BIOLOGICAL TECHNICAL REPORT

FOR THE

PATTERSON AVENUE AND HARVILL AVENUE PROJECT (PPT220026)

LOCATED IN THE COMMUNITY OF MEAD VALLEY, RIVERSIDE COUNTY, CALIFORNIA

Prepared For:

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January 24, 2023

INFORMATION SUMMARY

A. Report Date: January 24, 2023

B. Report Title: Biological Technical Report for the Patterson Avenue and Harvill Avenue Project (PPT220026), Riverside County, California

C. Project Site Location: The Project is located west of Interstate 215 and south of Cajalco Expressway in the Community of Mead Valley, Riverside County, California. The Project site is located at latitude 33.835262°N and longitude -117.252009°W within Section 12, Township 4 South, and Range 4 West on the USGS Steele Peak, California quadrangle, and is east of Patterson Avenue, west of Harvill Avenue, north of Rider Street, and south of Cajalco Road. Offsite impacts are located immediately adjacent to the east and west of the Project site, extending to the north.

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F. Report Summary:

This report describes the current biological conditions for the Patterson Avenue and Harvill Avenue Project (PPT220026) and evaluates impacts to biological resources from development of the Project.

The proposed 5.27-acre Project, which includes 0.16-acre of offsite impacts, is located within the Mead Valley Area Plan of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) but are not located within the MSHCP Criteria Area or existing Conserved Lands, including Public/Quasi-Public (PQP) Lands. The proposed Project is located within the burrowing owl survey area but is not located within any other MSHCP species survey areas.

Glenn Lukos Associates, Inc. (GLA) biologists/regulatory specialists conducted a general biological survey (including vegetation mapping) and habitat assessments on February 14 and May 5, 2022; conducted focused special-status plant surveys on March 9, April 13, and May 30, 2022; and conducted focused burrowing owl (*Athene cunicularia*) surveys on March 17, April 5, May 5, and June 7, 2022. Pursuant to MSHCP policies, biological surveys included habitat assessments for applicable special status plant species and animal species.

GLA evaluated the site for MSHCP riparian/riverine areas and vernal pools, and for federal and state jurisdictional waters subject to the jurisdictions of the U.S. Army Corps of Engineers (Corps), Santa Ana Regional Water Quality Control Board (Regional Board), or the California Department of Fish and Wildlife (CDFW). The proposed Project will not impact MSHCP riparian/riverine areas or vernal pools, or jurisdictional waters.

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

G. Individuals Conducting Fieldwork:

David Smith, Jillian Stephens

TABLE OF CONTENTS

Page #

1.0 INTRODUCTION 1
1.1 Background and Scope of Work 1
1.2 Project Location 1
1.3 Project Description 2
1.4 Relationship of the Project Site to the MSHCP 2
2.0 METHODOLOGY 3
2.1 Botanical Resources 5
2.2 Wildlife Resources 6
2.3 Jurisdictional Waters 8
2.4 MSHCP Riparian/Riverine Areas and Vernal Pools 8
3.0 REGULATORY SETTING 9
3.1 Endangered Species Acts 9
3.2 California Environmental Quality Act 11
3.3 Jurisdictional Waters 15
4.0 RESULTS 21
4.1 Existing Conditions 21
4.2 Vegetation Mapping 21
4.3 Special-Status Vegetation Communities 22
4.4 Special-Status Plants 22
4.5 Special-Status Animals 29
4.6 Nesting Birds 38
4.7 Wildlife Linkages/ Corridors and Nursery Sites 38
4.8 Critical Habitat 39
4.9 Jurisdictional Waters 39
4.10 MSHCP Riparian/Riverine Areas and Vernal Pools 39
5.0 IMPACT ANALYSIS 40
5.1 California Environmental Quality Act (CEQA) 41
5.2 Special-Status Species 42
5.3 Sensitive Vegetation Communities 43
5.4 Wetlands 44
5.5 Wildlife Movement and Native Wildlife Nursery Sites 44

