

BIOLOGICAL TECHNICAL REPORT

FOR

SEATON TECH CENTER PROJECT

**LOCATED IN UNINCORPORATED MEAD VALLEY,
RIVERSIDE COUNTY, CALIFORNIA**

Assessor's Parcel Number 314-130-007

Case Number PPT 180025

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April 23, 2019
[Revised October 10, 2019]

INFORMATION SUMMARY

- A. Report Date:** April 23, 2019 [Revised October 10, 2019]
- B. Report Title:** Seaton Tech Center Project
Assessor's Parcel Number 314-130-007
Case Number PPT 180025
- C. Study Area Location:** Unincorporated Mead Valley, Riverside County, California, USGS 7.5" quadrangle map Steele Peak, Section 1 of Township 4 South, Range 4 West, south of Perry Street, east of Seaton Avenue, west of Harvill Avenue, and north of Martin Street.
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- F. Report Summary:**

A biological study was performed for the proposed Seaton Tech Center Project (Project) located in Unincorporated Mead Valley, Riverside County, California. The Project applicant would construct an industrial warehouse on approximately 8.95 acres of land and provide roadway improvements to Seaton Avenue and Perry Street on approximately 1.63 acres of land. In total, the Study Area is 10.58 acres. 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 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, narrow endemic plant, mammals, and amphibians, as well as outside of core and linkage areas.

The Study Area is located in the Burrowing Owl Survey Area. Habitat assessments 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 Study Area does not support potential habitat for riparian birds or fairy shrimp. No ponding was observed at the site during biological surveys, including those that occurred following periods of substantial rainfall. The site lacks the suitable topography (including localized depressions) to support prolonged inundation necessary to support fairy shrimp. The site slopes slightly from west to east, with the central portion of the site containing drainage features that convey flows from west to east. As a result of the sloping topography and drainage, there is no opportunity for water to pond at the site. Furthermore, the site does not contain any artificial depressional features, including tire tracks and stock ponds that could support prolonged inundation. In addition, the site is mapped as containing sandy loam soils, which are generally not associated with vernal pools. Observations of the soils at the site showed a lack of clay soil components. The Study Area includes federal and state jurisdictional waters and MSHCP riverine/riparian habitats. No vernal pools are present on site. A focused survey for burrowing owl was performed and the species was determined to be absent from the Study Area. There is no proposed or designated Critical Habitat present. There are no wildlife corridors, linkages, or nurseries within the Study area.

G. Individuals Conducting Fieldwork:

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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 10.58-acre Seaton Tech Center Project (the Project), which includes an approximate 8.95 acres of onsite area and 1.63 acres of off-site improvements (The Study Area), located in unincorporated Mead Valley, Riverside County, California. This report identifies and evaluates impacts to biological resources associated 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 approximately 10.58-acre Study Area which includes approximately 8.95-acres of Study Area and 1.63 acres of offsite improvements, 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 CWA, Santa Ana Regional Water Quality Control Board (Regional Board) pursuant to Section 401 of the CWA and Section 13260 of the California Water Code (CWC), and CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600–1617 of the California Fish and Game Code. Observations of all plant and wildlife species were recorded during the biological studies and are included as Appendix A: Floral Compendium and Appendix B: Faunal Compendium.

1.2 Project Location

The Study Area comprises approximately 10.58 acres in unincorporated Mead Valley, Riverside County, California [Exhibit 1 – Regional Map] and is located within Section(s) 1 of Township 4 South, Range 4 West, of the U.S. Geological Survey (USGS) 7.5” quadrangle map Steele Peak (dated 1967 and photorevised in 1973)[Exhibit 2 – Vicinity Map]. The Study Area is located in unincorporated Riverside County, California on Assessor Parcel Number (APN) 314-130-007.

The Study Area is located south of Perry Street, east of Seaton Avenue, west of Harvill Avenue, and north of Martin Street. Specifically, the Study Area is located near the southeast corner of Perry Street and Seaton Avenue. The southeast corner of the Study Area is located ~96 feet south of Perry Street in its existing condition.

1.3 Project Description

For this report, the term *Project site* is defined as that area proposed for direct impact by the proposed Project and equaling 8.95 acres [Exhibit 3 – Site Plan Map]. The term *Study Area* includes the Project area, 8.95 acres, and lands proposed for off-site improvements, approximately 1.63 acres, for a Study Area totaling 10.58 acres. For this report, we have assumed that all impacts would be permanent.

The proposed Project consists of an application for a Plot Plan pursuant to the requirements of the site's underlying zoning designations of Manufacturing - Service Commercial (M-SC) and Industrial Park (I-P) to allow for development of the Study Area with one (1) approximately 203,029 SF warehouse building. Associated improvements to the site include auto and truck trailer parking, drive aisles, fire lanes, metal fencing and metal gates, outdoor employee amenity/patio area, landscaping, utility improvements, and roadway improvements to the frontage roadways of Seaton Avenue and Perry Street.

1.4 Relationship of the Study Area 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 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 Study Area to the MSHCP

The Study Area is located within the Mead Valley Area Plan of the MSHCP and is located within the MSHCP Survey Area for Burrowing Owl. The Study Area is not located within the MSHCP Criteria Area; Narrow Endemic Plant Species Survey Area (NEPSSA); Criteria Area Plant Species Survey Area (CASSA); Mammal or Amphibian Survey Areas; or MSHCP Core and Linkage areas [Exhibit 4 – MSHCP Overlay Map].

Within the designated Survey Areas, 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 for 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:

- Delineation of aquatic resources (including wetlands and riparian habitat) subject to the jurisdiction of the Corps, Regional Board, CDFW, and MSHCP riparian/riverine areas and vernal pools policy;
- Performance of general biological surveys;
- Performance of vegetation mapping for the Study Area;
- 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; 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 CNDDDB [CDFW 2019], CNPS 8th edition online inventory (CNPS 2019), Natural Resource Conservation Service soil data (NRCS 2019), 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 Study Area were conducted on foot in the proposed development areas for each target plant or animal species identified below. Table 2-1 provides a summary list of survey dates, survey types and personnel.

Table 2-1. Summary of Biological Surveys for the Study Area

Survey Type	2018 - 2019 Survey Dates	Biologist(s)
General Biological Survey	8/14/2018 3/18/2019	DM SC
Evaluation of Riparian/Riverine Areas	12/10/2018	MR, LLG
Evaluation of Vernal and/or Seasonal Pools	12/10/2018 1/22/2019 3/18/2019	MR, LLG, SC SC SC
Federal and State Jurisdictional Waters	12/10/2018	MR, LLG, SC
Focused Burrowing Owl Surveys	8/14/2018 8/15/2018 8/16/2018 8/20/2018 3/18/2019 3/28/2019 4/10/2019 4/18/2019	DM JS JS JS SC SC SC SC

DM = David Moskovitz, JS = Jillian Stephens, MR = Martin Rasnick, SC = Stephanie Cashin, LLG = Lesley Lokovic Gamber

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:

- Tracked by the CNDDDB; and
- Riparian/riverine and vernal pool resources.

2.1 Botanical Resources

A site-specific survey program was designed to accurately document the botanical resources within the Study Area, 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 Study Area (3) general field reconnaissance survey(s); (4) vegetation mapping; 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. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39) (CNPS 2019); and
- CNDDDB for the USGS 7.5' quadrangle(s): Steele Peak, Riverside West, Riverside East, Sunnymead, Perri, Romoland, Lake Elsinore, Alberhill, and Lake Mathews (CDFW 2019).

2.1.2 Vegetation Mapping

Vegetation communities within the Study Area were mapped according to Holland (1986) when possible. Deviations in nomenclature were made when existing habitat descriptions did not accurately characterize the vegetation communities present. As such, certain vegetation communities were named based on the dominant plant species present. 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 Study Area

A literature search was conducted to obtain a list of special-status plants with the potential to occur within the Study Area. The CNDDDB 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 (CNPS 2019) and the MSHCP (Dudek 2003).

For the MSHCP, the Study Area is not located within the MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA) or Criteria Area Plant Species Survey Area (CAPSSA). As such, focused plant surveys are not required pursuant to the MSHCP.

Based on this information, vegetation profiles and a list of target sensitive plant species and habitats that could occur within the Study Area 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 Study Area; and (4) prepare a map showing the distribution of any sensitive botanical resources associated with the Study Area, if applicable.

2.1.4 Botanical Surveys

GLA biologist Stephanie Cashin visited the site on March 18, 2019 to conduct a general plant survey. The survey was conducted in accordance with accepted botanical survey guidelines (CDFG 2009, CNPS 2001, USFWS 2000). As applicable, survey(s) 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 Study Area. The survey was conducted by following meandering transects within target areas of suitable habitat. All plant species encountered during the field survey was identified and recorded following the above-referenced guidelines adopted by CNPS (2010) and CDFW by Nelson (1984). 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 Study Area 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(s). Study Area 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 Taggart (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 survey(s), habitat assessment(s), 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 Study Area, 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 Study Area, 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 Study Area, 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 Study Area

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

2.2.3 Habitat Assessment for Special-Status Animal Species

GLA biologist(s) Dave Moskovitz) conducted habitat assessments for special-status animal species on August 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 Study Area.

2.2.4 Focused Surveys for Special-Status Animals Species

Burrowing Owl

The Study Area is located within the MSHCP survey area for the burrowing owl (*Athene cunicularia*). GLA biologist(s) (Dave Moskovitz, Jillian Stephens, and Stephanie Cashin) conducted focused surveys for the burrowing owl for all suitable habitat areas within the Study Area. 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. Within areas of suitable habitat, the MSHCP first requires a focused burrow survey to map all potentially suitable burrows. The focused burrow surveys were conducted on August 14, 2018 and March 18, 2019. Focused burrowing owl surveys were conducted on August 14, 15, 16, and 20, 2018 and March 18 and 28, and April 10 and 18, 2019. The burrowing owl survey visits need to be conducted from one hour prior to sunrise to two hours after sunrise or two hours before sunset to one hour after sunset.

