests are placed in lone trees.	Project site is outside the breeding range of this species.

Species Name	Status	Habitat Requirements	Occurrence
Tricolored blackbird *Agelaius tricolor*	Federal: None State: SE, SSC	Breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or agricultural cropland.	Low potential to occur for foraging. Does not breed on site due to a lack of suitable habitat.
Western snowy plover (nesting) *Charadrius alexandrinus nivosus*	Federal: FT State: SSC	Sandy or gravelly beaches along the coast, estuarine salt ponds, alkali lakes, and at the Salton Sea.	Does not occur due to a lack of suitable habitat.
Western yellow-billed cuckoo *Coccyzus americanus occidentalis*	Federal: FT State: SE	Dense, wide riparian woodlands with well-developed understories.	Does not occur due to a lack of suitable habitat. Refer to Section 4.10 for details.
White-tailed kite *Elanus leucurus*	Federal: None State: FP	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Observed foraging on site. Detected nesting nearby. Low potential to breed on site.
Yellow warbler *Setophaga petechia*	Federal: None State: SSC	Breed in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, forages in woodland, forest, and shrub habitats.	Does not occur due to a lack of suitable habitat.
Yellow-breasted chat *Icteria virens*	Federal: None State: SSC	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Does not occur due to a lack of suitable habitat.
Yellow-headed blackbird (nesting) *Xanthocephalus xanthocephalus*	Federal: None State: SSC	Breed and roost in freshwater wetlands with dense, emergent vegetation such as cattails. Often forage in fields, typically wintering in large, open agricultural areas.	Does not breed on site due to a lack of suitable habitat.
Mammals			
American badger *Taxidea taxus*	Federal: None State: SSC	Most abundant in drier open stages of most scrub, forest, and herbaceous habitats, with friable soils.	Does not occur due to a lack of suitable habitat.
Big free-tailed bat *Nyctinomops macrotis*	Federal: None State: SSC WBWG: MH	Roost mainly in crevices and rocks in cliff situations; also utilize buildings, caves, and tree cavities.	Does not occur due to a lack of suitable habitat. Potential for roosting in nonnative trees on site.

Species Name	Status	Habitat Requirements	Occurrence
California leaf-nosed bat *Macrotus californicus*	Federal: None State: SSC WBWG: H	Roosts in caves, mines, and buildings.	Does not occur due to a lack of suitable habitat.
Dulzura pocket mouse *Chaetodipus califronicus femoralis*	Federal: None State: SSC	Coastal scrub, grassland, and chaparral, especially at grass-chaparral edges	Does not occur due to a lack of suitable habitat.
Fringed myotis *Myotis thysanodes*	Federal: None State: None WBWG: H	Oak and pinyon woodlands. Roosts in caves, mines, and buildings.	Does not occur due to a lack of suitable habitat.
Jacumba pocket mouse *Perognathus longimembris internationalis*	Federal: None State: SSC	Arid plains and desert-like country. Grassland, alluvial sage scrub, and coastal sage scrub.	Does not occur due to a lack of suitable habitat.
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	Federal: None State: SSC	Fine, sandy soils in coastal sage scrub and grasslands.	Does not occur due to a lack of suitable habitat.
Mexican long-tongued bat *Choeronycteris mexicana*	Federal: None State: SSC WBWG: H	Variety of habitats ranging from desert, montane, riparian, to pinyon-juniper habitats. Found roosting in desert canyons, deep caves, mines, or rock crevicies. Can use abandoned buildings.	Does not occur due to a lack of suitable habitat.
Pallid bat *Antrozous pallidus*	Federal: None State: SSC WBWG: H	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	Does not occur due to a lack of suitable habitat.
Pocketed free-tailed bat *Nyctinomops femorosaccus*	Federal: None State: SSC WBWG: M	Rocky areas with high cliffs in pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian.	Low potential for roosting in non-native trees.
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: FE State: SSC	Typically found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and floodplains, and along washes with nearby sage scrub.	Does not occur due to a lack of suitable habitat.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	Federal: None State: SSC	Occupies a variety of habitats, but is most common among shortgrass habitats. Also occurs in sage scrub, but needs open habitats.	Confirmed present.

Species Name	Status	Habitat Requirements	Occurrence
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: SSC	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Does not occur due to a lack of suitable habitat.
Southern grasshopper mouse *Onychomys torridus ramona*	Federal: None State: SSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	Does not occur due to a lack of suitable habitat.
Spotted bat *Euderma maculatum*	Federal: None State: SSC WBWG: H	Arid or ponderosa pine forests and marshlands. Roost in small cracks in cliffs and stony outcrops.	Does not occur.
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: FE State: ST	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Not expected to occur due to limited habitat.
Townsend's big-eared bat *Corynorhinus townsendii*	Federal: None State: SSC WBWG: H	Coniferous forests and woodlands, deciduous riparian woodland, semi-desert and montane shrublands.	Does not occur due to a lack of suitable habitat.
Western red bat *Lasiurus blossevillii*	Federal: None State: SSC WBWG: H	Prefers riparian areas dominated by walnuts, oaks, willows, cottonwoods, and sycamores where they roost in broad-leaved trees.	Does not occur due to a lack of suitable habitat.
Western mastiff bat *Eumops perotis californicus*	Federal: None State: SSC WBWG: H	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Low potential for roosting in the non-native trees on site.
Western yellow bat *Lasiurus xanthinus*	Federal: None State: SSC WBWG: H	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Does not occur due to a lack of suitable habitat.

STATUS

Federal	**State**
FE – Federally Endangered	SE – State Endangered
FT – Federally Threatened	ST – State Threatened
FPT – Federally Proposed Threatened	SC– State Candidate
FC – Federal Candidate	CFP – California Fully-Protected Species
BGEPA– Bald and Golden Eagle Protection Act	SSC – Species of Special Concern
BCC – Birds of Conservation Concern	

Western Bat Working Group (WBWG)
H – High Priority
LM – Low-Medium Priority
M – Medium Priority
MH – Medium-High Priority

OCCURRENCE

- Does not occur – The site does not contain habitat for the species and/or the site does not occur within the geographic range of the species.
- Confirmed absent – The site contains suitable habitat for the species, but the species has been confirmed absent through focused surveys.
- Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.
- Potential to occur – The species has a potential to occur based on suitable habitat, however its presence/absence has not been confirmed.
- Confirmed present – The species was detected onsite incidentally or through focused surveys

4.5.1 Special-Status Wildlife Species Observed within the Project Site

Birds

American Peregrine Falcon (*Falco peregrinus*) – The American peregrine falcon is designated as a California Fully Protected Species by CDFW and is a covered species under the MSHCP without additional survey or conservation requirements. American peregrine falcons forage in a variety of habitats including grasslands, meadows, coastlines and wetlands. Breeding habitat consists of high cliffs, tall buildings, and bridges along the coast and inland.

GLA biologists observed one American peregrine falcon foraging on-site during a biological survey. The Project site supports approximately potential foraging habitat for the peregrine falcon (disturbed/agriculture); however, the Project site does not provide suitable nesting and/or breeding habitat for this species.

Bald Eagle (*Haliaeetus leucocephalus*) – The bald eagle is designated as a state endangered species when nesting, and is a federally delisted species. Within Southern California they are most often recorded at large deep inland bodies of water and are considered a winter resident (Garrett and Dunn 1981). In winter, bald eagles often congregate at specific wintering sites that are generally close to open water and that offer good perch trees and night roosts. The bald eagle often concentrates in large numbers on the wintering grounds. The winter habitat suitability is defined by the food availability, the presence of roost sites that provide protection from

inclement weather and absence of human disturbance although bald eagles will tolerate some human activity in areas of high prey availability. The perching habitat during the wintering season is characterized by the presence of tall trees located adjacent to foraging areas (Buehler 2000).

GLA biologists observed one bald eagle on site during general and focused biological surveys. While the Project site does not provide suitable foraging or breeding habitat for the bald eagle, the adjacent Eastern Municipal Water District (EMWD) facility contains open water basins where the bald eagle likely forages. The bald eagle was observed throughout the eastern portion of the Project site, in close proximity to the water basins.

Burrowing Owl (*Athene cunicularia*) – The burrowing owl is designated as a CDFW Species of Special Concern. The burrowing owl is a covered species not adequately conserved under the MSHCP, which means that projects located within the burrowing owl survey area may have to evaluate avoidance measures if burrowing owls are present. The burrowing owl occurs in shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), prairies, coastal dunes, desert floors, and some artificial, open areas as a year-long resident (Haug, *et al.* 1993). They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. As a critical habitat feature need, they require the use of rodent or other burrows for roosting and nesting cover.

GLA biologists observed one burrowing owl along the Watson Ditch (off site, within the 500-foot visual survey area buffer) on four separate visits during the focused owl surveys (July 26 and August 6, 7 and 9, 2018) [Exhibit 7 – Burrowing Owl Survey Results Map]. However, breeding owls were not confirmed within or adjacent to the Project site. Several pellets, whitewash droppings, and feathers were detected at the occupied burrow entrance, which is located outside the Project site, in the southern bank of the Watson Ditch. The owl was also observed perched on the ground within the Project site, and because the Watson Ditch consists of a narrow feature bordered to the north and south by the Project site, portions of the Project site would have been used for foraging by the owl. The Project site supports California ground squirrel (*Otospermophilus beecheyi*) burrows in both disturbed areas and agricultural lands. These areas account for approximately 200 acres of burrowing owl habitat primarily along the perimeters of the northern agriculture fields and in the southeastern disturbed area; however, none of the burrows within the Project site displayed any indication of occupancy [Exhibit 7].

Least Bell's Vireo (*Vireo bellii pusillus*) – The least Bell's vireo (LBV) is a State- and Federally-listed endangered species. It occurs in dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest, which does not occur on the site.

GLA biologists heard LBV vocalizing off site in the adjacent riparian habitat within Watson Ditch (approximately 200-250 north of the Project site) and within basins located further north and west of the Project site within the San Jacinto River. However, the Project site does not contain suitable habitat for LBV.

Loggerhead shrike (*Lanius ludovicianus*) – The loggerhead shrike is designated as a CDFW Species of Special Concern when nesting and a covered species under the MSHCP without additional survey or conservation requirements. The loggerhead shrike is known to forage over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs (Unitt 1984; Yosef 1996).