5.6 Local Policies or Ordinances 44
5.7 Habitat Conservation Plans 45
5.9 MSHCP Riparian/Riverine Areas 45
5.10 Indirect Impacts to Biological Resources 45
5.11 Cumulative Impacts to Biological Resources 46
6.0 AVOIDANCE MEASURES 46
6.1 Burrowing Owl 47
6.2 Nesting Birds 47
7.0 MSHCP CONSISTENCY ANALYSIS 47
7.1 Project Relationship to Reserve Assembly 48
7.2 Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools 48
7.3 Protection of Narrow Endemic Plants 48
7.4 Guidelines Pertaining to the Urban/Wildland Interface 48
7.5 Additional Survey Needs and Procedures 49
7.6 Conclusion of MSHCP Consistency 49
8.0 REFERENCES 49
9.0 CERTIFICATION 53

TABLES

Table 2-1. Summary of Biological Surveys for the Project Site 4
Table 2-2. Summary of Burrowing Owl Surveys 8
Table 3-1. California Rare Plant Ranks 1, 2, 3, & 4, and Threat Code Extensions 14
Table 4-1. Summary of Vegetation/Land Use Types for the Project Site 22
Table 4-2. Special-Status Plants Evaluated for the Project Site 23
Table 4-3. Special-Status Animals Evaluated for the Project Site 29
Table 5-1. Summary of Vegetation/Land Use Impacts 43

EXHIBITS

Exhibit 1 Regional Map
Exhibit 2 Vicinity Map
Exhibit 3 Site Plan Map
Exhibit 4 MSHCP Overlay Map
Exhibit 5 Vegetation Map
Exhibit 6 Site Photographs

Exhibit 7 Burrowing Owl Survey Area Map
Exhibit 8 Soils Map

APPENDICES

Appendix A Floral Compendium
Appendix B Faunal Compendium

1.0 INTRODUCTION

1.1 Background and Scope of Work

This document provides the results of general and focused biological surveys for the approximately 5.27-acre Patterson Avenue and Harvill Avenue Project (PPT220026) [the Project] located in the Community of 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 5.27-acre Project site, including 0.16 acre of offsite impacts, 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 biological surveys and vegetation mapping; (2) habitat assessments for special-status plant species (including species with applicable MSHCP survey requirements); (3) habitat assessments for special-status wildlife species (including species with applicable MSHCP survey requirements); (4) assessment for the presence of wildlife migration and colonial nursery sites; (5) assessments for MSHCP riparian/riverine areas and vernal pools; and (6) assessments for areas subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) jurisdiction pursuant to Section 404 of the Clean Water Act, State Water Quality Control Board pursuant to Section 401 of the Clean Water Act, and CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600–1616 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 Project is located in the Community of Mead Valley, Riverside County, California [Exhibit 1 – Regional Map] and is located within Section 13 of Township 4 South, Range 4 West, of the U.S. Geological Survey (USGS) 7.5-minute quadrangle map Steele Peak [Exhibit 2 – Vicinity Map]. The Project is comprised of Assessor's Parcel Numbers 317-160-037 and 317-160-042, and is bounded by Harvill Avenue to the east, Patterson Avenue to the west, and agricultural lands to the north and south. For this report, the term "Project site" is defined as the onsite 5.11-acre area proposed for direct impact by the Project, and the term "offsite impacts" is defined as

the 0.16-acre area of offsite utility installations proposed for direct impact by the Project [Exhibit 3 – Site Plan Map].

1.3 Project Description

The Project Applicant is proposing a Plot Plan application (PPT220026) for the future development of one conforming warehouse facility on the subject property. The warehouse would consist of a 100,924 square-foot building with a total of 11 docking doors along the southern façade of the building. Offsite impacts include utility installations in Harvill Avenue and Patterson Avenue, extending northward from the onsite impact area and terminating adjacent to Cajalco Road.

The analysis in this document assumes that all direct impact would be permanent and that there will be no temporary impacts.

1.4 Relationship of the Project Site to the MSHCP

1.4.1 MSHCP Background

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

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

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

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

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

1.4.2 Relationship of the Project Site to the MSHCP

The Project is located within the Mead Valley Area Plan of the MSHCP, but is not located within the MSHCP Criteria Area, and as such the Project does not require JPR. The Project is located within the MSHCP Survey Area for the burrowing owl (*Athene cunicularia*), but is not located within the Mammal or Amphibian Survey Areas Narrow Endemic Plant Species Survey Area (NEPSSA), or the Criteria Area Plant Species Survey Area (CAPSSA) [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 the following main components:

- Evaluation of aquatic resources (including wetlands and riparian habitat) subject to the jurisdiction of the Corps, Regional Board, CDFW, and the MSHCP riparian/riverine areas and vernal pool policy;
- Performance of vegetation mapping for the Project site;

- Performance of habitat assessments and site-specific biological surveys, to evaluate the presence/absence of special-status species in accordance with the requirements of CEQA and the MSHCP;
- Performance of a focused survey for rare plants; and
- Performance of a focused survey for burrowing owl.