Both the burrow and owl 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 5 days after a rain event. Refer to Table 2-2 in Section 2.0 for survey condition details.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Exhibit 7 identifies the approximate transect locations, as well as the 500-foot buffer where areas with potentially suitable offsite habitat were visually inspected from the edge of the Project site using 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 also provides locations of suitable burrows mapped during the transect surveys. 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 (%)
8/14/2018	DM	0630 - 0855	64 -		
8/15/2018	JS	0630 - 0900	65 - 78	0 - 2	Clear
8/16/2018	JS	0615 - 0850	70 - 75	0 - 0	Clear
8/20/2018	JS	0630 - 0825	70 - 72	0 - 1	Clear
3/18/2019	SC	0600 - 0840	55 - 57	0 - 2	Clear
3/28/2019	SC	0615 - 0900	56 - 58	0 - 1	Part Cloudy
4/10/2019	SC	0600 - 0850	55 - 58	8 - 15	Clear
4/18/2019	SC	0550 - 0830	58 - 60		Clear

DM = David Moskovitz, JS = Jillian Stephens, SC = Stephanie Cashin

2.3 Jurisdictional Delineation

Prior to beginning the field delineation, a 200-scale color aerial photograph and the previously cited USGS topographic maps were examined to determine the locations of potential areas of Corps/Regional Board/CDFW jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels 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 Manual¹ (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement)². The presence of an Ordinary High Water Mark (OHWM) was determined using the 2008 Field Guide to Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States³ in conjunction with the Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States.⁴ While in the field the limits of the OHWM, wetlands (if applicable), and CDFW jurisdiction were recorded using GPS technology and/or on copies of the aerial photography. Other data were recorded onto the appropriate datasheets.

2.4 MSHCP Riparian/Riverine Areas and Vernal Pools

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 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 indicators 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.

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.

³ Lichvar, R. W., and S. M. McColley. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TR-08-12. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. (<http://www.crrel.usace.army.mil/library/technicalreports/ERDC-CRREL-TR-08-12.pdf>).

⁴ Curtis, Katherine E. and Robert Lichevar. 2010. Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TN-10-1. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory.

GLA surveyed the Study Area for riparian/riverine areas and vernal pool/seasonal pool habitat, including features with the potential to support fairy shrimp. To assess 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 site was evaluated on multiple occasions during the 2018/2019 rainfall season, including December 10, 2018, January 22, 2019, and March 18, 2019.

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 USFWS and the 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); animal 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 CWA 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)

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 CNDDDB project. Informally listed taxa are not protected but warrant consideration in the preparation of biotic assessments. For some species, the CNDDDB 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

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.

CNPS Rank	Comments
.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 CWA, 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)⁵ as:

- (1) *All waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
- (2) *All interstate waters, including interstate wetlands;*
- (3) *The territorial seas;*
- (4) *All impoundments of waters otherwise identified as waters of the United States under this section;*
- (5) *All tributaries, as defined in paragraph (c)(3) of this section, of waters identified in paragraphs (a)(1) through (3) of this section;*
- (6) *All waters adjacent to a water identified in paragraphs (a)(1) through (5) of this section, including wetlands, ponds, lakes, oxbows, impoundments, and similar waters;*
- (7) *All waters in paragraphs (a)(7)(i) through (v) of this section where they are determined, on a case-specific basis, to have a significant nexus to a water identified in paragraphs (a)(1) through (3) of this section. The waters identified in each of paragraphs (a)(7)(i) through (v) of this section are similarly situated and shall be combined, for purposes of a significant nexus analysis, in the watershed that drains to the nearest water identified in paragraphs (a)(1) through (3) of this section. Waters identified in this paragraph shall not be combined with waters identified in paragraph (a)(6) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (a)(6), they are an adjacent water and no case-specific significant nexus analysis is required.*
 - (i) *Prairie potholes. Prairie potholes are a complex of glacially formed wetlands, usually occurring in depressions that lack permanent natural outlets, located in the upper Midwest.*
 - (ii) *Carolina bays and Delmarva bays. Carolina bays and Delmarva bays are ponded, depressional wetlands that occur along the Atlantic coastal plain.*

⁵ As revised by the Corps and EPA, "Clean Water Rule: Definition of 'Waters of the United States'; Final Rule," 80 Federal Register 124 (29 June, 2015), pp. 37054-37127, redacted October 9, 2015, enjoined and ordered by the U.S. District on August 16, 2018.

- (iii) *Pocosins. Pocosins are evergreen shrub and tree dominated wetlands found predominantly along the Central Atlantic coastal plain.*
 - (iv) *Western vernal pools. Western vernal pools are seasonal wetlands located in parts of California and associated with topographic depression, soils with poor drainage, mild, wet winters and hot, dry summers.*
 - (v) *Texas coastal prairie wetlands. Texas coastal prairie wetlands are freshwater wetlands that occur as a mosaic of depressions, ridges, intermound flats, and mima mound wetlands located along the Texas Gulf Coast.*
- (8) *All waters located within the 100- year floodplain of a water identified in paragraphs (a)(1) through (3) of this section and all waters located within 4,000 feet of the high tide line or ordinary high water mark of a water identified in paragraphs (a)(1) through (5) of this section where they are determined on a case-specific basis to have a significant nexus to a water identified in paragraphs (a)(1) through (3) of this section. For waters determined to have a significant nexus, the entire water is a water of the United States if a portion is located within the 100-year floodplain of a water identified in paragraphs (a)(1) through (3) of this section or within 4,000 feet of the high tide line or ordinary high water mark. Waters identified in this paragraph shall not be combined with waters identified in paragraph (a)(6) of this section when performing a significant nexus analysis. If waters identified in this paragraph are also an adjacent water under paragraph (a)(6), they are an adjacent water and no case-specific significant nexus analysis is required.*

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.

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 a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation 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 manual and 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 National List of Plant Species that Occur in Wetlands⁶);
- 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 1987 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

Section 401 of the CWA requires any applicant for a Section 404 permit to obtain certification from the State that the discharge (and the operation of the facility being constructed) will comply with the applicable effluent limitation and water quality standards. In California, this 401 certification is obtained from the Regional Water Quality Control Board. The Corps, by law, cannot issue a Section 404 permit until a 401 certification is issued or waived.

Subsequent to the SWANCC decision, the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of the SWANCC decision on the Section 401 Water Quality Certification Program.⁷ The memorandum states:

California’s right and duty to evaluate certification requests under section 401 is pendant to (or dependent upon) a valid application for a section 404 permit from the Corps, or another application for a federal license or permit. Thus, if the Corps determines that the water body in question is not subject to regulation under the COE’s 404 program, for instance, no application for 401 certification will be required...

The SWANCC decision does not affect the Porter Cologne authorities to regulate discharges to isolated, non-navigable waters of the states....

Water Code section 13260 requires “any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements).” (Water Code § 13260(a)(1) (emphasis added).) The term “waters of the state” is defined as “any surface water or groundwater, including saline waters, within the boundaries of the state.” (Water Code § 13050(e).) The U.S. Supreme Court’s ruling in SWANCC has no bearing on the Porter-Cologne definition. While all waters of the United States that are within the borders of California are also

⁶ Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 wetland ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.

⁷ Wilson, Craig M. January 25, 2001. Memorandum addressed to State Board Members and Regional Board Executive Officers.

waters of the state, the converse is not true—waters of the United States is a subset of waters of the state. Thus, since Porter-Cologne was enacted California always had and retains authority to regulate discharges of waste into any waters of the state, regardless of whether the COE has concurrent jurisdiction under section 404. The fact that often Regional Boards opted to regulate discharges to, e.g., vernal pools, through the 401 program in lieu of or in addition to issuing waste discharge requirements (or waivers thereof) does not preclude the regions from issuing WDRs (or waivers of WDRs) in the absence of a request for 401 certification....

In this memorandum the SWRCB's Chief Counsel has made the clear assumption that fill material to be discharged into isolated waters of the United States is to be considered equivalent to "waste" and therefore subject to the authority of the Porter Cologne Water Quality Act.⁸

3.3.3 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1617 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.

⁸ On June 17, 2016, the SWRCB issued a draft "Procedures for Discharges of Dredged or Fill Materials to Waters of the State" which provides definitions for wetlands, procedures for jurisdictional delineations, and procedures for obtaining permits for impacts to waters of the State.

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 delineation for Waters of the United States (including wetlands) subject to the jurisdiction of the Corps and Regional Board, and streams (including riparian vegetation) and lakes subject to the jurisdiction of CDFW.

4.1 Existing Conditions

The Study Area includes the Project site and adjacent unimproved road areas proposed for improvements. The Study Area consists of an undeveloped agricultural field that is regularly-disked. The Study Area is bordered by fallow agricultural fields to the north and east. Residential and/or commercial development borders the Study Area to the south and west. Elevation on site ranges from approximately 1,526 to 1,544 feet above mean sea level (AMSL). The Study Area is generally flat with gentle sloping from west to east. The Study Area supports one ephemeral drainage and its ephemeral tributary that generally bisects the property. The Study Area is dominated with ruderal species discussed in more detail below.

4.2 Vegetation Mapping

The Study Area supports the following vegetation types: Disturbed/Developed and Disturbed/Ruderal. Table 4-1 provides a summary of the vegetation types and their corresponding acreage. Descriptions of each vegetation type follow the table. A Vegetation Map is attached as Exhibit 5. Photographs depicting the Study Area are shown in Exhibit 6.

Table 4-1. Summary of Vegetation/Land Use Types for the Study Area

VEGETATION/LAND USE TYPE	STUDY AREA (acres)
Disturbed/Developed	0.83
Disturbed/Ruderal	9.75
Total	10.58

Disturbed/Developed

The Study Area supports 0.83 acre of disturbed/developed lands, including 0.21 acre on-site and 0.62 acres off-site [Exhibit 6]. These areas consist of unpaved vehicular access roads.

Disturbed/Ruderal

The Study Area supports 9.75 acres of disturbed/ruderal lands, including 8.74 acres of on-site areas and 1.01 acres off-site improvement areas. These lands cover the majority of the Study Area, including the entire portion of the Project site. The Study Area appears to be routinely disked for weed abatement. Dominant plant species observed included common fiddleneck (*Amsinckia intermedia*), stinknet (*Oncosiphon piluliferum*), London rocket (*Sisymbrium irio*), yellow-berried nightshade (*Solanum crassifolia*), longbeak stork's bill (*Erodium botrys*), cheeseweed (*Malva parviflora*), ripgut grass (*Bromus diandrus*), red brome (*Bromus madritensis*

ssp. *rubens*), common sunflower (*Helianthus annuus*), Russian thistle (*Salsola australis*), Bermuda grass (*Cynodon dactylon*), tree tobacco (*Nicotiana glauca*), clustered tarweed (*Deinandra fasciculata*), castor bean (*Ricinus communis*), smooth cat's ear (*Hypochaeris glabra*), burclover (*Medicago polymorpha*), rough pigweed (*Amaranthus retroflexus*), radish (*Raphanus sativus*), sow thistle (*Sonchus asper*), and California goldfields (*Lasthenia californica*).