GLA biologists observed a loggerhead shrike during a biological survey. The species was observed foraging in the northwestern disturbed area, north of the Watson Ditch [Exhibit 3 – Site Map]. The Project site supports potential foraging habitat for the loggerhead shrike (disturbed/agriculture), as well as approximately 0.4 acre of low potential breeding habitat within the Eucalyptus trees associated with the ornamental area [Exhibit 5 – Vegetation Map].

White-tailed kite (*Elanus leucurus*) – The white-tailed kite is designated as a California Fully Protected Species by CDFW and is a covered species under the MSHCP without additional survey or conservation requirements. As a covered species, the MSHCP allows for the loss of habitat for white-tailed kites; however, the MSHCP does not allow for the direct take of Fully Protected Species, including the white-tailed kite. The white-tailed kite inhabits low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Riparian areas adjacent to open areas are used for nesting (Dunk 1995). Substantial groves of dense, broad-leafed deciduous trees are used for nesting and roosting (Brown and Amadon 1968).

GLA biologists observed one white-tailed kite foraging on site. The white-tailed kite was nesting in the adjacent off-site riparian habitat, northwest of the Project site, associated with the San Jacinto River. The Project site supports potential foraging habitat for the white-tailed kite (disturbed/agriculture). The Project site also supports approximately 0.4 acre of low potential nesting habitat within the Eucalyptus trees associated with the ornamental area [Exhibit 5 – Vegetation Map].

Mammals

San Diego Black-Tailed Jackrabbit (*Lepus californicus bennettii*) – The San Diego black-tailed jackrabbit is designated as a CDFW Species of Special Concern and is a covered species under the MSHCP without additional survey or conservation requirements. The black-tailed-jackrabbit occupies many diverse habitats, but primarily is found in arid regions supporting short-grass habitats. Jackrabbits typically are not found in high grass or dense brush where it is difficult for them to locomote, and the openness of open scrub habitat probably is preferred over dense chaparral. Black-tailed jackrabbits are found in most areas that support annual grassland, Riversidean sage scrub, alluvial fan sage scrub, Great Basin sagebrush, chaparral, disturbed habitat, and agriculture. Black-tailed-jackrabbits typically do not burrow but take shelter at the base of shrubs in shallow depressions called forms.

One individual was detected on one occasion during a biological survey in the northwestern disturbed area, north of Watson Ditch. The Project site supports potentially suitable habitat for

the black-tailed jackrabbit (disturbed/agriculture). As previously stated, this species is covered under the MSHCP.

4.5.2 Special-Status Wildlife Species not Observed but with a Potential to Occur at the Project Site

Birds

Golden Eagle (*Aquila chrysaetos*) – The golden eagle is designated as a California Fully Protected Species and is considered a sensitive species when nesting or wintering. Within Southern California, the species prefers grasslands, brushlands (coastal sage scrub and sparse chaparral), deserts, oak savannas, open coniferous forests, and montane valleys (Garrett and Dunn 1981). It uses rolling foothills and mountain terrain, wide arid plateaus deeply cut by streams and canyons, open mountain slopes, and cliffs and rock outcrops. The species requires a large expanse for foraging and suitable nest sites in the form of cliffs or large trees. Nesting is primarily restricted to rugged, mountainous country (Garrett and Dunn 1981). Approximately 500 breeding pairs are estimated to nest in California. They are mostly resident, but may move downslope for the winter, or upslope after the breeding season.

The Project site supports low quality foraging habitat for the golden eagle (disturbed/agriculture). The Project site does not provide suitable nesting or breeding habitat for this species. The golden eagle was not detected during biological surveys.

Northern Harrier (*Circus cyaneus*) - The northern harrier is designated as a CDFW Species of Special Concern for nesting and is a covered species under the MSHCP without additional survey or conservation requirements. The northern harrier frequents open wetlands, wet and lightly grazed pastures, old fields, dry uplands, upland prairies, mesic grasslands, drained marshlands, croplands, shrub-steppe, meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands and is seldom found in wooded areas (Bent 1937; and Bildstein 1996). In general, it prefers saltwater marshes, wet meadows, sloughs, and bogs for its nesting and foraging habitat and if these are absent, it hunts open fields and is frequently observed hunting over agricultural areas (Call 1978).

The Project site supports low quality foraging habitat for the northern harrier (disturbed/agriculture). The Project site does not provide suitable nesting or breeding habitat for this species. The northern harrier was not detected during biological surveys.

Tri-colored Blackbird (*Agelaius tricolor*) – The tri-colored blackbird is listed as a Candidate for Endangered status by the state and CDFW Species of Special Concern.[10] It is also a covered species under the MSHCP. Tri-colored blackbird breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or agricultural cropland.

[10] The Fish and Game Commission voted to list the tri-colored blackbird as Threatened on April 19, 2018. The official Notice of Findings is pending."

The Project site and its environs do not support suitable nesting habitat for this species; however, tri-colored blackbird has low potential to forage in active agricultural areas within the Project site. The tri-colored blackbird was not detected during biological surveys.

4.6 Raptor Use

The Project site provides low to moderate foraging habitat with disturbed and agriculture land uses, as well as suitable breeding habitat within the ornamental trees for a number of raptor species, including special-status raptors.

Southern California holds a diversity of birds of prey (raptors), and many of these species are in decline. For most of the declining species, foraging requirements include extensive open, undisturbed, or lightly disturbed areas, especially grasslands. This type of habitat has declined severely in the region, affecting many species, but especially raptors. A few species, such as Red-tailed Hawk (*Buteo jamaicensis*) and American Kestrel (*Falco sparverius*), are somewhat adaptable to low-level human disturbance and can be readily observed adjacent to neighborhoods and other types of development. These species still require appropriate foraging habitat and low levels of disturbance in vicinity of nesting sites.

Many of the raptors that would be expected to forage and nest within western Riverside are fully covered species under the MSHCP with the MSHCP providing the necessary conservation of both foraging and nesting habitats. Some common raptor species (e.g., American kestrel and Red-tailed Hawk) are not covered by the MSHCP but are expected to be conserved with implementation of the Plan due to the parallel habitat needs with those raptors covered under the Plan. It is important to understand that the MSHCP does not provide MBTA and Fish and Game Code take for raptors covered under the Plan.

Appendix B (faunal compendium) provides a list of the hawks and falcons detected over the course of the field studies. These species include red-tailed hawk, American kestrel, American peregrine falcon, bald eagle, white-tailed kite, barn owl (*Tyto alba*) and burrowing owl (refer to Section 4.5.1). The Project site also includes a 0.4-acre patch of ornamental Eucalyptus trees where a red-tailed hawk nest was observed.

As described in section 4.5.2 above, golden eagle and northern harrier may also be present in a foraging role, although these species were not observed during biological surveys. The Project site provides foraging habitat for all of these species in the form of insects, spiders, lizards, snakes, small mammals, and other birds; however, the site does not provide suitable nesting and/or breeding habitat for these species. White-tailed kite has low potential to nest in the ornamental Eucalyptus trees; however, this species was not observed nesting on site during biological surveys.

4.7 Nesting Birds

The Project site contains ground cover that provides suitable habitat for nesting native birds. Mortality of native birds (including eggs) is prohibited under the California Fish and Game Code.[11]

Common bird species observed on the Project site included California quail (*Callipepla californica*), mourning dove (*Zenaida macroura*), rock pigeon (*Columba livia*), Say's phoebe (*Sayornis saya*), Cassin's kingbird (*Tyrranis vociferans*), pacific-slope flycatcher (*Empidonax difficilis*), American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), California scrub jay (*Aphelocoma californica*), American kestrel, barn swallow (*Hirundo rustica*), cliff swallow (*Hirundo pyrrhonota*), northern mocking bird (*Mimus polyglottos*), European starling (*Sturnus vulgaris*), lark sparrow (*Chondestes grammacus*), western meadowlark (*Sturnella neglecta*), Brewer's blackbird (*Euphagus cyanocephalus*), red-winged blackbird (*Agelaius phoeniceus*), house finch (Carpodacus mexicanus), lesser goldfinch (*Carduelis psaltria*), American goldfinch (*Spinus tristis*), house sparrow (*Passer domesticus*) and horned lark (*Eremophila alpestris*).

Birds anticipated to nest on the Project site are mostly ground-nesting birds associated with disturbed habitats, and could potentially include horned lark, mourning dove, lark sparrow, and killdeer (*Charadrius vociferus*).

4.8 Critical Habitat

The Project site is located within USFWS-designated Critical Habitat for San Jacinto Valley crownscale and spreading navarretia [Exhibit 9 – Critical Habitat Map]. The Critical Habitat is mapped primarily along the San Jacinto River and extends into the Project site to include portions of land within the northern and central portions of the Project sited. It should be noted that both the San Jacinto Valley crownscale and spreading navarretia were confirmed absent from the Project site and are not expected occur due to lack of suitable habitat.

4.9 Jurisdictional Evaluation

The Project site does not contain any jurisdictional features, including those features that would fall under the jurisdiction of the Corps, CDFW, or the Regional Board.

Two features that would be potentially regulated by the Corps, CDFW, and/or Regional Board occur off site and adjacent to the Project site. These features include the Watson Ditch and Line A (including the evacuation channel) [Exhibit 3 – Site Map]; however, the Project site does not encompass any of these potentially regulated features.

[11] Sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

4.10 MSHCP Riparian/Riverine Areas and Vernal Pools

The Project site does not contain any riparian/riverine areas or vernal pools pursuant to Section 6.1.2 or the MSHCP. As discussed above, the Watson Ditch and Line A (including the evacuation channel) occur outside of the Project site (Exhibit 3). No vernal pools were observed at the site, nor any ponding areas with the potential to be vernal pools, nor any depression features with the potential to pond and exhibit vernal pool characteristics. Although the majority of the Project site supports underlying soils (Domino and Willows) associated with vernal pools, playas, and other alkaline habitat types, the level of disturbance at the site has rendered it unsuitable to support vernal pools under current conditions. The southwestern portion of the Project site is part of an active grading operation, and prior to that contained a nursery. The majority of the remainder of the Project site is either actively farmed or contains fallow fields that are regularly disked. Any potential for ponding that could develop vernal pool characteristics does not establish due to ongoing operations. Other portions of the property are covered with debris and materials stockpiles, including manure, concrete, and old debris from prior nursery operations, and do not have the potential to support vernal pools.

The Project site does not contain ephemeral ponds with the potential to support listed fairy shrimp, including the Riverside fairy shrimp (*Streptocephalus woottonii*). This conclusion was based on the field visits, during which time the site was checked carefully for ponding and low-lying areas, including areas that showed indirect signs of ponding, such as silt deposits, water deposits, and species of plants that need ponding for some portion of their growing period.

The entire Project site was checked for signs of water flow and sediment transport that may occur over a prolonged period of time or during and shortly after storm events. No signs of either are present and there are no areas supporting riparian vegetation. Watson Ditch, Line A Channel and the newly constructed Evacuation Channel are off-site but adjacent to the Project site (refer to Exhibit 5).

The Project site does not have the potential to support least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo due to a lack of riparian habitat, although as noted above least Bell's vireo was heard vocalizing adjacent to the Project site within the Watson Ditch and further north and west within basins that are adjacent to the San Jacinto River.

4.11 Wildlife Linkages/ Corridors and Nursery Sites

Habitat linkages are areas which provide a communication between two or more other habitat areas which are often larger or superior in quality to the linkage. Such linkage sites can be quite small or constricted, but may can be vital to the long-term health of connected habitats. Linkage values are often addressed in terms of "gene flow" between populations, with movement taking potentially many generations.

Corridors are similar to linkages but provide specific opportunities for individual animals to disperse or migrate between areas, generally extensive but otherwise partially or wholly separated regions. Adequate cover and tolerably low levels of disturbance are common

requirements for corridors. Habitat in corridors may be quite different than that in the connected areas, but if used by the wildlife species of interest, the corridor will still function as desired.

Wildlife nurseries are sites where wildlife concentrate for hatching and/or raising young, such as rookeries, spawning areas, and bat colonies. Nurseries can be important to both special-status species as well as commonly occurring species.

The Project site has been maintained and farmed for decades, resulting in an anthropogenically disturbed habitat area. The site is surrounded by vehicular roads and highway. The Project site does not occur within an existing or proposed Core, Linkage, or Constrained Linkage as identified by the MSHCP. Although the Project site may provide for the local movement of wildlife, including small and medium-sized mammals, the Project site is not part of a significant regional wildlife movement corridor, as identified by the MSHCP.

5.0 IMPACT ANALYSIS

The following discussion examines the potential impacts to plant and wildlife resources that would occur as a result of development of the proposed Project. Impacts (or effects) can occur in two forms, direct and indirect. Direct impacts are considered to be those that involve the loss, modification or disturbance of plant communities, which in turn, directly affect the flora and fauna of those habitats. Direct impacts also include the destruction of individual plants or animals, which may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and population stability.

Indirect impacts pertain to those impacts that result in a change to the physical environment, but which is not immediately related to a project. Indirect (or secondary) impacts are those that are reasonably foreseeable and caused by a project but occur at a different time or place. Indirect impacts can occur at the urban/wildland interface of projects, to biological resources located downstream from projects, and other offsite areas where the effects of the project may be experienced by plants and wildlife. Examples of indirect impacts include the effects of increases in ambient levels of noise or light; predation by domestic pets; competition with exotic plants and animals; introduction of toxics, including pesticides; and other human disturbances such as hiking, off-road vehicle use, unauthorized dumping, etc. Indirect impacts are often attributed to the subsequent day-to-day activities associated with project build-out, such as increased noise, the use of artificial light sources, and invasive ornamental plantings that may encroach into native areas. Indirect effects may be both short-term and long-term in their duration. These impacts are commonly referred to as “edge effects” and may result in a slow replacement of native plants by non-native invasives, as well as changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. A cumulative impact can occur from multiple individual effects from the same project, or from several projects. The cumulative impact from several projects is the change in the environment resulting from the incremental impact of the project when added to other closely related past, present, and

reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

5.1 California Environmental Quality Act (CEQA)

5.1.1 Thresholds of Significance

Environmental impacts to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, Section 21001(c) of the California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

Determining whether a project may have a significant effect, or impact, plays a critical role in the CEQA process. According to CEQA, Section 15064.7 (Thresholds of Significance), each public agency is encouraged to develop and adopt (by ordinance, resolution, rule, or regulation) thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the development of thresholds of significance for impacts to biological resources CEQA provides guidance primarily in Section 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. Section 15065(a) states that a project may have a significant effect where:

> *"The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ..."*

Therefore, for the purpose of this analysis, impacts to biological resources are considered potentially significant (before considering offsetting mitigation measures) if one or more of the following criteria discussed below would result from implementation of the proposed project.

5.1.2 Criteria for Determining Significance Pursuant to CEQA

Appendix G of the 2017 State CEQA guidelines indicate that a project may be deemed to have a significant effect on the environment if the project is likely to:

> *a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status*

species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.

c) Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.2 Impacts to Natural Vegetation

The Project site does not support natural vegetation communities. The development of the proposed Project would permanently impact approximately 581.7 acres of the following vegetation/land use types: agriculture, disturbed, developed, and ornamental. No natural vegetation communities are present and thus no impact would occur.

The removal of 581.7 acres of agricultural, disturbed, and developed land, as well as ornamental vegetation would not be a potentially significant impact under CEQA.

5.3 Impacts to Special-Status Plants

The proposed Project would not impact special-status plants, as none were detected during focused botanical surveys.

5.4 Impacts to Special-Status Animals

5.4.1 Impacts to Listed Species

The proposed Project has a very limited potential to impact listed species. The Project may have a limited potential to support Stephens' kangaroo rat (SKR) in lesser disturbed areas at the edge of the agriculural areas. If present, the loss of habitat for SKR might be potentially significant

under CEQA. However, the Project site occurs within the SKR Fee Assessment Area and any impacts to SKR would be covered under the SKR Habitat Conservation Plan (SKR HCP). All projects located within Fee Assessment Area, regardless of whether the sites are occupied by SKR are required to pay the SKR fee, which mitigates any impacts to SKR to a less than significant level.

The tri-colored blackbird (a state listed species) could occassionally forage at the Project site, although the site does not contain suitable nesting habitat to support a breeding colony of blackbirds, and no breeding colonies are known from the immediate vicinity of the site. The tri-colored blackbird is covered under the MSHCP without any additional survey or conservation requirements. As such, the loss of foraging habitat for tri-colored blackbird would be mitigated through overall consistency with the MSHCP.

As noted above, a bald eagle was observed on multiple occasions perching within the adjacent treatment facility to the northeast of the Project site, as well as onsite adjacent to the facility. Although the Project site is not within the breeding range for bald eagles, it is not uncommon for a single bald eagle to occur in non-breeding areas where open water is located (such as within the treatment facility), but the presence of individual birds in this capacity is generally temporary. Since the bald eagle is state listed, but not a federal listed species, the loss of limited foraging habitat in this capacity would not be considered as a "take" pursuant to CESA and should not be regarded a substantial adverse effect under CEQA. Furthermore, the bald eagle is covered under the MSHCP without additional survey or conservation requirements.

Although the least Bell's vireo (LBV) was detected offsite in adjacent riparian habitat associated with the Watson Ditch as well as within the basins located further north and west of the Project site, the Project site does not contain any habitat to support LBV, and therefore the Project will not directly impact LBV through the loss of habitat. The Project site is buffered slightly fro the Watson Ditch by the evacuation channel; however, construction activities could indirectly affect LBV if activities are conducted near the Watson Ditch during the spring and early summer when LBV would be present. Furthermore, as discussed below under indirect effects, the projects located adjacent to the MSHCP Conservation Area are expected to incorporate measures, as applicable, to minimize indirect effects. Through the implementation of applicable measures pursuant to the MSHCP, any indirect impacts that could be potentially significant would be reduced to below a level of significance through consistency with the MSHCP.

5.4.2 Impacts to Non-Listed Species

In addition to the listed species discussed above, the proposed Project would potentially remove habitat for the following non-listed special-status species: 1) Birds: burrowing owl, American peregrine falcon (foraging role only), loggerhead shrike, white-tailed kite, golden eagle (foraging role only), and northern harrier (foraging role only); and 3) Mammals: San Diego black-tailed jackrabbit, pocketed free-tailed bat, and western mastiff bat.

Non-Listed Species, MSHCP Covered

The Project will remove habitat with the potential to support burrowing owls. As noted above, an unpaired burrowing owl was observed on several occasions at a burrow within the offsite Watson Ditch, although the owl was observed within the Project site on at least one occasion and so the owl was presumed to forage within the Project site while it was present. The Project site contains numerous other burrows with the potential to support burrowing owls, although burrowing owls were not detected at any of those burrows, nor was owl sign observed suggesting that the owl was visiting burrows within the Project site with a frequency to leave sign. Regardless, no breeding owls were observed at (or adjacent to) the Project site during focused surveys. The focus of the MSHCP is to conserve areas supporting breeding burrowing owls. Objective 5 of the MSHCP objectives for burrowing owls identifies one of the following actions to be taken if burrowing owls area present outside of the Criteria Area:

- If the site contains, or is part of an area supporting less than 35 acres of suitable habitat or the survey reveals that the site and the surrounding area supports fewer than 3 pairs of burrowing owls, then the on-site burrowing owls will be passively or actively relocated following accepted protocols.

- If the site (including adjacent areas) supports three or more pairs of burrowing owls, supports greater than 35 acres of suitable habitat and is non-contiguous with MSHCP Conservation Area lands, at least 90 percent of the area with long-term conservation value and burrowing owl pairs will be conserved onsite.

Because the Project site did not support breeding owls in 2018 (i.e., fewer than three pairs), then avoidance of areas within the Project site would not be required based on the results of the surveys. Furthermore, any impacts to burrowing owls related to the loss of foraging habitat would be less than significant under CEQA through consistency with the MSHCP. As described below in Section 6.0 of this report, based on the presence of suitable habitat, pre-construction burrowing owl surveys will be required for the Project, and if burrowing owls are present at the time of construction, then additional avoidance measures may be required, including the relocation of burrowing owls from the site.

The potential loss of habitat for American peregrine falcon (foraging role only), loggerhead shrike, white-tailed kite, golden eagle (foraging role only), northern harrier (foraging role only), San Diego black-tailed jackrabbit, pocketed free-tailed bat, and western mastiff bat would be less than significant under CEQA. This is based on the number of individuals potentially affected, the species role in the Project site, and/or whether the species remains "common" to the region. Furthermore, the loss of habitat for the peregrine falcon, loggerhead shrike, white-tailed kite, golden eagle, northern harrier, and San Diego black-tailed jackrabbit would also be covered under the MSHCP.