4.3 Special-Status Vegetation Communities

The CNDDDB identifies the following seven special-status vegetation communities for the Steele Peak and surrounding eight quads, including Riverside West, Riverside East, Sunnymead, Perris, Romoland, Lake Elsinore, Alberhill, and Lake Mathews Quadrangle maps: canyon live oak ravine forest, Southern California arroyo chub/ Santa Ana sucker stream, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern riparian forest, southern sycamore alder riparian forest, and southern willow scrub. The Study Area does not contain any special-status vegetation types, including those identified by the CNDDDB.

4.4 Special-Status Plants

No special-status plants were detected within the Study Area. Table 4-2 provides a list of special-status plants evaluated for the Study Area through general biological surveys and habitat assessment. Species were evaluated based on the following factors: 1) species identified by the CNDDDB and CNPS as occurring (either currently or historically) on or in the vicinity of the Study Area, 2) applicable MSHCP survey areas, and 3) any other special-status plants that are known to occur within the vicinity of the Study Area, or for which potentially suitable habitat occurs within the site.

Table 4-2. Special-Status Plants Evaluated for the Study Area

Species Name	Status	Habitat Requirements	Occurrence
Brand's star phacelia <i>Phacelia stellaris</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP(b)	Coastal dunes and coastal sage scrub.	Does not occur.
Buxbaum's sedge <i>Carex buxbaumii</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Bogs and fens, Meadows and seeps (mesic) and marshes and swamps.	Does not occur.
California Orcutt grass <i>Orcuttia californica</i>	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: MSHCP(b)	Vernal pools	Does not occur.
California screw moss <i>Tortula californica</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: None	Sandy soil in chenopod scrub, and valley and foothill grassland.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Chaparral ragwort <i>Senecio aphanactis</i>	Federal: None State: None CNPS: Rank 2B.2 MSHCP: None	Chaparral, cismontane woodland, coastal scrub. Sometimes associated with alkaline soils.	Does not occur.
Chaparral sand-verbena <i>Abronia villosa</i> var. <i>aurita</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Sandy soils in chaparral, coastal sage scrub.	Does not occur.
Cleveland's bush monkeyflower <i>Diplacus (Mimulus) clevelandii</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP(f)	Gabbroic soils, often in disturbed areas, openings, rocky. Chaparral, cismontane woodland, lower montane coniferous forest.	Does not occur.
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP(d)	Playas, vernal pools, marshes and swamps (coastal salt).	Does not occur.
Coulter's matilija poppy <i>Romneya coulteri</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Often in burns in chaparral and coastal scrub.	Does not occur.
Davidson's saltscale <i>Atriplex serenana</i> var. <i>davidsonii</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP(d)	Alkaline soils in coastal sage scrub, coastal bluff scrub.	Does not occur.
Felt-leaved monardella <i>hypoleuca</i> ssp. <i>lanata</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: None	Chaparral and cismontane woodland	Does not occur.
Graceful tarplant <i>Holocarpha virgata</i> ssp. <i>elongata</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland.	Does not occur.
Hall's monardella <i>Monardella macrantha</i> ssp. <i>hallii</i>	Federal: None State: None CNPS: Rank 1B.3 MSHCP: MSHCP	Occurs on dry slopes and ridges within openings in broadleaved upland forest, chaparral, lower montane coniferous forest, cismontane woodland, and valley and foothill grassland.	Does not occur.
Heart-leaved pitcher sage <i>Lepechinia cardiophylla</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP(d)	Closed-cone coniferous forest, chaparral, and cismontane woodland.	Does not occur.
Intermediate mariposa-lily <i>Calochortus weedii</i> var. <i>intermedius</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP	Rocky soils in chaparral, coastal sage scrub, valley and foothill grassland.	Does not occur.
Intermediate monardella <i>Monardella hypoleuca</i> ssp. <i>intermedia</i>	Federal: None State: None CNPS: Rank 1B.3 MSHCP: None	Usually in the understory of chaparral, cismontane woodland, and lower montane coniferous forest (sometimes)	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Little mouse-tail <i>Myosurus minimus</i> ssp. <i>apus</i>	Federal: None State: None CNPS: Rank 3.1 MSHCP: MSHCP(d)	Valley and foothill grassland, vernal pools (alkaline soils).	Does not occur.
Long-spined spineflower <i>Chorizanthe polygonoides</i> var. <i>longispina</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands	Does not occur.
Many-stemmed dudleya <i>Dudleya multicaulis</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP(b)	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	Does not occur.
Marsh sandwort <i>Arenaria paludicola</i>	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: None	Bogs and fens, freshwater marshes and swamps.	Does not occur.
Mesa horkelia <i>cuneata</i> var. <i>puberula</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Sandy or gravelly soils in chaparral (maritime), cismontane woodland, and coastal scrub.	Does not occur.
Munz's onion <i>Allium munzii</i>	Federal: FE State: ST CNPS: Rank 1B.1 MSHCP: MSHCP(b)	Clay soils in chaparral, coastal sage scrub, and valley and foothill grasslands	Does not occur.
Nevin's barberry <i>Berberis nevinii</i>	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: MSHCP(d)	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub.	Does not occur.
Ocellated humboldt lily <i>Lilium humboldtii</i> ssp. <i>ocellatum</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP(f)	Chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, riparian woodland. Occurring in openings.	Does not occur.
Palmer's grapplinghook <i>Harpagonella palmeri</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Chaparral, coastal sage scrub, valley and foothill grassland. Occurring in clay soils.	Does not occur.
Paniculate tarplant <i>Deinandra paniculata</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Usually in vernal mesic, sometimes sandy soils in coastal scrub, valley and foothill grassland, and vernal pools.	Confirmed Absent. This species, if present should have been detectable and the site was specifically checked for it.
Parish's brittlescale <i>Atriplex parishii</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP(d)	Chenopod scrub, playas, vernal pools.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Parry's spineflower <i>Chorizanthe parryi</i> var. <i>parryi</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	Does not occur.
Payson's jewelflower <i>Caulanthus simulans</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Sandy or granitic soils in chaparral and coastal scrub.	Does not occur.
Peninsular spineflower <i>Chorizanthe leptotheca</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Alluvial fan, granitic. Chaparral, coastal scrub, lower montane coniferous forest.	Does not occur.
Plummer's mariposa lily <i>Calochortus plummerae</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Granitic, rock soils within chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, valley and foothill grassland.	Does not occur.
Robinson's pepper grass <i>Lepidium virginicum</i> var. <i>robinsonii</i>	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Chaparral, coastal sage scrub	Does not occur.
Salt marsh bird's-beak <i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	Federal: FE State: SE CNPS: Rank 1B.2 MSHCP: None	Coastal dune, coastal salt marshes and swamps.	Does not occur.
San Bernardino aster <i>Symphyotrichum defoliatum</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: None	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic).	Does not occur.
San Diego ambrosia <i>Ambrosia pumila</i>	Federal: FE State: None CNPS: Rank 1B.1 MSHCP: MSHCP(b)	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools. Often in disturbed habitats.	Does not occur.
San Diego sagewort <i>Artemisia palmeri</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Sandy and mesic soils in chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland.	Does not occur.
San Jacinto Valley crownscale <i>Atriplex coronata</i> var. <i>notatior</i>	Federal: FE State: None CNPS: Rank 1B.1 MSHCP: MSHCP(d)	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools.	Does not occur.
San Miguel savory <i>Clinopodium chandleri</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP(b)	Rocky, gabbroic, or metavolcanic soils in chaparral, cismontane woodland, coastal sage scrub, riparian woodland, valley and foothill grassland.	Does not occur.
Santa Ana River woolly star <i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: MSHCP	Alluvial fan sage scrub, chaparral. Occurring on sandy or rocky soils.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Slender-horned spineflower <i>Dodecahema leptoceras</i>	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: MSHCP(b)	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	Does not occur.
Smooth tarplant <i>Centromadia pungens</i> ssp. <i>laevis</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP(d)	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill grasslands, disturbed habitats.	Does not occur.
Snake cholla <i>Cylindropuntia californica</i> var. <i>californica</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Chaparral, coastal sage scrub.	Does not occur.
South coast saltscale <i>Atriplex pacifica</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: None	Coastal bluff scrub, coastal dunes, coastal sage scrub, playas.	Does not occur.
Southern California black walnut <i>Juglans californica</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Chaparral, cismontane woodland, coastal sage scrub, alluvial surfaces.	Does not occur.
Spreading navarretia <i>Navarretia fossalis</i>	Federal: FT State: None CNPS: Rank 1B.1 MSHCP: MSHCP(b)	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	Does not occur.
Sticky dudleya <i>Dudleya viscida</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP(f)	Coastal bluff scrub, chaparral, coastal sage scrub. Occurring on rocky soils.	Does not occur.
Tecate cypress <i>Hesperocyparis forbesii</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Closed-cone coniferous forest, chaparral.	Does not occur.
Thread-leaved brodiaea <i>Brodiaea filifolia</i>	Federal: FT State: SE CNPS: Rank 1B.1 MSHCP: MSHCP(d)	Clay soils in chaparral (openings), cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools.	Does not occur.
Vernal barley <i>Hordeum intercedens</i>	Federal: None State: None CNPS: Rank 3.2 MSHCP: MSHCP	Coastal dunes, coastal sage scrub, valley and foothill grassland (saline flats and depressions), vernal pools.	Does not occur.
Western spleenwort <i>Asplenium vespertinum</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Rocky soils in chaparral, cismontane woodland, and coastal scrub.	Does not occur.
White rabbit-tobacco <i>Pseudognaphalium leucocephalum</i>	Federal: None State: None CNPS: Rank 2B.2 MSHCP: None	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Woven-spored lichen <i>Texosporium sancti-jacobi</i>	Federal: None State: None CNPS: Rank 3 MSHCP: None	On soil, small mammal pellets, dead twigs, and on <i>Selaginella</i> spp. Chaparral (openings).	Does not occur.
Wright's trichocoronis <i>Trichocoronis wrightii</i> var. <i>wrightii</i>	Federal: None State: None CNPS: Rank 2B.1 MSHCP: MSHCP(b)	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	Does not occur.