5.5 Impacts to Critical Habitat

The proposed Project will impact lands designated as Critical Habitat by the USFWS for the San Jacinto Valley crownscale and spreading navarretia. However, impacts to Critical Habitat are

only regulated when there is a federal nexus (e.g., impacts to federal jurisdictional waters/wetlands) which does not exist for the Project. Furthermore, the Project site does not support San Jacinto Valley crownscale or spreading navarretia, and the site does not support Primary Constituent Elements (PCEs) for these species, but based on the lack of a federal nexus, the absence of PCEs is only relevant to note that the two species are not expected to occur at the Project site based on the lack of suitable habitat (and were not detected during focused surveys).

5.6 Impacts to Nesting Birds

The proposed Project has the potential to impact active bird nests if vegetation is removed during the nesting season (February 1 to August 31). Impacts to nesting birds are prohibited by the California Fish and Game Code. A project-specific avoidance measure is identified in Section 6.0 of this report to avoid impacts to nesting birds.

Although impacts to native birds are prohibited by provisions of California Fish and Game Code, impacts to native birds by the proposed Project would not be a significant impact under CEQA. The native birds with potential to nest on the Project site would be those that are extremely common to the region and highly adapted to human landscapes (e.g., house finch, killdeer). The number of individuals potentially affected by the Project would not significantly affect regional, let alone local populations of such species.

5.7 Impacts to Wildlife Migration/Nurseries

The Project site lacks migratory wildlife corridors and wildlife nursery sites. The Project site does not occur within MSHCP Cores or Linkages. The proposed Project would not interfere or impact (1) the movement of native resident or migratory fish or wildlife species or (2) established native resident or migratory wildlife corridors, nor would it impede the use of native wildlife nursery sites. No impact to wildlife migration corridors or wildlife nursery sites would occur.

5.8 Impacts to Jurisdictional Waters

There are no Corps, CDFW, or Regional Board jurisdictional waters within the Project site; therefore, no impacts would occur. As such, implementation of the proposed Project would not require a Corps CWA Section 404 Permit, Regional Board CWA Section 401 Water Quality Certification or CWC Section 13260 Waste Discharge Order, or CDFW Section 1602 Streambed Alteration Agreement.

5.9 Impacts to MSHCP Riparian/Riverine Areas

The Project site does not contain MSHCP riparian/riverine areas or vernal pools and therefore the proposed Project will not directly impact those resources. However, the Project site is adjacent to, or proximal to, riparian/riverine areas associated with the Watson Ditch, including habitat for the least Bell's vireo. *Volume I, Section 6.1.2* of the MSHCP states that "edge treatments shall also be addressed as part of the avoidance and minimization process for areas not to be included in the MSHCP Conservation Area. Edges are areas in proximity to sensitive Habitat where land use should be reviewed to provide protection for the sensitive Habitat. Consideration of edge treatments is typically required in the review of all projects under existing

regulations and procedures. The application of these existing regulations and procedures can contribute to the long-term conservation of functions and values of riparian/riverine areas and vernal pools within the MSHCP Plan Area to assure maintenance of functions and values within the MSHCP Conservation Area. The extent and type of edge treatment needs to be evaluated on a project-by-project and resource-by-resource basis but should consider the following potential indirect impacts: lighting, noise, trash/debris, urban and stormwater runoff, toxic materials, exotic plant and animal infestations, dust, trampling and unauthorized recreational use, and their relation to the functions and values of the areas to be conserved." The potential for indirect effects is addressed below in Section 5.11.

5.10 Indirect Impacts to Biological Resources

The MSHCP Urban/Wildland Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. As the MSHCP Conservation Area is assembled, development is expected to occur adjacent to the Conservation Area. Future development in proximity to the MSHCP Conservation Area may result in edge effects with the potential to adversely affect biological resources within the Conservation Area. To minimize such edge effects, the Guidelines shall be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area and address the following:

- Drainage;
- Toxics;
- Lighting;
- Noise;
- Invasive species;
- Barriers;
- Grading/Land Development.

The Project site is adjacent to the MSHCP Criteria Area and portions of those lands are targeted for inclusion into the MSHCP Conservation Area. In addition, the Project site is adjacent to the Watson Ditch, which supports MSHCP riparian/riverine resources, including the least Bell's vireo. As noted above in Section 5.9, the MSHCP riparian/riverine policies state that edge treatments (i.e., indirect effects) shall also be addressed as part of the avoidance and minimization process for areas not to be included in the MSHCP Conservation Area. Therefore, regardless of whether portions of the Watson Ditch will become part of the Conservation Area in the future, the MSHCP requires that indirect effects be addressed for resources associated with the Watson Ditch and for other riparian/riverine resources that the Watson Ditch connects to (i.e., the San Jacinto River). Furthermore, indirect effects must be analyzed under CEQA, although in the context of the MSHCP, measures are only applicable for projects that are adjacent to the MSHCP Conservation Area or avoided riparian/riverine resources not located in the Conservation Area.

5.10.1 Drainage

Proposed projects in proximity to the MSHCP Conservation Area (or riparian/riverine areas not associated with the Conservation Area) shall incorporate measures, including those required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.

The Project will not construct outfall connections to the Watson Ditch and will not otherwise drain into the Watson Ditch. However, the Project will tie into existing connections within Line A to accommodate drainage from the site, which will ultimately connect with the San Jacinto River via the evacuation channel. Furthermore, the Project sponsor's contractor will develop a Stormwater Pollution Prevention Plan (SWPPP) to address runoff and water quality during construction.

5.10.2 Toxics

Land uses proposed in proximity to the MSHCP Conservation Area that use chemicals or generate bioproducts such as manure that are potentially toxic or may adversely affect wildlife species, habitat or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharge to the MSHCP Conservation Area. Measures such as those employed to address drainage issues shall be implemented. The proposed Project will implement a SWPPP that will address runoff during construction.

5.10.3 Lighting

Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. If night lighting is required during construction, shielding shall be incorporated to ensure ambient lighting in the MSHCP Conservation Area is not increased. The lighting plan for the proposed Project will implement measures to shield or direct light spillage from the MSHCP Conservation Area.

5.10.4 Noise

Proposed noise generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations and guidelines related to land use noise standards. For planning purposes, wildlife within the MSHCP Conservation Area should not be subject to noise that would exceed residential noise standards. With the proposed setback of the

Project from the riparian habitat within the Watson Ditch, adverse indirect effects are not expected due to noise from the Project post-construction. However, there is a potential for construction noise to adversely affect wildlife within the Watson Ditch, and particularly the least Bell's vireo. Therefore, construction within 300 feet of the off-site riparian habitat should be avoided from March 15 to July 31. If avoidance of that timeframe is not feasible, then a qualified biologist should conduct surveys for the least Bell's vireo and perform noise monitoring of any activities within 300 feet of occupied habitat. If it is determined that noise levels may adversely affect least Bell's vireo, then noise attenuation measures should be implemented, including but not limited to a sound wall, otherwise construction activities should be halted within 300 feet of occupied habitat until after July 31.

5.10.5 Invasives

Projects adjacent to the MSHCP Conservation Area shall avoid the use of invasive plant species in landscaping, including invasive, non-native plant species listed in *Volume I,* Table 6-2 of the MSHCP. The proposed Project will not incorporate any invasive plants within the landscaping plant palette.

5.10.6 Barriers

Proposed land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass or dumping in the MSHCP Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage and/or other appropriate mechanisms. The portions of the Project that may applicable to this guideline include the portion south of the Watson Ditch, and the portion east of Cell# 3467 and south of Cell# 3378. The southwestern portion of the Project is separated from the Watson Ditch, including the riparian habitat, by the evacuation channel, which provides an effective barrier from the Watson Ditch. In addition, barriers will be in place to prevent the public from entering the evacuation facility, the Line A facility, and the eastern portion of the Watson Ditch. For the portion of the Project located east of Cell# 3467 and south of Cell# 3378, development of those parcels will include barriers to prevent public access to future conservation areas that may become established in the Criteria Area. At the minimum, fencing or other effective barriers should be constructed where the Project abuts the Criteria Area to prevent unauthorized vehicle access and to prevent or discourage pedestrian access to the adjacent lands.

5.10.7 Grading/Land Development

The MSHCP states that manufactured slopes associated with development shall not extend into the MSHCP Conservation Area. The proposed Project will not incorporate any manufactured slopes extending into the MSHCP Conservation Area.

5.11 Cumulative Impacts to Biological Resources

Cumulative impacts are defined as the direct and indirect effects of a proposed project which, when considered alone, would not be deemed a substantial impact, but when considered in

addition to the impacts of related projects in the area, would be considered potentially significant. "Related projects" refers to past, present, and reasonably foreseeable probable future projects, which would have similar impacts to the proposed project.

The Project is not expected to impact any special-status species where impacts would be less than significant at the project level without mitigation and that are not covered by the MSHCP. Therefore, the Project is not expected to contribute to cumulative impacts that would not otherwise be covered by the MSHCP.

6.0 MITIGATION/AVOIDANCE MEASURES

The following discussion provides project-specific mitigation/avoidance measures for actual or potential impacts to special-status resources.

6.1 Burrowing Owl

The Project site occurs within the MSHCP burrowing owl survey area and supports suitable habitat (including several areas with burrows) for burrowing owls. As such, the following measures are necessary to avoid any physical harm to burrowing owls during construction and to ensure consistency with the MSHCP:

- A qualified biologist will perform a pre-construction burrowing owl survey no more than 30 days prior to the initiation of ground disturbance, and no less than 14 days prior. A minimum of one survey visit will be conducted to document/confirm presence or absence of owls within the Project footprint. Subsequent surveys may be necessary for areas where disturbance is to be conducted more than 30 days from the initial pre-construction surveys. If burrowing owls area detected, the owls will be excluded from the site outside of the breeding season subject to the approval of the RCA and Wildlife Agencies.

6.2 Nesting Birds

The Project site contains ground cover and vegetation with the potential to support native nesting birds. As discussed above, the California Fish and Game Code prohibits mortality of native birds, including eggs. The following measure is recommended to avoid mortality to nesting birds. Potential impacts to native birds was not considered a biologically significant impact under CEQA, however, to comply with state law, the following is recommended:

- As feasible, grading and vegetation clearing should be conducted outside of the nesting season, which is generally identified as February 1 through September 15. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

7.0 MSHCP CONSISTENCY ANALYSIS

The purpose of this section is to provide an analysis of the proposed Project with respect to compliance with biological aspects of the Western Riverside County MSHCP. Specifically, this analysis evaluates the proposed Project with respect to the Project's consistency with MSHCP Reserve assembly requirements, *Section 6.1.2* (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), *Section 6.1.3* (Protection of Narrow Endemic Plant Species), *Section 6.1.4* (Guidelines Pertaining to the Urban/Wildlands Interface), and *Section 6.3.2* (Additional Survey Needs and Procedures).

7.1 Project Relationship to Reserve Assembly

The Project is located within the Mead Valley Area Plan of the MSHCP; but is not located within the MSHCP Criteria Areas [Exhibit 4 – MSHCP Overlay]. The Project is also not located within the MSHCP Core and Linkage areas. As such, the proposed Project has not been identified by the MSHCP for reserve assembly and is not subject to the HANS process or the JPR process.

7.2 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools

As discussed in Section 5.9 of this report, the proposed Project will not directly impact MSHCP riparian/riverine areas or vernal pools. In addition, applicable measures will be implemented as described in Section 10 of this report to avoid or minimize indirect effects to resources within the Watson Ditch and the San Jacinto River. Provided that the Project will not directly impact riparian/riverine areas or vernal pools, and will not result in adverse indirect effects through the implementation of applicable measures, a DBESP will not be required, and the proposed Project will be consistent with MSHCP *Volume I, Section 6.1.2* of the MSHCP.

7.3 Protection of Narrow Endemic Plants

Volume I, Section 6.1.3 of the MSHCP requires that within identified NEPSSA, site-specific focused surveys for Narrow Endemic Plants Species will be required for all public and private projects where appropriate soils and habitat are present.

The proposed Project occurs within MSHCP NEPSSA designated survey area 3; therefore, the following MSHCP target species were evaluated: Munz's onion (*Allium munzii*), San Diego ambrosia (*Ambrosia pumila*), many-stemmed dudleya (*Dudleya multicaulis*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), and Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*). Due to a combination of factors including unsuitable soils, lack of mesic conditions, high density of non-native vegetation and a prolonged history of ground disturbance activities including agricultural operations, the Project site was determined to not support suitable habitat for these plant species.

The Project will not impact Narrow Endemic Plants and therefore is consistent with *Volume I, Section 6.1.3* of the MSHCP.

7.4 Guidelines Pertaining to the Urban/Wildland Interface

The MSHCP Urban/Wildland Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. As the MSHCP Conservation Area is assembled, development is expected to occur adjacent to the Conservation Area. Future development in proximity to the MSHCP Conservation Area may result in edge effects with the potential to adversely affect biological resources within the Conservation Area. To minimize such edge effects, the guidelines shall be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area and address the following:

- Drainage;
- Toxics;
- Lighting;
- Noise;
- Invasive species;
- Barriers;
- Grading/Land Development.

Section 5.10 above discusses measures to address indirect effects/edge treatments associated with portions of the Project adjacent to the Watson Ditch and the Criteria Area.

7.5 Additional Survey Needs and Procedures

Volume I, Section 6.3.2 of the MSHCP identifies that in addition to the Narrow Endemic Plant Species addressed in Section 6.1.3 of the MSHCP, additional surveys may be needed for other certain plant and animal species in conjunction with MSHCP implementation in order to achieve full coverage for these species. Within areas of suitable habitat, focused surveys are required if a project site occurs within a designated CAPSSA, or special animal species survey area (i.e., burrowing owl, amphibians, and mammals). The proposed Project site does not occur within the amphibian or mammal survey areas, or within the CAPSSA.

The Project site occurs within the burrowing owl survey area; however, breeding owl pairs were not observed during focused surveys, and therefore avoidance is not required for burrowing owls However, as noted in Section 6.1 of this report, the Project will implement pre-construction surveys to ensure the Project will not result in the direct harm of burrowing owls that could occur onsite in the future. The proposed Project will be consistent with MSHCP *Volume I, Section 6.3.2* with implementation of the measures in Section 6.1.

7.6 Conclusion of MSHCP Consistency

As outlined above, the proposed Project will be consistent with the biological requirements of the MSHCP; specifically pertaining to the Project's relationship to reserve assembly, *Section 6.1.2* (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), *Section 6.1.3* (Protection of Narrow Endemic Plant Species), *Section 6.1.4* (Guidelines Pertaining to the Urban/Wildlands Interface), and *Section 6.3.2* (Additional Survey Needs and Procedures).

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9.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Signed:_____ Date: September 30, 2020

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Source: ESRI World Street Map

N

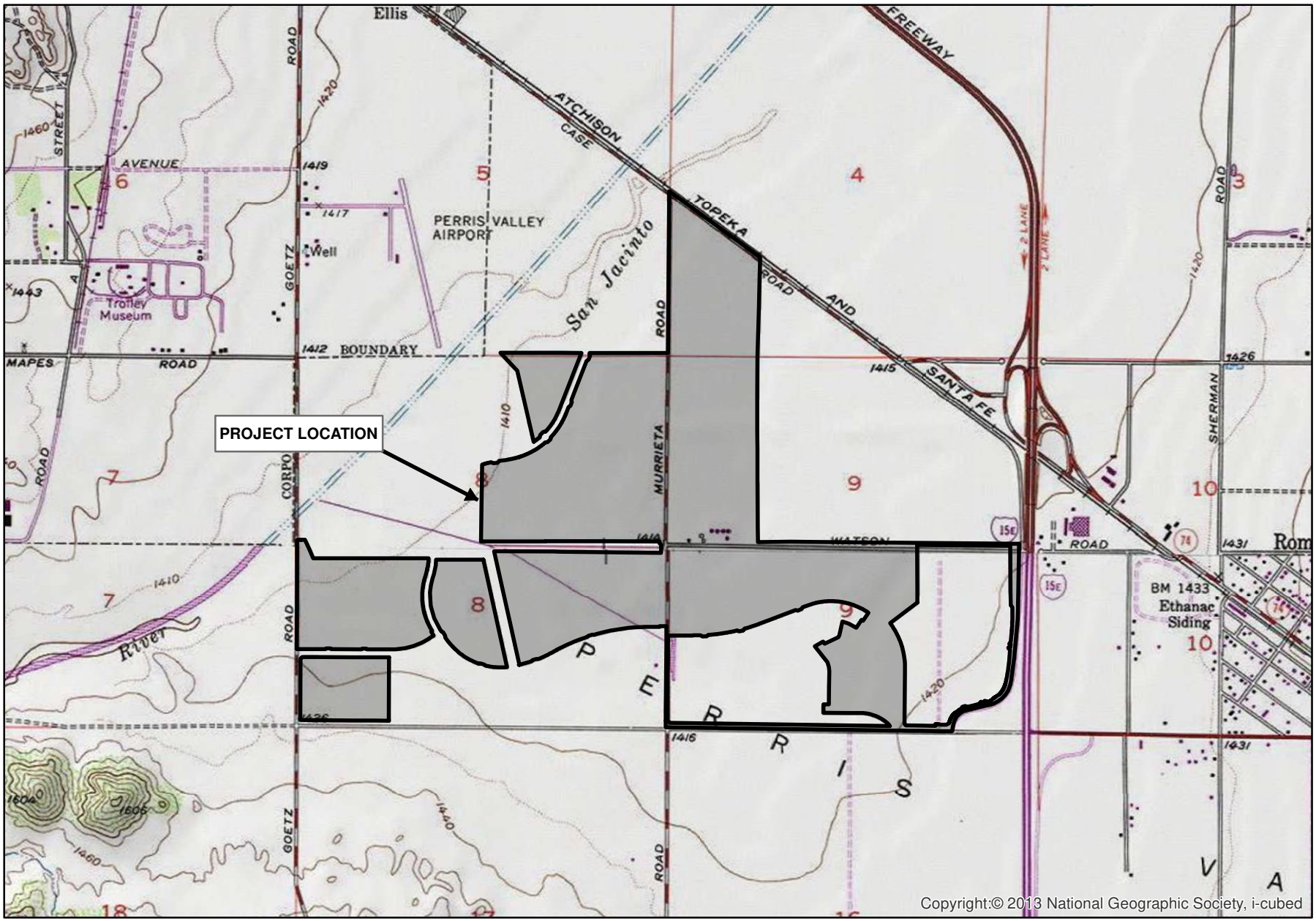
0 2 4 8 Miles

GREEN VALLEY PHASE II

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Perris & Romoland CA quadrangles