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)

MSHCP

MSHCP = No additional action necessary
MSHCP(a) = Surveys may be required as part of wetlands mapping
MSHCP(b) = Surveys may be required within the Narrow Endemic Plant Species survey area
MSHCP(c) = Surveys may be required within locations shown on survey maps
MSHCP(d) = Surveys may be required within Criteria Area
MSHCP(e) = Conservation requirements identified in species-specific conservation objectives need to be met before classified as a Covered Species
MSHCP(f) = Covered species when a Memorandum of Understanding is executed with the Forest Service Land

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

4.4.1 Special-Status Plants Detected at the Study Area

No special-status plants were detected within the Study Area. The Study Area is not located within NEPSSA or CASSA and is not expected to support special-status plant species that could potentially pose a significance under CEQA.

4.5 Special-Status Animals

No special-status animals were detected within the Study Area. Burrowing owls were confirmed absent through focused surveys. The site does not contain suitable habitat for other species requiring assessments pursuant to the MSHCP. The site lacks riparian habitat with the potential to support the least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. The site does not contain suitable habitat for any species of fairy shrimp, including listed species. No ponding was observed at the site during biological surveys, including those that occurred following periods of substantial rainfall. The site lacks the suitable topography (including localized depressions) to support prolonged inundation necessary to support fairy shrimp. The site slopes slightly from west to east, with the central portion of the site containing drainage features that convey flows from west to east. As a result of the sloping topography and drainage, there is no opportunity for water to pond at the site. Furthermore, the site does not contain any artificial depressional features, including tire tracks and stock ponds that could support prolonged inundation. In addition, the site is mapped as containing sandy loam soils, which are generally not associated with vernal pools. Observations of the soils at the site showed a lack of clay soil components.

Table 4-3 provides a list of special-status animals evaluated for the Study Area 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 Study Area, 2) applicable MSHCP survey areas, and 3) any other special-status animals that are known to occur within the vicinity of the Study Area, for which potentially suitable habitat occurs on the site.

Table 4-3. Special-Status Animals Evaluated for the Study Area

Species Name	Status	Habitat Requirements	Occurrence
Invertebrates			
Quino checkerspot butterfly <i>Euphydryas editha quino</i>	Federal: FE State: None MSHCP: Covered	Larval and adult phases each have distinct habitat requirements tied to host plant species and topography. Larval host plants include <i>Plantago erecta</i> and <i>Castilleja exserta</i> . Adults occur on sparsely vegetated rounded hilltops and ridgelines and are known to disperse through disturbed habitats to reach suitable nectar plants.	Does not occur
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	Federal: FE State: None MSHCP: MSHCP(a)	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	Does not occur due to a lack of suitable depressional ponding features based on the topography of the site, drainage across the property, and the lack of appropriate soils.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	Federal: FT State: None MSHCP: MSHCP(a)	Seasonal vernal pools	Does not occur due to a lack of suitable depressional ponding features based on the topography of the site, drainage across the property, and the lack of appropriate soils.
Amphibians			
Western spadefoot <i>Spea hammondi</i>	Federal: None State: SSC MSHCP: Covered	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Seasonal depressions are absent from the Study Area; therefore, no potential breeding habitat for this species occurs within the Project.
Reptiles			
California glossy snake <i>Arizona elegans occidentalis</i>	Federal: None State: SSC MSHCP: Not Covered	Inhabits arid scrub, rocky washes, grasslands, chaparral.	Does not occur
Coastal whiptail <i>Aspidoscelis tigris stejnegeri (multiscutatus)</i>	Federal: None State: SSC MSHCP: Covered	Open, often rocky areas with little vegetation, or sunny microhabitats within shrub or grassland associations.	Not expected to occur on site.
Coast horned lizard <i>Phrynosoma blainvillii</i>	Federal: None State: SSC MSHCP: Covered	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual	Not expected to occur on site.

Species Name	Status	Habitat Requirements	Occurrence
		grassland, oak woodland, and riparian woodlands.	
Coast patch-nosed snake <i>Salvadora hexalepis virgultea</i>	Federal: None State: SSC MSHCP: Not Covered	Occurs in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas.	Does not occur
Orangethroat whiptail <i>Aspidoscelis hyperythra</i>	Federal: None State: WL MSHCP: Covered	Coastal sage scrub, chaparral, non-native grassland, oak woodland, and juniper woodland.	Not expected to occur on site.
Red-diamond rattlesnake <i>Crotalus ruber</i>	Federal: None State: SSC MSHCP: Covered	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Does not occur
San Bernardino ringneck snake <i>Diadophis punctatus modestus</i>	Federal: None State: None MSHCP: Not Covered	Moist habitats including woodlands, forest, grasslands, chaparral, farms, and gardens.	Does not occur
Southern California legless lizard <i>Anniella stebbinsi</i>	Federal: None State: SSC MSHCP: MSHCP(f)	Broadleaved upland forest, chaparral, coastal dunes, coastal scrub; found in a broader range of habitats than any of the other species in the genus. Often locally abundant, specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans	Not expected to occur on site.
Western pond turtle <i>Emys marmorata</i>	Federal: None State: SSC MSHCP: Covered	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
Birds			
Bald eagle (nesting & wintering) <i>Haliaeetus leucocephalus</i>	Federal: Delisted State: SE, FP MSHCP: Covered	Primarily in or near seacoasts, rivers, swamps, and large lakes. Perching sites consist of large trees or snags with heavy limbs or broken tops.	Does not occur
Bell's sage sparrow <i>Artemisospiza belli belli</i>	Federal: BCC State: WL MSHCP: Covered	Chaparral and coastal sage scrub along the coastal lowlands, inland valleys,	Does not occur

Species Name	Status	Habitat Requirements	Occurrence
		and in the lower foothills of local mountains.	
Burrowing owl (burrow sites & some wintering sites) <i>Athene cunicularia</i>	Federal: BCC State: SSC MSHCP: MSHCP(c)	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.	Low potential to occur on site. A few suitable burrows occur on site. No evidence of occupation detected. Species historically known to occur within the general project vicinity.
California black rail <i>Laterallus jamaicensis coturniculus</i>	Federal: BCC State: ST, FP MSHCP: Not Covered	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation.	Does not occur
Coastal California gnatcatcher <i>Poliophtila californica californica</i>	Federal: FT State: SSC MSHCP: Covered	Low elevation coastal sage scrub and coastal bluff scrub.	Does not occur
Ferruginous hawk (wintering) <i>Buteo regalis</i>	Federal: BCC State: WL MSHCP: Covered	Open, dry country, perching on trees, posts, and mounds. In California, wintering habitat consists of open terrain and grasslands of the plains and foothills.	Not observed during general biological surveys. Low potential for occurrence within the Study Area for winter foraging. Does not nest in California.
Golden eagle (nesting & wintering) <i>Aquila chrysaetos</i>	Federal: BCC State: WL, FP MSHCP: Covered	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Does not occur
Least Bell's vireo (nesting) <i>Vireo bellii pusillus</i>	Federal: FE State: SE MSHCP: MSHCP(a)	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Does not occur
Loggerhead shrike (nesting) <i>Lanius ludovicianus</i>	Federal: BCC State: SSC MSHCP: Covered	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	Low potential to forage on site.

Species Name	Status	Habitat Requirements	Occurrence
		beach with scattered shrubs.	
Long-eared owl (nesting) <i>Asio otus</i>	Federal: None State: SSC MSHCP: Covered	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
Northern harrier (nesting) <i>Circus cyaneus</i>	Federal: None State: SSC MSHCP: Covered	A variety of habitats, including open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands.	Low potential to forage on site. No potential for nesting.
Swainson's hawk (nesting) <i>Buteo swainsoni</i>	Federal: BCC State: ST MSHCP: Covered	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.	Not observed during general biological surveys. The Study Area does not occur within the nesting range for the Swainson's hawk. Low potential to occur in a foraging role during migration.
Tricolored blackbird (nesting colony) <i>Agelaius tricolor</i>	Federal: BCC State: CE, SSC MSHCP: Covered	Breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or agricultural cropland.	Does not occur
Western snowy plover (nesting) <i>Charadrius alexandrinus nivosus</i>	Federal: FT, BCC State: SSC MSHCP: Not Covered	Sandy or gravelly beaches along the coast, estuarine salt ponds, alkali lakes, and at the Salton Sea.	Does not occur
Western yellow-billed cuckoo (nesting) <i>Coccyzus americanus occidentalis</i>	Federal: FT, BCC State: SE MSHCP: MSHCP(a)	Dense, wide riparian woodlands with well-developed understories.	Does not occur
White-tailed kite (nesting) <i>Elanus leucurus</i>	Federal: None State: FP MSHCP: Covered	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Foraging only.
Yellow rail <i>Coturnicops noveboracensis</i>	Federal: BCC State: SSC MSHCP: Not Covered	Shallow marshes, and wet meadows; in winter, drier freshwater and brackish marshes, as well as dense, deep grass, and rice fields.	Does not occur
Yellow warbler (nesting) <i>Setophaga petechia</i>	Federal: BCC State: SSC MSHCP: Covered	Breed in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or	Does not occur

Species Name	Status	Habitat Requirements	Occurrence
		willows and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, forages in woodland, forest, and shrub habitats.	
Yellow-breasted chat (nesting) <i>Icteria virens</i>	Federal: None State: SSC MSHCP: Covered	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Does not occur
Mammals			
American badger <i>Taxidea taxus</i>	Federal: None State: SSC MSHCP: Not Covered	Most abundant in drier open stages of most scrub, forest, and herbaceous habitats, with friable soils.	Does not occur
Dulzura pocket mouse <i>Chaetodipus californicus femoralis</i>	Federal: None State: SSC MSHCP: Not Covered	Coastal scrub, grassland, and chaparral, especially at grass-chaparral edges	Does not occur
Los Angeles pocket mouse <i>Perognathus longimembris brevinasus</i>	Federal: None State: SSC MSHCP: MSHCP(c)	Fine, sandy soils in coastal sage scrub and grasslands.	Does not occur
Northwestern San Diego pocket mouse <i>Chaetodipus fallax fallax</i>	Federal: None State: SSC MSHCP: Covered	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Does not occur
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	Federal: None State: SSC WBWG: M MSHCP: Not Covered	Rocky areas with high cliffs in pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian.	Does not occur
San Bernardino kangaroo rat <i>Dipodomys merriami parvus</i>	Federal: FE State: SSC MSHCP: MSHCP(c)	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
San Diego black-tailed jackrabbit <i>Lepus californicus bennettii</i>	Federal: None State: SSC MSHCP: Covered	Occupies a variety of habitats but is most common among shortgrass habitats. Also occurs in sage scrub but needs open habitats.	Not expected to occur
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	Federal: None State: SSC MSHCP: Covered	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Does not occur
Southern grasshopper mouse	Federal: None State: SSC	Desert areas, especially scrub habitats with friable	Not expected to occur

Species Name	Status	Habitat Requirements	Occurrence
<i>Onychomys torridus ramona</i>	MSHCP: Not Covered	soils for digging. Prefers low to moderate shrub cover.	
Stephens' kangaroo rat <i>Dipodomys stephensi</i>	Federal: FE State: ST MSHCP: MSHCP/SKR HCP Covered	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Low potential for occurrence due to existing disturbed site conditions.
Western mastiff bat <i>Eumops perotis californicus</i>	Federal: None State: SSC WBWG: H MSHCP: Not Covered	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.	Does not occur
Western yellow bat <i>Lasiurus xanthinus</i>	Federal: None State: SSC WBWG: H MSHCP: Not Covered	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
Yuma myotis <i>Myotis yumanensis</i>	Federal: None State: None WBWG: LM MSHCP: Not Covered	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	Does not occur

STATUS

Federal

FE – Federally Endangered

FT – Federally Threatened

FPT – Federally Proposed Threatened

FC – Federal Candidate

BGEPA– Bald and Golden Eagle Protection Act

State

SE – State Endangered

ST – State Threatened

SC– State Candidate

CFP – California Fully-Protected Species

SSC – Species of Special Concern

MSHCP

MSHCP = No additional action necessary

MSHCP(a) = Surveys may be required as part of wetlands mapping

MSHCP(b) = Surveys may be required within the Narrow Endemic Plant Species survey area

MSHCP(c) = Surveys may be required within locations shown on survey maps

MSHCP(d) = Surveys may be required within Criteria Area

MSHCP(e) = Conservation requirements identified in species-specific conservation objectives need to be met before classified as a Covered Species

MSHCP(f) = Covered species when a Memorandum of Understanding is executed with the Forest Service Land

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 Not Observed but with a Potential to Occur at the Study Area

Birds

Burrowing Owl (*Athene cunicularia*) - The burrowing owl is designated as a CDFW Species of Special Concern and a covered species under the MSHCP.

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 may also use golf courses, cemeteries, road allowances within cities, airports, vacant lots in residential areas and university campuses, fairgrounds, abandoned buildings, and irrigation ditches (Haug, *et al.* 1993). They may also occur in forb and open shrub stages of pinyon-juniper and ponderosa pine habitats (Zeiner, *et al.* 1990). 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. They may also dig their own burrow in soft, friable soil (as found in Florida) and may also use pipes, culverts, and nest boxes where burrows are scarce (Robertson 1929). The mammal burrows are modified and enlarged. One burrow is typically selected for use as the nest, however, satellite burrows are usually found within the immediate vicinity of the nest burrow within the defended territory of the owl.

The Study Area occurs within the MSHCP survey area for the burrowing owl, as such focused surveys were conducted during the 2018 and 2019 nesting seasons pursuant to the MSHCP. Burrowing owls were not detected within the Study Area during focused surveys conducted by GLA. The Study Area does contain potentially suitable habitat for burrowing owls, including a few California ground squirrel (*Otospermophilus beecheyi*) burrows located near a rocky out crop on site and along the road, but none exhibited any evidence of burrowing owl occupation

(e.g., cast pellets, preened feathers, or whitewash clustered at a burrow) [Exhibit 7 – Burrowing Owl Survey Area Map].

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).

The Study Area supports approximately 9.75 acres of potential foraging within disturbed/ruderal habitat with no potential nesting habitat. The loggerhead shrike was not detected during the 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; MacWhirter and Bildstein 1996). It uses tall grasses and forbs in wetlands, or at wetland/field borders for cover; it roosts on the ground (Bent 1937). It is mostly found in flat, or hummocky, open areas of tall, dense grasses, moist or dry shrubs, and edges for nesting, cover, and feeding (Bent 1937). While it seems to prefer to nest in the vicinity of marshes, rivers, or ponds, it may be found nesting in grassy valleys or on grass and sagebrush flats many miles from the nearest water (Call 1978). 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 California population has decreased in recent decades (Grinnell and Miller 1944, Remsen 1978), but can be locally abundant where suitable habitat remains free of disturbance, especially from intensive agriculture. In both wetland and upland areas, the densest populations typically are associated with large tracts of undisturbed habitats dominated by thick vegetative growth (MacWhirter and Bildstein 1996).

The Study Area supports approximately 9.75 acres of potential foraging within disturbed/ruderal habitat, but there is no potential nesting habitat. The northern harrier was not detected during the biological surveys.

Swainson's Hawk (*Buteo swainsonii*) – The Swainson's hawk is listed as Threatened by the state and is also designated as a CDFW Species of Special Concern for nesting. It is also a covered species under the MSHCP without additional survey or conservation requirements. The Swainson's hawk does not breed in western Riverside County but does migrate through as a transient in the spring and fall and may occasionally winter within the area.

The Study Area supports approximately 9.75 acres of potential foraging within disturbed/ruderal habitat. The Swainson's hawk was not detected during the biological surveys.

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). The white-tailed kite uses trees with dense canopies for cover and the specific plant associations seem to be unimportant with the vegetation structure and prey abundance apparently more important (Dunk 1995). In California's Sacramento Valley, the kite has increased predominantly in irrigated agricultural areas where the California meadow mouse occurs (Warner and Rudd 1975). In Southern California, it also roosts in saltgrass and Bermuda grass. It uses herbaceous lowlands with variable tree growth, shrubs, sparse chaparral, almost any upland with sparse cover of shrubs to grassland with a dense population of voles (Waian and Stendell 1970). Substantial groves of dense, broad-leaved deciduous trees are used for nesting and roosting (Brown and Amadon 1968).

The Study Area supports approximately 9.75 acres of potential foraging habitat within disturbed/ruderal habitat with no potential nesting habitat. The white-tailed kite was not detected during the biological surveys.

Mammals

Stephens' Kangaroo Rat (*Dipodomys stephensi*) – Stephens' kangaroo rat (SKR) is a federally Endangered species and a state Threatened species. The Study Area is located within the Fee Area Boundary of the SKR Habitat Conservation Plan (HCP). Within the Fee Area, suitable habitat is assumed to be occupied and focused surveys are not required. Take authorization for SKR is authorized through the HCP.

The SKR has a relatively small geographic range (about 1,108 sq. miles) for a mammal species and is restricted to Riverside County and adjacent northern-central San Diego County, California (Bleich 1977; USFWS 1997). The SKR is found almost exclusively in open grasslands or sparse shrublands with cover of less than 50 percent during the summer (*e.g.*, Bleich 1973; Bleich and Schwartz 1974; Grinnell 1933; Lackey 1967; O'Farrell 1990; Thomas 1973). O'Farrell (1990) further clarified this association and argues that the proportion of annual forbs and grasses is important because SKR avoid dense grasses (for example, non-native bromes [*Bromus* spp.]) and are more likely to inhabit areas where the annual forbs disarticulate in the summer and leave more open areas.

Although the Study Area is disturbed and no burrows or evidence of occupation was detected, the Study Area contains an estimated 9.75 acres of potential habitat for the SKR within

disturbed/ruderal habitat and therefore, the SKR may be present, but again is mitigated through fee payments to the County of Riverside under the SKR HCP.

4.6 Raptor Use

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 County are covered species under the MSHCP, with the MSHCP providing the necessary conservation to offset project impacts to foraging and/or 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.

The Study Area provides marginal foraging habitat for raptors, including several special-status raptors. During general and focused biological surveys, red-tailed hawk and American kestrel were detected within or adjacent to the Study Area. The American kestrel specifically utilized the site for foraging and was detected nesting adjacent to the site. The Study Area is surrounded by a mix of residential and commercial development and undeveloped land. Some small mammal burrows were detected including a few California ground squirrel burrows and the Study Area does support habitat for lizards, snakes, invertebrates. The Study Area is frequently disked for weed abatement.

4.7 Nesting Birds

The Study Area contains ground cover that provide suitable habitat for nesting native birds. Intending to harm or inducing mortality of native birds (including the taking of eggs) is prohibited under the California Fish and Game Code.⁹

Common bird species observed on the Study Area included California horned lark (*Eremophila alpestris*), western meadowlark (*Sternella neglecta*), white-crowned sparrow (*Zonotrichia leucophrys*), savannah sparrow (*Passerculus sandwichensis*), Say's phoebe (*Sayornis saya*), and American kestrel.

Birds anticipated to nest in the Study Area would be those that are common to disturbed grassland habitats and include California horned lark and western meadowlark.

⁹ 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.

4.8 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 Study Area is not identified by the MSHCP within a linkage or corridor. In addition, the Study Area does not contain the structural topography and vegetative cover that facilitate regional wildlife movement.

4.9 Critical Habitat

The Study Area is not located within proposed or designated Critical Habitat.

4.10 Jurisdictional Delineation

4.10.1 Corps Jurisdiction

Waters of the U.S. (WoUS) subject to Corps jurisdiction associated with the Study Area are limited to Drainage A and Tributary A-1 which bisects the generally flat portion of the property. Corps jurisdiction associated with the Study Area totals 0.28 acre of non-wetland WoUS, and a total of 1,202 linear feet of streambed is present. The extent of WoUS is depicted on Exhibit 8A.

4.10.2 Regional Board Jurisdiction

Regional Board jurisdictional is equal to Corps jurisdictional waters subject to regulation pursuant to Section 401 and 404 of the CWA and do not need to be addressed separately pursuant to Section 13260 of the CWC, the Porter-Cologne Act.

4.10.3 CDFW Jurisdiction

CDFW jurisdiction associated with the Study area totals 0.31 acres, all of which consists of non-riparian streambed. A total of 1,202 linear feet of streambed is present. The extent of CDFW jurisdiction and impacts is depicted on Exhibit 8B.