N

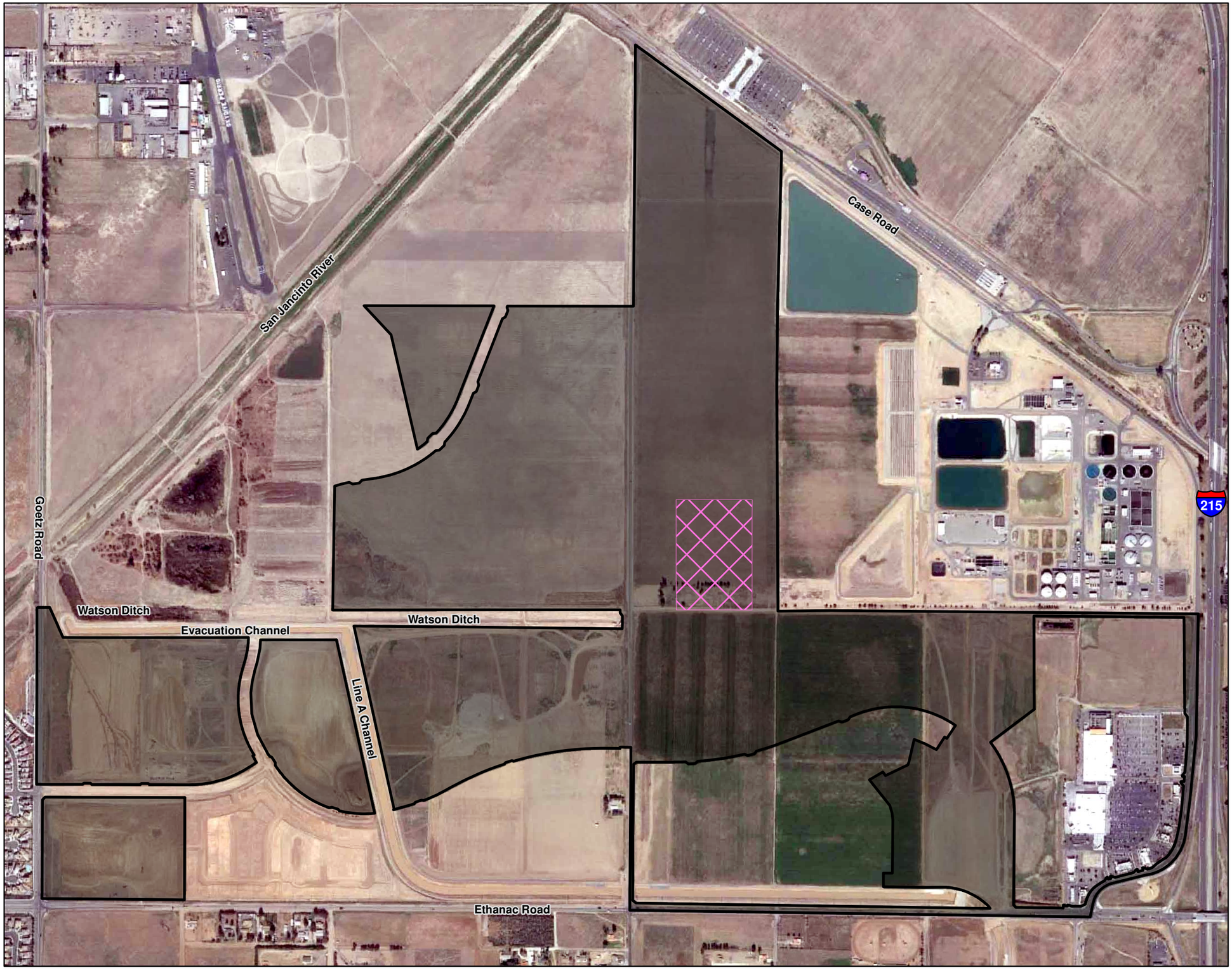
0 1,000 2,000 4,000 Feet

GREEN VALLEY PHASE II

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Project Site

School Site

N

0 425 850 1,700

Feet

1 inch = 850 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: December 13, 2019

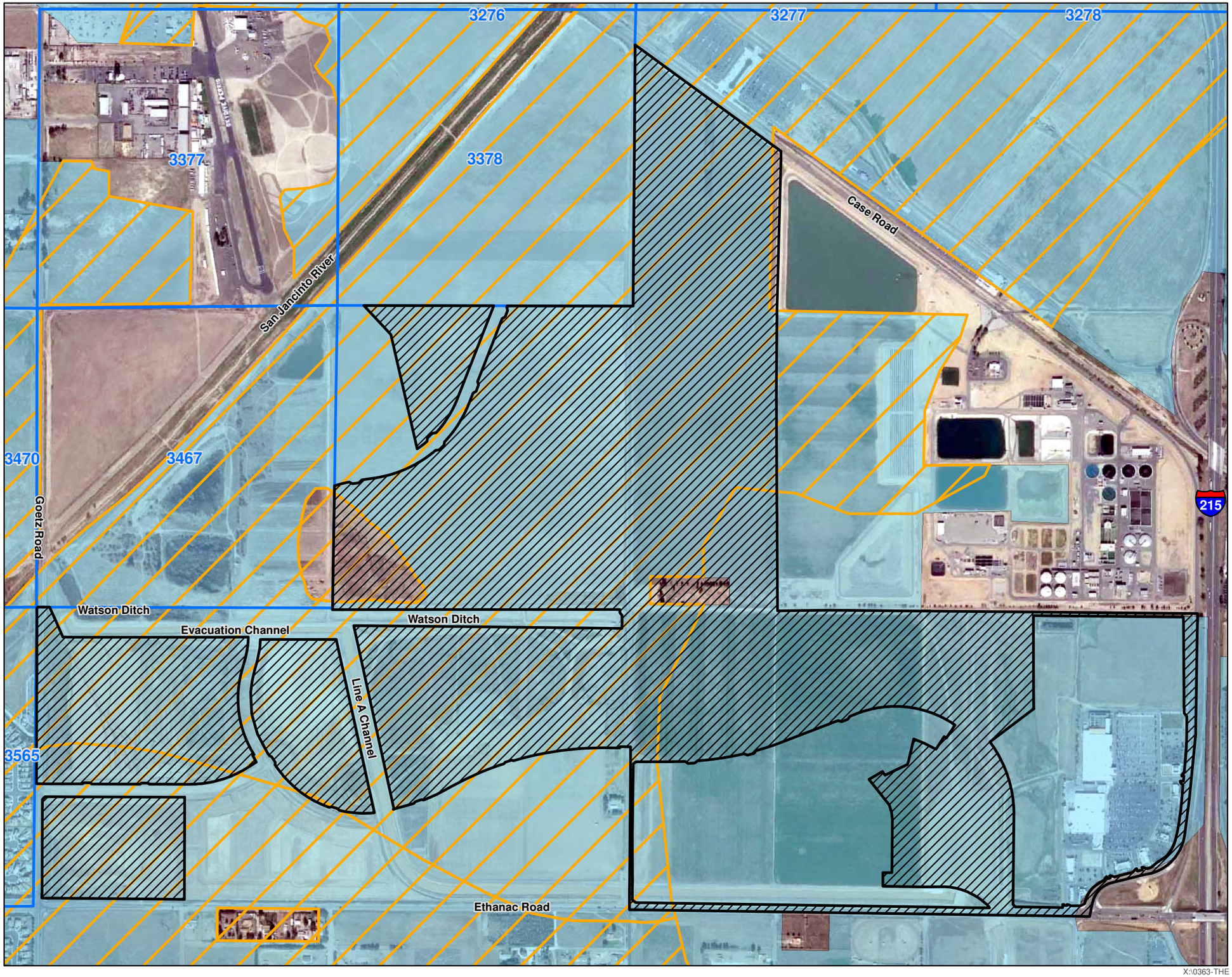
GREEN VALLEY PHASE II

Site Map

GLENN LUKOS ASSOCIATES

Exhibit 3

X:\0363-THE REST\1083-02GRVA\1083-2_GIS\BIOGISPhase2\1083-2AerialPh2.mxd



Project Site

Criteria Cells

Burrowing Owl Survey Area

Narrow Endemic Plant Survey Area

N

0 425 850 1,700

Feet

1 inch = 850 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: September 30, 2020

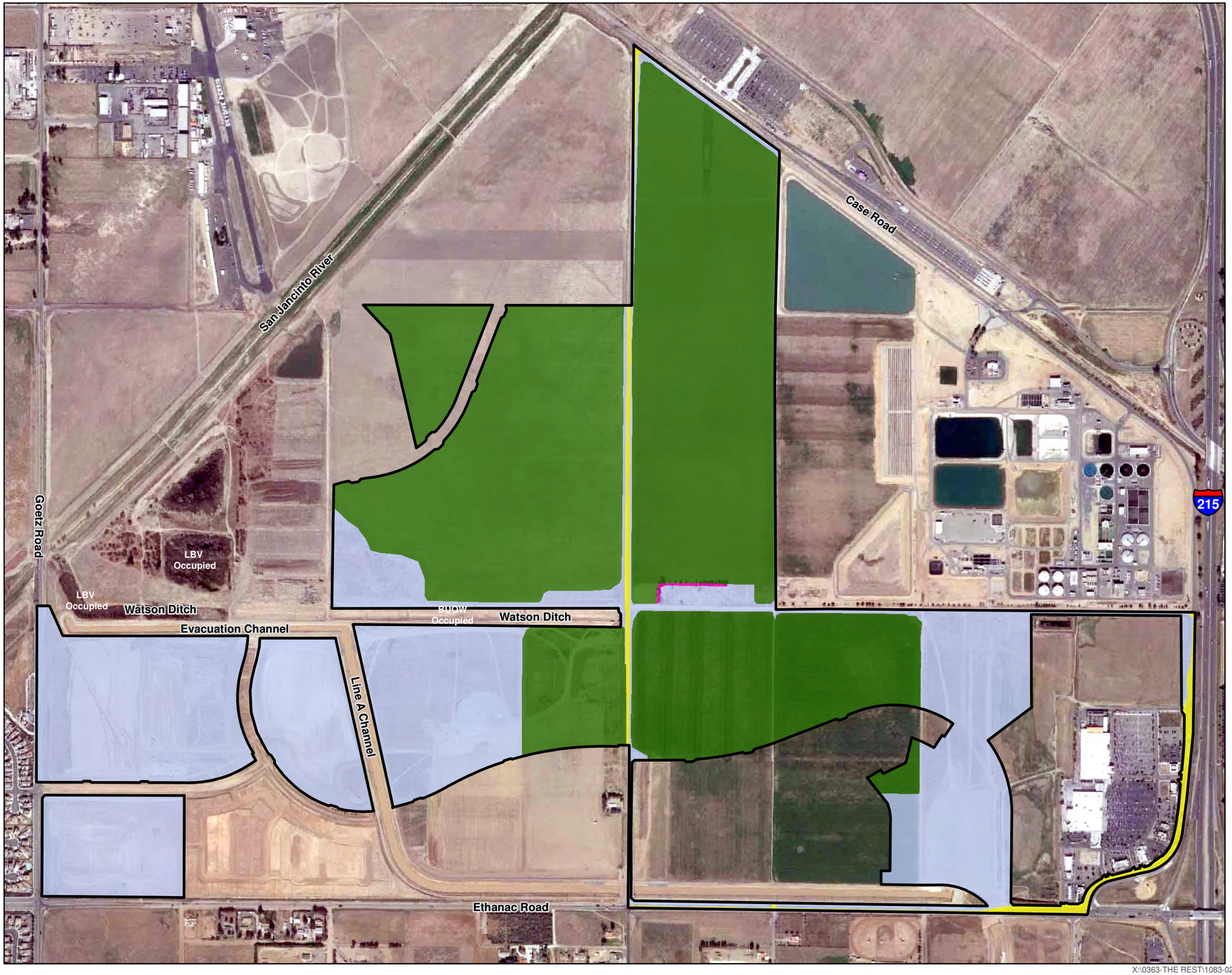
GREEN VALLEY PHASE II

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 4

X:\0363-THE REST\1083-02GRVA\1083-2_GIS\BIOGISPhase2\MSHCPGIS\1083-2MSHCPPh2.mxd



Project Site

Agriculture

Developed

Disturbed

Ornamental

N

0 425 850 1,700

Feet

1 inch = 850 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: September 30, 2020

GREEN VALLEY PHASE II

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 5

X:\0363-THE REST\1083-02GRVA\1083-2_GIS\BIOGISPhase2\VegetationGIS\1083-2VegetationMappingPh2.mxd

Photograph 1: Representative photo of agricultural areas within the Project site. Photo taken from the northern boundary near Case Road, facing south. Note the lack of native vegetation.

Photograph 2: Representative photo of routinely disked areas throughout the site. Note the ornamental eucalyptus trees in the distance. Photo taken from the eastern boundary at the central portion of the Project site, facing west.

Photograph 3: Representative photo of network of access roads throughout site. Photo taken from the central/western portion of the Project site, south of Watson ditch, facing east.

Photograph 4: Representative photo of disturbed portions throughout the Project site.

GLENN LUKOS ASSOCIATES

Exhibit 6

GREEN VALLEY PHASE II

Site Photographs

Photograph 5: Occupied burrowing owl burrow on the south bank of Watson Ditch. Photo taken outside the Project boundary, within the Watson Ditch, facing south. Photo location is provided on Exhibit 7 – Burrowing Owl Results Map.

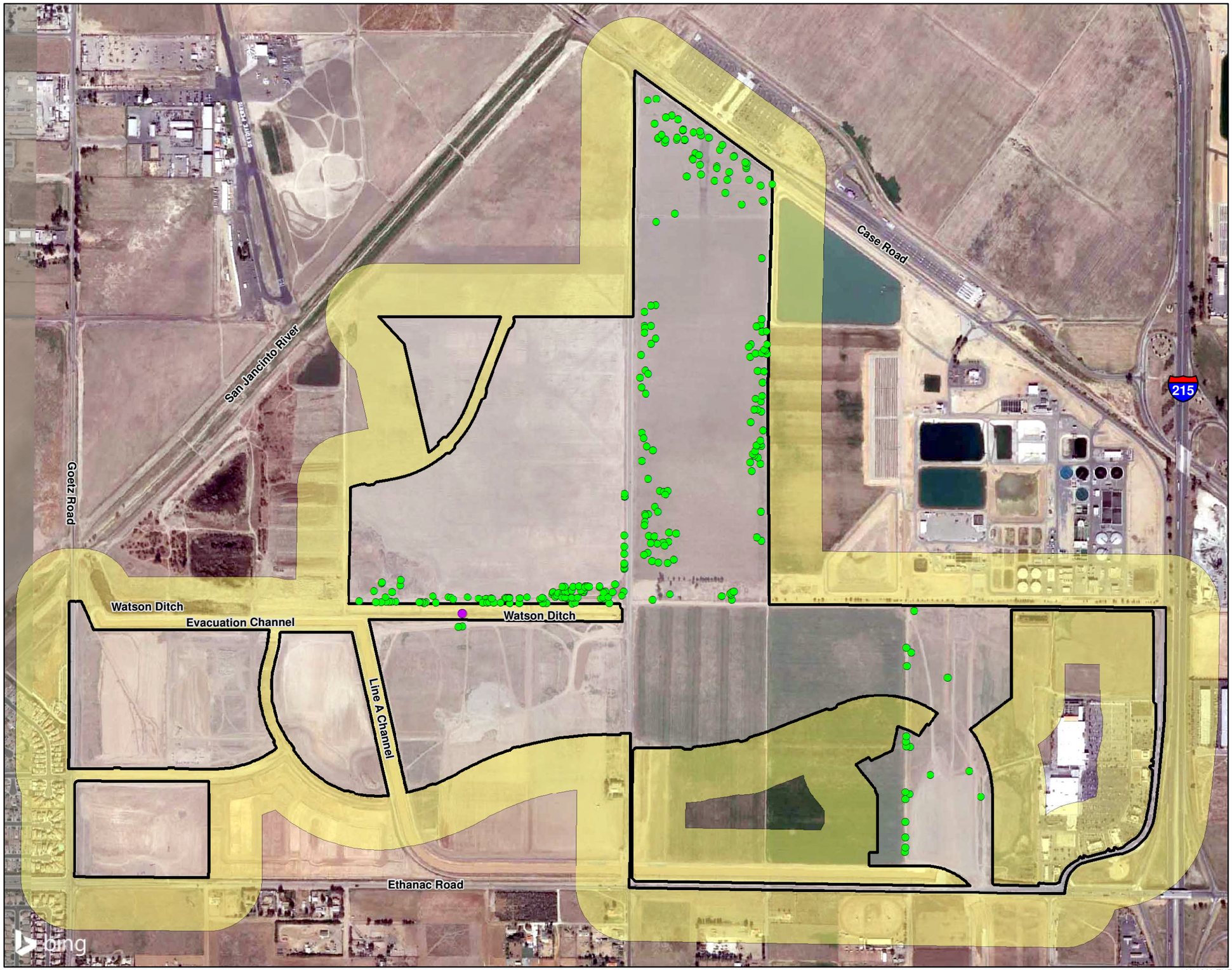
Photograph 6: Representative photo of riparian area occurring west of the project site, outside the Project boundary. Photo taken from the western boundary of the Project area, facing west.

GLENN LUKOS ASSOCIATES

Exhibit 6

GREEN VALLEY PHASE II

Site Photographs



Project Site

500' Buffer Area

Burrow Locations

Burrowing Owl Location

N

0 450 900 1,800

Feet

1 inch = 900 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: December 13, 2019

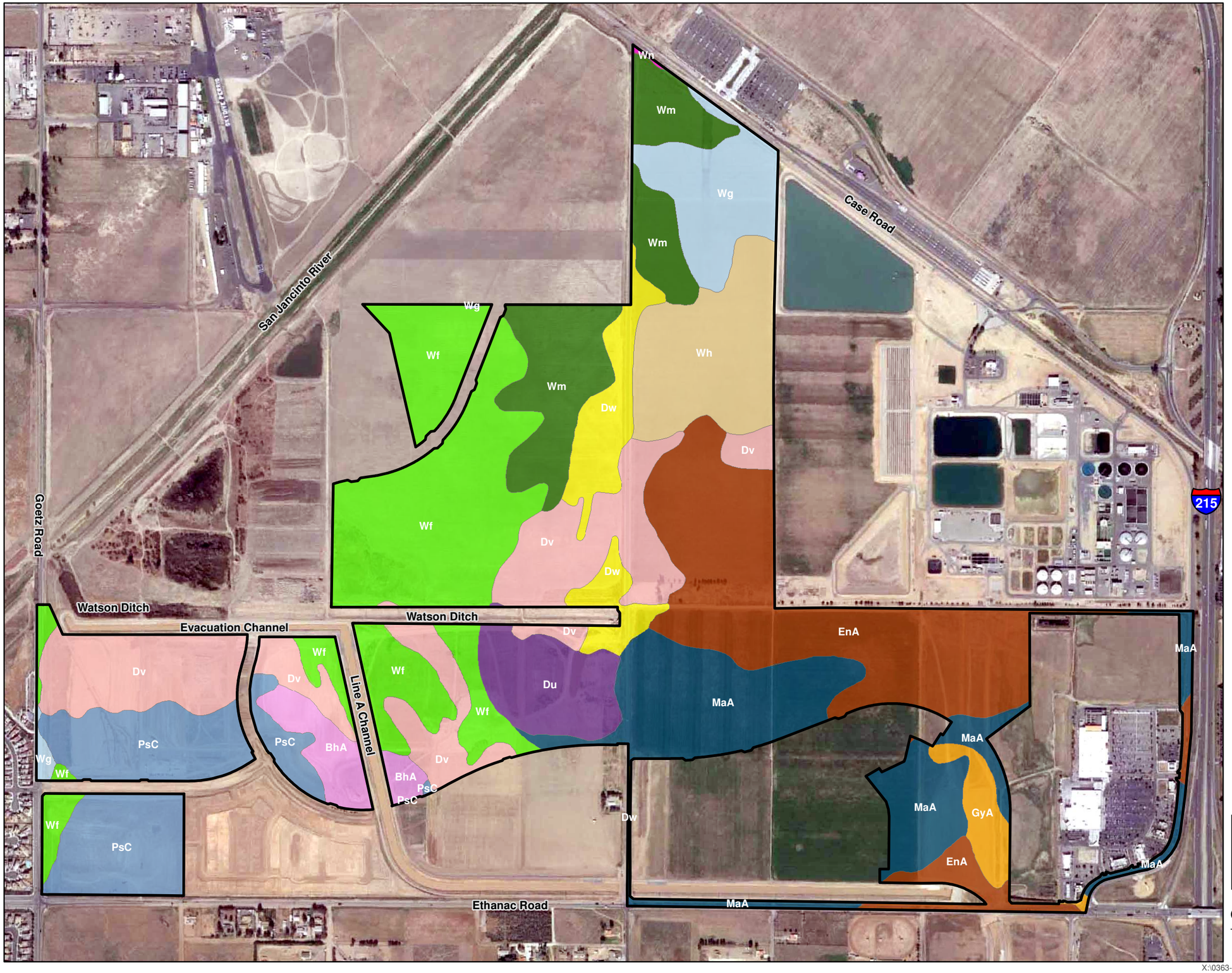
GREEN VALLEY PHASE II

Burrowing Owl Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 7

X:\0363-THE REST\1083-02GRVA\1083-2_GIS\BIOGISPhase2\BuowGIS\1083-2BuowMapPh2.mxd



- Project Site
- BhA - Buchenau loam, slightly saline-alkali, 0 to 2 percent slopes
- Du - Domino silt loam
- Dv - Domino silt loam, saline-alkali
- Dw - Domino silt loam, strongly saline-alkali
- EnA - Exeter sandy loam, 0 to 2 percent slopes
- GyA - Greenfield sandy loam, 0 to 2 percent slopes
- MaA - Madera fine sandy loam, 0 to 2 percent slopes
- PsC - Porterville clay, moderately deep, 2 to 8 percent slopes
- Wf - Willows silty clay
- Wg - Willows silty clay, saline-alkali
- Wh - Willows silty clay, strongly saline-alkali
- Wm - Willows silty clay, deep, saline-alkali
- Wn - Willows silty clay, deep, strongly saline-alkali

N

0 425 850 1,700

Feet

1 inch = 850 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: September 30, 2020