4.11 MSHCP Riparian/Riverine Areas and Vernal Pools

Vegetation communities associated with riparian systems and vernal pools are depleted natural vegetation communities because, similar to coastal sage scrub, they have declined throughout Southern California during past decades. In addition, they support a large variety of special-status wildlife species. Most species associated with riparian/riverine are covered species under the MSHCP (under Section 6.1.2 of the Plan). The MSHCP has specific policies and procedures regarding the evaluation and conservation of riparian/riverine resources (including riparian vegetation) and vernal pools because it supports MSHCP covered species. Thus, the MSHCP classification of riparian/riverine includes both riparian (depleted natural vegetation communities) as well as ephemeral drainages that are natural in origin but may lack riparian vegetation.

The riparian/riverine jurisdiction in the Study area is identical to that of CDFW jurisdiction. It totals 0.31 acre of riverine area, none of which consists of wetlands or riparian habitat, and includes 1,202 linear feet of ephemeral streambed. Refer to Section 4.9 for a full summary.

No vernal or seasonal pools are present within the Study area. As discussed above, no ponding was observed at the site during biological surveys, including those that occurred following periods of substantial rainfall. The site lacks the suitable topography (including localized depressions) to support prolonged inundation necessary to support fairy shrimp. The site slopes slightly from west to east, with the central portion of the site containing drainage features that convey flows from west to east. As a result of the sloping topography and drainage, there is no opportunity for water to pond at the site. Furthermore, the site does not contain any artificial depressional features, including tire tracks and stock ponds that could support prolonged inundation. In addition, the site is mapped as containing sandy loam soils, which are generally not associated with vernal pools. Observations of the soils at the site showed a lack of clay soil components. Lastly, no plants were observed at the site that are associated with vernal pools and similar habitats that experience prolonged inundation.

5.0 IMPACT ANALYSIS

The following discussion examines the potential impacts to plant and wildlife resources that would occur as a result 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 off site 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 proposed Project would permanently impact, both on- and off-site, approximately 10.58 acres of disturbed habitat types, including disturbed/developed and disturbed/ruderal, none of which are native or special-status vegetation communities [Exhibit 5]. The proposed permanent removal of 0.83 acre of disturbed/developed and 9.75 acres of disturbed/ruderal vegetation

would not be a significant impact under CEQA. Table 5-1 provides a summary of vegetation community impacts.

Table 5-1. Summary of Vegetation/Land Use Impacts

VEGETATION Type	Project Site (acres) 100% Removal	Off-Site (acres) 100% Removal	Study Area (acres) 100% Removal
Disturbed/Developed	0.21	0.62	0.83
Disturbed/Ruderal	8.74	1.01	9.75
Total	8.95	1.63	10.58

5.3 Impacts to Special-Status Plants

Sections 6.1.3 and 6.3.2 of the MSHCP require that projects avoid 90% of areas providing long-term conservation value for applicable species when NEPSSA and/or CASSA species are detected. If avoidance is infeasible, then mitigation must be provided and a Determination of Biologically Equivalent or Superior Preservation (DBESP) is required. Where potentially significant, impacts to special-status plants are reduced to below a level of significance through compliance with the biological requirements of the MSHCP.

The Study Area is not located within an MSHCP NEPSSA or CASSA. The Study Area is not expected to support special-status plant species that could pose a potentially significant impact under CEQA due to the lack of native vegetation community and highly disturbed nature resulting from decades-long ongoing human disturbance. Therefore, impacts to special status plant species would not occur as a result of development of the proposed Project or off-site road improvement area.

5.4 Impacts to Special-Status Animals

5.4.1 Impacts to Listed Species

The proposed Project may result in the loss of habitat that supports SKR and Swainson's hawk. Although not confirmed present, SKR and Swainson's hawk have the potential to occur at the Study Area and if present to be impacted by the Project.

SKR. An estimated 9.75 acres of potential habitat for SKR occurs within the Study Area. No potential SKR burrows or evidence of occupation (including burrows, scat, tail drags, or dust baths) were detected in the Study Area; however, there is very low potential for SKR. Impacts to SKR occupied habitat could be a potentially significant impact under CEQA. However, the Study Area occurs within the SKR HCP Plan Area and the SKR Fee Assessment Area. All projects located within Fee Assessment Area are required to pay the SKR fee, which mitigates any impacts to SKR, thus reducing any potential impacts to SKR to a less than significant level.

Swainson's Hawk. Development of the proposed Project would remove 9.75 acres of potential foraging habitat for migrating Swainson's hawks during spring/fall and winter (foraging role only). Although this species is listed as Threatened by the state of California, CESA does not protect migrant habitat unless the habitat supports breeding/nesting, thus protection under CESA

wouldn't be triggered by the Project. Furthermore, the removal of this amount of potential foraging habitat would not be a significant impact under CEQA due to the available foraging habitat for this species within the vicinity of the Project. The number of individual Swainson's hawks potentially affected would be very low. Regardless, the loss of foraging habitat for Swainson's hawk would be mitigated through compliance and fee payments with and through the MSHCP.

5.4.2 Impacts to Non-Listed Species

In addition to the listed species discussed above, the proposed Project would impact habitat for the following non-listed, special-status species that have potential to occur, but that are covered by the MSHCP: 1) Birds: burrowing owl, loggerhead shrike (foraging role only), northern harrier hawk (foraging role only), and white-tailed kite (foraging role only).

The Study Area does occur within the MSHCP burrowing owl survey area; therefore, the MSHCP survey/conservation requirements for burrowing owl do apply to the Study Area. The burrowing owl was not detected during the 2018 and 2019 MSHCP protocol burrowing owl surveys. Only a few suitable burrows were detected on site, but no evidence of occupation was detected at these burrows. The proposed Project is not expected to impact the burrowing owl, based on current lack of detection. However, since the site contains suitable habitat for the burrowing owl, a pre-construction burrowing owl survey is required per the MSHCP to avoid harming burrowing owls if any were to be present immediately prior to construction. Refer to Section 6.0 for details.

Proposed impacts to loggerhead shrike (foraging role only), northern harrier (foraging role only), and white-tailed kite (foraging role only), would be less than significant under CEQA. This is based on the number of individuals potentially affected, the species role in the Study Area, and/or whether the species remains "common" to the region. Regardless, these species are designated as covered species under the MSHCP, and the loss of habitat for these species would be covered through the MSHCP.

5.5 Impacts to Raptors

The Project would remove 9.75 acres of potential foraging habitat for raptors, including American kestrel, red-tailed hawk, northern harrier, Swainson's hawk, and white-tailed kite. Due to the small size and disturbed nature of the Study Area and close-proximity to human disturbance, impacts to raptor foraging habitat would be less than significant under CEQA. Additionally, the northern harrier, Swainson's hawk, and white-tailed kite are covered species under the MSHCP and the loss of foraging habitat for these species would be covered through the MSHCP.

5.6 Impacts to Nesting Birds

The 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 mitigation measure is identified in Section 6.0 of this report to avoid impacts to nesting birds.

Although impacts to native birds are prohibited by MBTA and similar 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 Study Area would be those that are common to the region. The number of individuals potentially affected by the Project would not significantly affect regional or local populations of such species. A measure is identified in Section 6.0 of this report to avoid impacts to nesting birds.

5.7 Impacts to Wildlife Migration/Nurseries

The Study Area lacks migratory wildlife corridors and wildlife nursery sites. The Study Area 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, or (3) impede the use of native wildlife nursery sites. No impact would occur.

5.8 Impacts to Critical Habitat

The Study Area will not impact lands designated as critical habitat by the USFWS.

5.9 Impacts to Jurisdictional Waters

Implementation of the proposed Project would permanently impact 0.28 acre (1,202 linear feet of ephemeral streambed) of potential federal jurisdiction and 0.31 acre (1,202 linear feet of non-riparian streambed) of potential non-riparian state jurisdiction, none of which consists of jurisdictional wetlands or riparian habitat. All of Drainage A and Tributary A-1 would be permanently removed by the Project [Exhibit 8]. These features do not support riparian vegetation (herbaceous or woody) and would support water flow only during and shortly after rainfall. These features do not provide habitat to plant or wildlife species beyond what the adjacent uplands provide. Although removal of these features trigger CWA Sections 401 and 404 and Fish and Game Code Section 1602 permitting/authorizations, the removal of, 0.28 acre federal and 0.31 acre of state, shallow, ephemeral drainages would not significantly impact water resources or associated biological resources in the vicinity or at a regional level. The proposed impact would be less than significant within mitigation incorporated under CEQA. Exhibit 8A depicts impacts to Corps and Regional Board jurisdiction and Exhibit 8B depicts impacts to CDFW and MSHCP Riverine jurisdiction.

5.10 Impacts to MSHCP Riparian/Riverine Areas

Pursuant to Volume I, Section 6.1.2 of the MSHCP, projects must consider alternatives providing for 100% percent avoidance of riparian/riverine areas. If avoidance is infeasible, then the unavoidable impacts must be mitigated and a Determination of Biologically Equivalent or Superior Preservation (DBESP) is required.

The Project would permanently remove 0.31 acre of riverine resources that are shallow ephemeral features that do not provide habitat for plants and animals beyond that of the adjacent uplands. No riparian vegetation is present (herbaceous or woody). As discussed in Section 5.8 above, the removal of these drainages poses a less than significant impact to water and biological resources, with mitigation incorporated. However, because the Project is receiving coverage under the MSHCP for impacts to other biological resources, it must be consistent with the Plan requirements. Pursuant to Volume I, Section 6.1.2 of the MSHCP, projects must consider alternatives providing for 100% percent avoidance of riparian/riverine areas. If avoidance is infeasible, then the unavoidable impacts must be mitigated and a DBESP is required. Refer to Section 6.0 for addressing the removal of 0.31 acre of riparian/riverine resources.

5.11 Indirect Impacts to Biological Resources

The MSHCP Urban/Wildland Interface Guidelines (*Volume I, Section 6.1.4* of the MSHCP) are intended to address indirect effects to biological resources 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;
- Invasives;
- Barriers; and
- Grading/Land Development.

The Project is not located adjacent to the MSHCP Conservation Area; therefore, it is not subject to the Urban/Wildland Interface Guidelines. Furthermore, the Project will not result in adverse indirect effects to special-status resources.

5.12 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.

Anticipated cumulative impacts are addressed by the MSHCP, which, as currently adopted, addresses 146 “Covered Species” that represent a broad range of habitats and geographical areas within Western Riverside County, including threatened and endangered species and regionally-

or locally-sensitive species that have specific habitat requirements and conservation and management needs. The MSHCP addresses biological impacts for take of Covered Species within the MSHCP area. Impacts to Covered Species and establishment and implementation of a regional conservation strategy and other measures included in the MSHCP are intended to address the federal, state, and local mitigation requirements for these species and their habitats. Specifically, Section 4.4 of the MSHCP states that:

The MSHCP was specifically designed to cover a large geographical area so that it would protect numerous endangered species and habitats throughout the region. It is the projected cumulative effect of future development that has required the preparation and implementation of the MSHCP to protect multiple habitats and multiple endangered species.

Of the biological resources present (or potentially present), implementation of the proposed Project was judged to cause potentially significant impacts to SKR. The SKR is a listed species and given the limited amount of potential habitat proposed for impact and the status of the species within the region, cumulatively considerable impacts are not expected to occur. Regardless, the SKR is a covered species under the SKR HCP. Consistency with the HCP would mitigate any potential cumulative impacts to a less than significant level under CEQA.

The proposed Project would remove potential low-quality habitat for loggerhead shrike (foraging role only), northern harrier (foraging role only), Swainson's hawk (foraging role only) and white-tailed kite (foraging role only). The Study Area is not expected to provide valuable habitat for any of these species due to the disturbed and small size of the site. Given the low number of individuals potentially affected, the status of each species in Western Riverside County, and the small amount of potential habitat proposed for removal, the Project would not make a cumulatively considerable contribution to the regional decline of these five species of special-status wildlife. All of these species are fully covered under the MSHCP and any potential cumulative impacts would be mitigated by the Plan.

No cumulative impacts would occur to wildlife linkage/corridors, and wildlife nurseries as none of these resources are present.

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 Study Area contains suitable habitat for burrowing owls; however, burrowing owls were not detected onsite during focused surveys. MSHCP Objective 6 for burrowing owls requires that pre-construction surveys prior to site grading. As such, the following measures are recommended to avoid direct impacts to burrowing owls and to ensure consistency with the MSHCP:

- **Pre-Construction Survey.** A qualified biologist will conduct a pre-construction presence/absence survey for burrowing owls within 30 days prior to site disturbance. If the species is found, the project proponent will immediately inform the Wildlife Agencies (CDFW, USFWS) and the RCA, and will need to coordinate further with RCA and the Wildlife Agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance. If the species is not found, no further action is needed.

6.2 Nesting Birds

The Study Area contains vegetation with the potential to support native nesting birds. As discussed above, 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, vegetation clearing should be conducted outside of the nesting season, which is generally identified as February 1 through August 31. 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.

6.3 Jurisdictional Waters/MSHCP Riverine Areas

Disturbances within the Study Area, as proposed, will result in permanent impact to 0.28 acre of Corps/Regional Board jurisdiction, none of which consists of jurisdictional wetlands, and 0.31 acre of CDFW/MSHCP Riverine jurisdiction, none of which consists of vegetated riparian habitat. A total of 1,202 linear feet of ephemeral streambed will be permanently disturbed.

Based on the overall impact to Corps/Regional Board and CDFW/MSHCP Riverine jurisdiction resulting from the proposed permanent fill of ephemeral streambed, the following is recommended to comply with state law:

- The Project Proponent shall compensate for permanent impact to 0.28 acre of Corps/Regional Board jurisdiction and 0.31 acre of CDFW/MSHCP Riverine jurisdiction at a minimum 1:1 mitigation-to-impact ratio through the purchase of rehabilitation, re-establishment, and/or establishment mitigation credits at an approved mitigation bank or in-lieu fee program within the San Jacinto River and/or Santa Ana River Watershed. The mitigation receipt from this fee payment will be provided to the Lead Agency prior to permanent disturbance to the drainage features on site.

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 Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process, or the Joint Project Review (JPR) process.

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

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 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 indicators 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.

As noted in Section 4.10.1 through 4.10.3 above, the Project impact area supports 0.28 acre of Corps/Regional Board jurisdiction and 0.31 acre of CDFW jurisdiction within ephemeral features passing through a disturbed agricultural field. These features do not contain habitat dominated by trees, shrubs, or persistent emergent mosses and lichens, and the upland, non-native vegetation within these features do not depend on soil moisture from a nearby freshwater source as the vegetation in the uplands and these features are the same, identical habitats; however, these features would still be subject to a DBESP. With the incorporation of mitigation described in Sections 6.3 above, impacts to riparian/riverine species would be mitigated to a less than significant level, which would result in a biologically equivalent or superior mitigation as compared to avoidance of resources. This would result in consistency with the MSHCP.

No vernal or seasonal pools are present within the Project site and Study Area and no impact to vernal or seasonal pools would occur.

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 does not occur within the NEPSSA. As such, focused surveys are not required by the MSHCP for NEPSSA species, and the proposed Project 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.

The proposed Project does not occur adjacent to or near the MSHCP Conservation Area, and therefore the Urban/Wildland Interface Guidelines do not apply to the Project.

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 CASSA, or special animal species survey area (i.e., burrowing owl, amphibians, and mammals). The proposed Study Area does not occur within the amphibian or mammal survey areas, or within the CASSA.

The proposed Project will be consistent with MSHCP Volume I, Section 6.3.2.

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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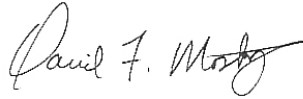
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9.0 CERTIFICATION

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: October 10, 2019

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Source: ESRI World Street Map



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Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand), NGCC, © OpenStreetMap contributors, and the GIS User Community

SEATON TECH CENTER

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1

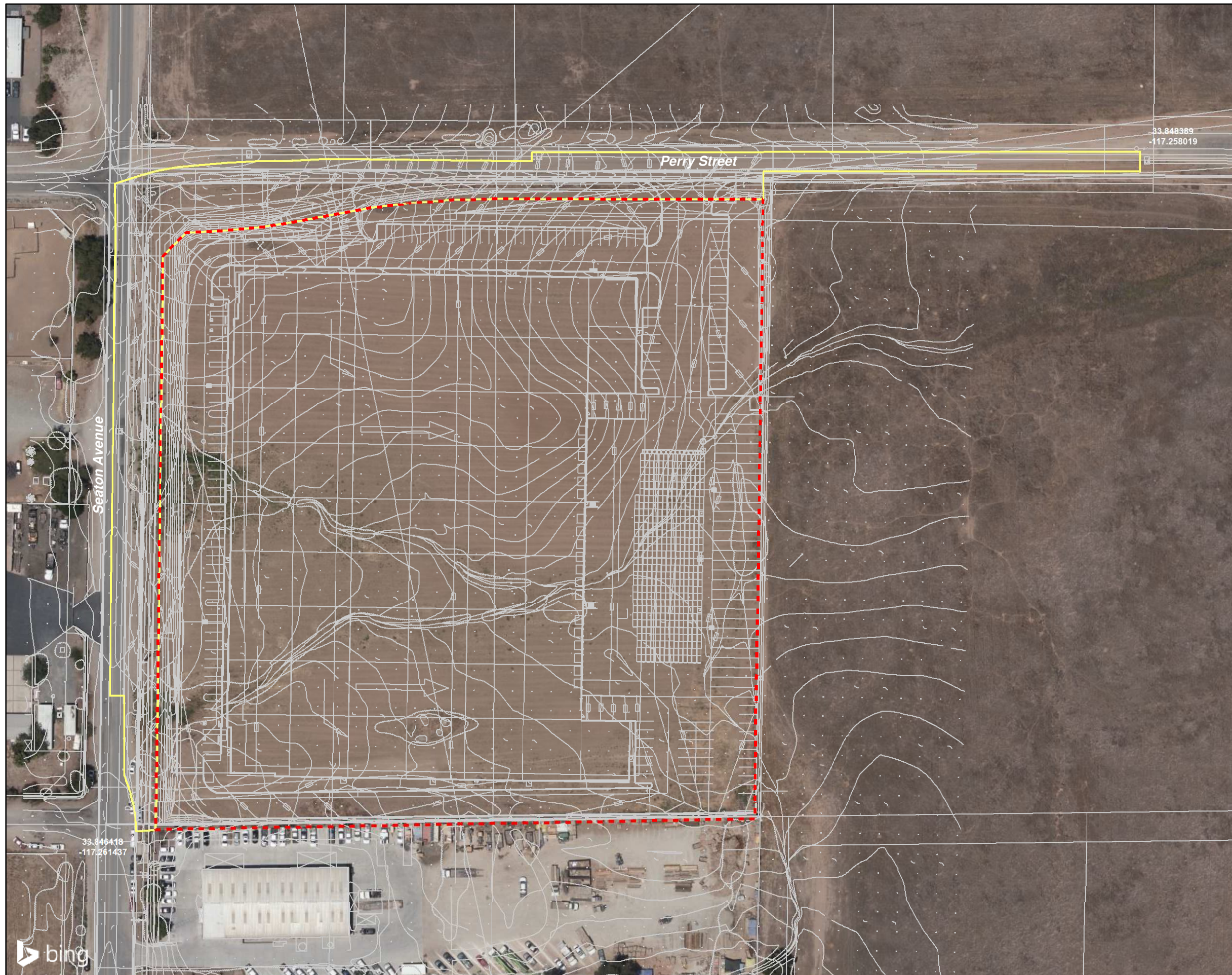




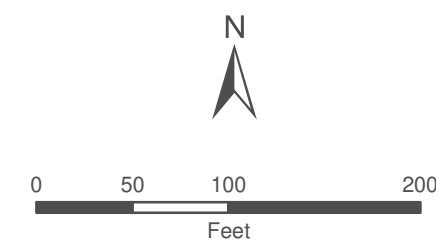
Vicinity Map

Exhibit 2





- Project Site Plan
- - - Onsite Study Area Boundary
- Offsite Study Area Boundary



1 inch = 100 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: October 10, 2019

SEATON TECH CENTER

Site Plan Map



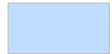
GLENN LUKOS ASSOCIATES

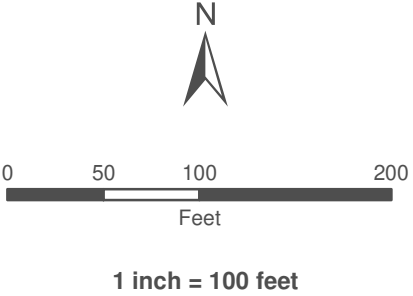


Exhibit 3

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-  Onsite Study Area Boundary
-  Offsite Study Area Boundary
-  Burrowing Owl Survey Area



Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: October 10, 2019

SEATON TECH CENTER





MSHCP Overlay Map

GLENN LUKOS ASSOCIATES



Exhibit 4



-  Onsite Study Area Boundary
-  Offsite Study Area Boundary
-  Disturbed/Developed
-  Disturbed/Ruderal



1 inch = 100 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: October 10, 2019

SEATON TECH CENTER

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 5





Photograph 1: Depicting Study area near the northwest corner facing approximately south with fiddleneck (*Amsinckia intermedia*), stinknet (*Oncosiphon piluliferum*), and London rocket (*Sisymbrium irio*) as the dominant species.