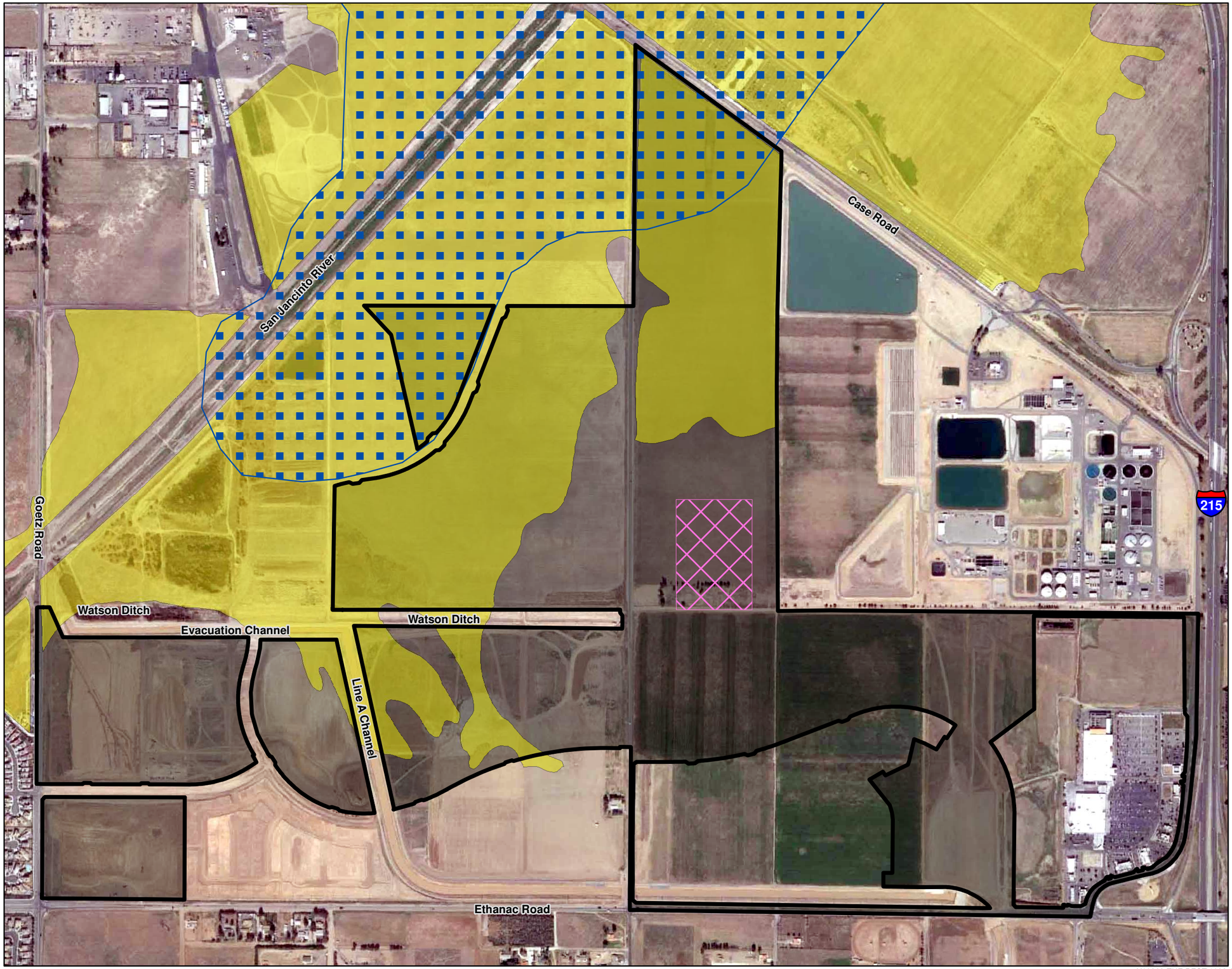
GREEN VALLEY PHASE II

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 8

X:\0363-THE REST\1083-02GRVA\1083-2_GIS\BIOGISPhase2\SoilsGIS\1083-2SoilsPh2.mxd



Project Site

School Site

Critical Habitats

San Jacinto Valley Crownscale

Spreading Navarretia

N

0 425 850 1,700

Feet

1 inch = 850 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: September 30, 2020

GREEN VALLEY PHASE II

Critical Habitat Map

GLENN LUKOS ASSOCIATES

Exhibit 9

X:\0363-THE REST\1083-02GRVA\1083-2_GIS\BIOGISPhase2\CriticalHabitatGIS\1083-2_CriticalHabitatPh2.mxd

APPENDIX A:
FLORAL COMPENDIUM

The floral compendium lists all species identified during floristic level/focused plant surveys conducted for the Project site and within the survey buffer. Taxonomy typically follows the Angiosperm Phylogeny Group (APG), which in some cases differs from The Jepson Manual (1993). Common plant names are taken from Hickman (1993), Munz (1974), and Roberts et al (2004) and Roberts (2008). An asterisk (*) denotes a non-native species.

SCIENTIFIC NAME	COMMON NAME
MAGNOLIOPHYTA	**FLOWERING PLANTS**
MONOCOTYLEDONS	**MONOCOTS**
POACEAE	**Grass Family**
Distichlis spicata	saltgrass
* *Hordeum murinum*	foxtail barley
EUDICOTYLEDONS	**EUDICOTS**
AMARANTHACEAE	**Amaranth Family**
* *Amaranthus albus*	tumbling pigweed
Amaranthus blitoides	prostrate pigweed
Amaranthus palmeri	Palmer's amaranth
Atriplex argentea	silver saltweed
* *Atriplex semibaccata*	Australian saltbush
* *Bassia hyssopifolia*	five-hook bassia
* *Chenopodium album*	lamb's quarters
* *Salsola tragus*	Russian-thistle
ANACARDIACEAE	**Sumac Family**
* *Schinus molle*	Peruvian pepper tree
ASTERACEAE	**Sunflower Family**
* *Centaurea melitensis*	tocalote
* *Erigeron canadensis*	Canadian horseweed
Hazardia squarrosa	saw toothed goldenbush
Helianthus annuus	common sunflower
* *Helminthotheca echioides*	bristly ox-tongue
Heterotheca sessiliflora	golden aster
* *Oncosiphon piluliferum*	stinknet
* *Sonchus oleraceus*	common sow-thistle

	Xanthium strumarium	cocklebur
BORAGINACEAE		**Borage Family**
	Amsinckia menziesii	Menzies' fiddleneck
	Heliotropium curassavicum	heliotrope
BRASSICACEAE		**Mustard Family**
*	*Brassica nigra*	black mustard
*	*Hirschfeldia incana*	summer mustard
*	*Lepidium latifolium*	broadleaved pepperweed
*	*Sisymbrium irio*	London rocket
CONVOLVULACEAE		**Morning Glory Family**
*	*Convolvulus arvensis*	field bindweed
FABACEAE		**Legume Family**
*	*Medicago sativa*	alfalfa
GERANIACEAE		**Geranium Family**
*	*Erodium cicutarium*	red-stemmed filaree
MALVACEAE		**Mallow Family**
*	*Malva parviflora*	cheeseweed
	Malvella leprosa	alkali-mallow
MYRTACEAE		**Myrtle Family**
*	*Eucalyptus globulus*	blue gum
SOLANACEAE		**Nightshade Family**
	Datura wrightii	jimsonweed

APPENDIX B:
FAUNAL COMPENDIUM

Vertebrates identified in the field by sight, calls, tracks, scat, or other signs are cited according to the nomenclature of Collins (1997) for amphibians and reptiles, AOU (1998) for birds, and Jones et al. (1992) for mammals. Species were noted by direct observation, call identification, or detection of tracks, scat, or other diagnostic signs.

LEGEND

† Denotes special-status species
* Denotes non-native species

TERRESTRIAL VERTEBRATES

BIRDS

CATHARTIDAE - NEW WORLD VULTURES

Cathartes aura
turkey vulture

ACCIPITRIDAE - HAWKS

Buteo jamaicensis
red-tailed hawk
†*Elanus leucurus*
white-tailed kite
†*Haliaeetus leucocephalus*
bald eagle

ODONTOPHORIDAE - PHEASANTS & QUAILS

Callipepla californica
California quail

ARDEIDAE - HERONS AND STORKS

Ardea alba
great egret

RECURVIROSTRIDAE - STILTS AND AVOCETS

Himantopus mexicanus
black-necked stilt

COLUMBIDAE - PIGEONS & DOVES

Zenaida macroura
mourning dove
**Columba livia*
rock pigeon

TROCHILIDAE - HUMMINGBIRDS

Calypte anna
Anna's hummingbird

FALCONIDAE - FALCONS

Falco sparverius
American kestrel
†*Falco peregrinus*
peregrine falcon

TYTONIDAE - BARN OWLS

Tyto alba
barn owl

STRIGIDAE - TRUE OWLS

†*Athene cunicularia*
burrowing owl

TYRANNIDAE - TYRANT FLYCATCHERS

Sayornis saya
Say's phoebe
Tyrranis vociferans
Cassin’s kingbird
Empidonax difficilis
Pacific-slope flycatcher

LANIIDAE - SHRIKES

†*Lanius ludovicianus*
Loggerhead shrike

VIREONIDAE - VIREOS

†*Vireo bellii pusillus*
least Bell’s vireo (detected off-site)

CORVIDAE - JAYS & CROWS

Corvus brachyrhynchos
American crow
Corvus corax
Common raven
Aphelocoma californica
California scrub jay

HIRUNDINIDAE - SWALLOWS

Hirundo rustica
barn swallow
Hirundo pyrrhonota
cliff swallow

MIMIDAE - THRASHERS

Mimus polyglottos
Northern mockingbird

STURNIDAE - STARLINGS

**Sturnus vulgaris*
European starling

EMBERIZIDAE – SPARROWS, BUNTINGS, WARBLERS, & RELATIVES

Chondestes grammacus
lark sparrow

ICTERIDAE - BLACKBIRDS AND ORIOLES

Sturnella neglecta
western meadowlark
Euphagus cyanocephalus
Brewer's blackbird
Agelaius phoeniceus
red-winged blackbird

FRINGILLIDAE - FINCHES

Carpodacus mexicanus
house finch
Carduelis psaltria
lesser goldfinch
Spinus tristis
American goldfinch

PASSERIDAE - OLD WORLD SPARROWS

**Passer domesticus*
house sparrow

ALAUDIDAE - AMERICAN SPARROWS

†*Eremophila alpestris actia*
California horned lark

MAMMALS

GEOMYIDAE - POCKET GOPHERS

Thomomys bottae
Botta's pocket gopher

CANIDAE - CANINES

Canis latrans
coyote

LEPORIDAE - RABBITS AND HARES

Sylvilagus audubonii
desert cottontail
†*Lepus californicus*
black-tailed jackrabbit

SCIURIIDAE - SQUIRRELS

Otospermophilus beecheyi
California ground squirrel