Photograph 2: Depicting the Study area near the western property boundary facing approximately east.




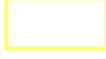


GLENN LUKOS ASSOCIATES

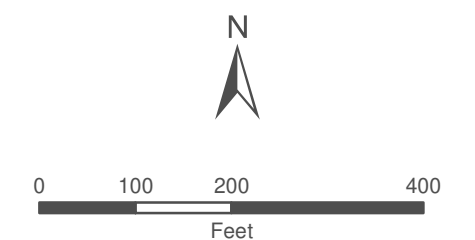
Exhibit 6

SEATON TECH CENTER PROJECT

Site Photographs



-  Onsite Study Area Boundary
-  Offsite Study Area Boundary
-  500' Buffer Area
-  Approximate Transect Lines



1 inch = 200 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: October 10, 2019

SEATON TECH CENTER

Burrowing Owl Survey Area Map

GLENN LUKOS ASSOCIATES

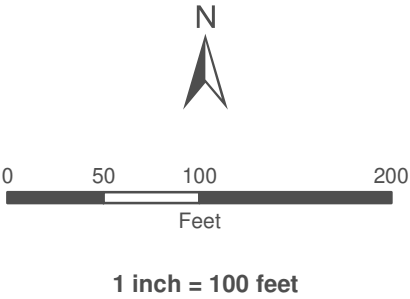


Exhibit 7

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- Project Study Area
- Corps/RWQCB Non-Wetland Waters
- Width in Feet
- Photo Location



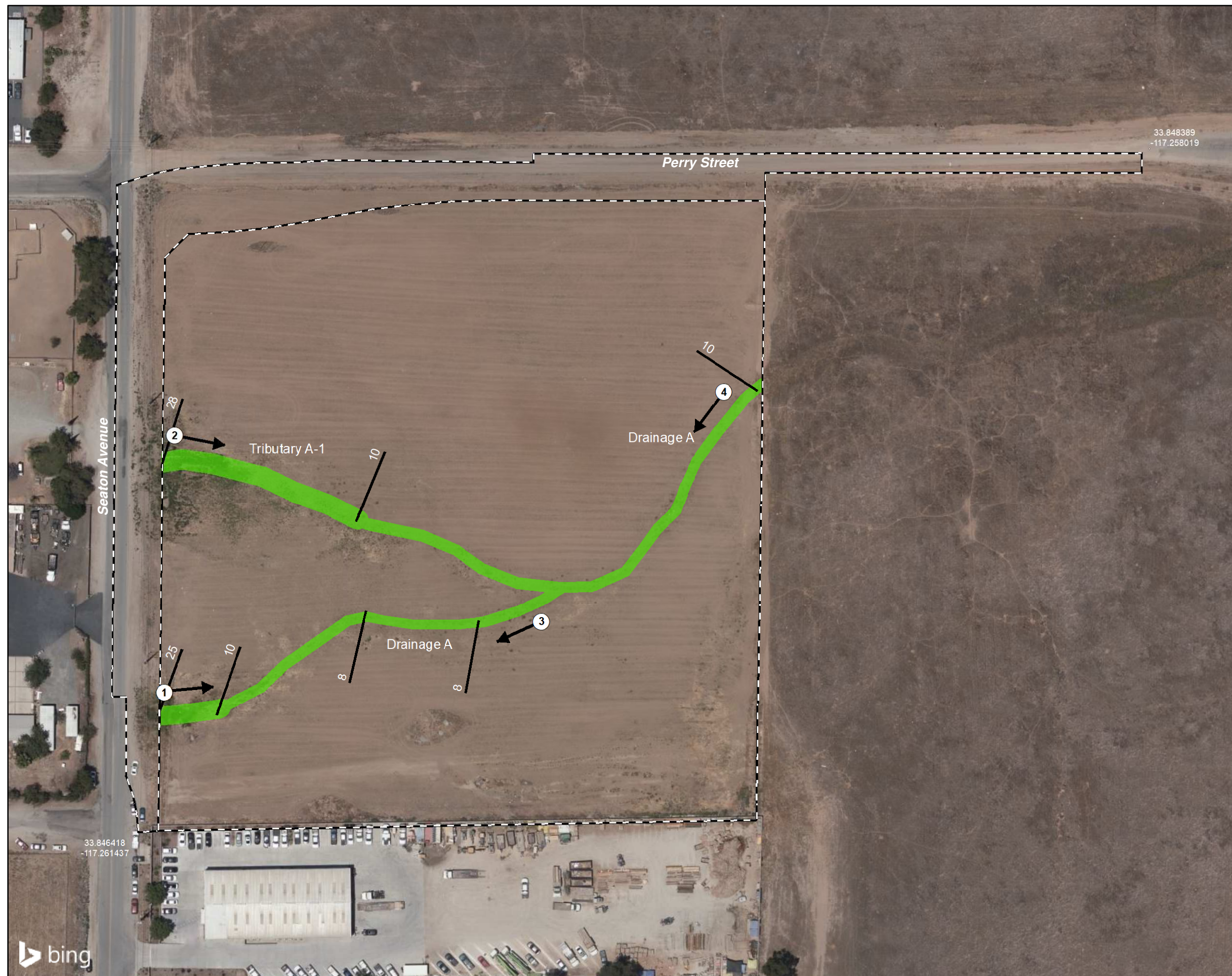
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Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: October 10, 2018

SEATON TECH CENTER
Corps/RWQCB Jurisdictional Delineation Map

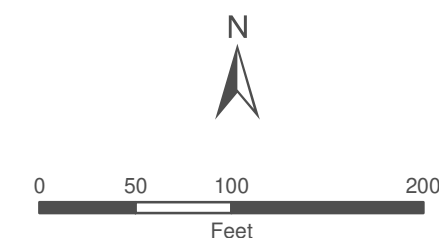
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Exhibit 8A





- Project Study Area
- CDFW Non-Riparian Streambed /MSHCP Riverine
- Width in Feet
- Photo Location



1 inch = 100 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD83
Map Prepared by: B. Gale, GLA
Date Prepared: October 10, 2018

SEATON TECH CENTER

CDFW Jurisdictional Delineation/MSHCP Riverine Map

GLENN LUKOS ASSOCIATES

Exhibit 8B



APPENDIX A

FLORAL COMPENDIUM

The floral compendium lists all species identified during floristic level/focused plant surveys conducted for the Project site. Taxonomy typically follows The Jepson Manual, 2nd Edition (2012). Common plant names are taken from Baldwin (2012), Munz (1974), and Roberts et al (2004) and Roberts (2008). An asterisk (*) denotes a non-native species.

SCIENTIFIC NAME

COMMON NAME

MAGNOLIOPHYTA

FLOWERING PLANTS

MONOCOTYLEDONES

MONOCOTS

POACEAE

Grass Family

- * *Bromus diandrus*
- * *Bromus madritensis* ssp. *rubens*
- * *Cynodon dactylon*

- ripgut grass
- red brome
- Bermuda grass

EUDICOTYLEDONES

EUDICOTS

AMARANTHACEAE

Amaranth Family

- * *Amaranthus retroflexus*

- rough pigweed

ASTERACEAE

Sunflower Family

- Deinandra fasciculata*
- Helianthus annuus*
- * *Hypochaeris glabra*
- Lasthenia californica*
- * *Oncosiphon piluliferum*
- * *Sonchus asper*

- clustered tarweed
- common sunflower
- smooth cat's ear
- California goldfields
- stinknet
- sow thistle

BORAGINACEAE

Borage Family

- Amsinckia intermedia*

- common fiddleneck

BRASSICACEAE

Mustard Family

- * *Hirschfeldia incana*
- * *Raphanus sativus*
- * *Sisymbrium irio*

- summer mustard
- radish
- London rocket

CHENOPODIACEAE

- * *Salsola tragus*

CONVOLVULACEAE

- * *Convolvulus arvensis*

EUPHORBIACEAE

- Euphorbia albomarginata*
- * *Ricinus communis*

FABACEAE

- * *Medicago polymorpha*
- * *Parkinsonia aculeata*

GERANIACEAE

- * *Erodium botrys*

MALVACEAE

- * *Malva parviflora*

SOLANCEAE

- * *Nicotiana glauca*
- * *Solanum crassifolia*

Goosefoot Family

Russian thistle

Morning Glory Family

field bindweed

Spurge Family

rattlesnake sandmat
castor bean

Pea Family

bur clover
palo verde

Geranium Family

longbeak stork's bill

Mallow Family

cheeseweed

Nightshade Family

tree tobacco
yellow-berried nightshade

APPENDIX B

FAUNAL COMPENDIUM

The faunal compendium lists all species identified during general/focused wildlife surveys conducted for the Project site. Scientific nomenclature and common names for vertebrate species referred to in this compendium follow the Complete List of Amphibian, Reptile, Bird, and Mammal Species in California (CDFW 2016), Standard Common and Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodilians 6th Edition, Collins and Taggart (2009) for amphibians and reptiles, and the American Ornithologists' Union Checklist 7th Edition (2015) for birds. A cross (†) denotes a special-status species and an asterisk (*) denotes a non-native species.

SCIENTIFIC NAME

COMMON NAME

AVES

BIRDS

ALAUDIDAE

Eremophila alpestris actia

Larks

California horned lark

COLUMBIDAE

* *Columba livia*
Zenaidura macroura

Pigeons and Doves

rock dove
mourning dove

CORVIDAE

Corvus brachyrhynchos

Crows and Jays

American crow

FRINGILLIDAE

Spinus psaltria

Finches

lesser goldfinch

HIRUNDINIDAE

Hirundo rustica

Swallows

barn swallow

STURNIDAE

* *Sturnus vulgaris*

Starlings

European starling

TYRANNIDAE

Tyrannus vociferans

Tyrant Flycatchers

Cassin's kingbird

MAMMALIA

MAMMALS

LEPORIDAE

Sylvilagus audubonii

Rabbits and Hares

Audubon's cottontail

SCIURIDAE

Otospermophilus beecheyi

Squirrels

California ground squirrel