The focus of the biological surveys was determined through initial site reconnaissance, a review of the CNDDB (CDFW 2022), CNPS 9th edition online inventory (CNPS 2022), Natural Resource Conservation Service soil data (NRCS 2022), MSHCP species and habitat maps and sensitive soil maps (Dudek 2003), other pertinent literature, and knowledge of the region. Site-specific general surveys within the Project site were conducted on foot 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 Project Site

Survey Type	2022 Survey Dates	Biologist(s)
General Biological Survey/Habitat Assessment	2/14	DS
Evaluation of MSHCP Riparian/Riverine Areas	2/14	DS
Evaluation of MSHCP Vernal Pools and Fairy Shrimp Habitat	2/14	DS
Focused Plant Survey	3/9 4/13 5/30	JS JS JS
Focused Burrowing Owl Surveys	3/17 4/5 5/5 6/7	DS DS DS DS

DS = David Smith, JS = Jillian Stephens

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

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

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

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

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

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

2.1 Botanical Resources

A site-specific survey program was designed to accurately document the botanical resources within the Project site, and consisted of five components: (1) a literature search; (2) preparation of a list of target special-status plant species and sensitive vegetation communities that could occur within the Project site; (3) general field reconnaissance survey(s); (4) vegetation mapping; 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. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.5, CNPS 2022); and
- CNDDB for the USGS 7.5-minute quadrangle(s): Steele Peak and eight surrounding quadrangles (CDFW 2022).

2.1.2 Vegetation Mapping

Vegetation communities within the Project site 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 Project Site

A literature search was conducted to obtain a list of special-status plants with the potential to occur within the Project site. The CNDDB was initially consulted to determine well-known occurrences of plants and habitats of special concern in the region. Other sources used to develop a list of target species for the survey program included the CNPS online inventory (2022) and the MSHCP (Dudek 2003).

The Project site is not located within the NEPSSA or the CAPSSA. As such, focused plant surveys are not required pursuant to the MSHCP; however, focused surveys (described below) were still conducted to support the CEQA analysis.

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

2.1.4 Botanical Surveys

GLA biologist Jillian Stephens visited the site on March 9, April 13, and May 31, 2022, to conduct focused plant surveys. The surveys were conducted in accordance with accepted botanical survey guidelines (CDFW 2018, CNPS 2001, Nelson 1984, USFWS 2000). As applicable, surveys were conducted at appropriate times based on precipitation and flowering periods. An aerial photograph, a soil map, and/or a topographic map were used to determine the community types and other physical features that may support sensitive and uncommon taxa or communities within the Project site. Surveys were conducted by following meandering transects within target areas of suitable habitat. All plant species encountered during the field surveys were identified and recorded following the above-referenced guidelines. A complete list of the plant species observed is provided in Appendix A. Scientific nomenclature and common names used in this report follow Baldwin et al. (2012), and Munz (1974).

2.2 Wildlife Resources

Wildlife species were evaluated and detected during the field surveys by sight, call, tracks, and scat. Site reconnaissance was conducted in such a manner as to allow inspection of the entire Project site by direct observation, including the use of binoculars. Observations of physical evidence and direct sightings of wildlife were recorded in field notes during the visits. A complete list of wildlife species observed within the Project site is provided in Appendix B. Scientific nomenclature and common names for vertebrate species referred to in this report follow the Complete List of Amphibian, Reptile, Bird, and Mammal Species in California (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 Ornithological Society Checklist of Middle and North American Birds (Chesser et al. 2022) for birds. The methodology (including any applicable survey protocols) utilized to conduct general surveys, habitat assessments, and/or focused surveys for special-status animals are included below.

2.2.1 General Surveys

Birds

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

Mammals

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

Reptiles and Amphibians

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

2.2.2 Special-Status Animal Species Evaluated for the Project Site

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

2.2.3 Habitat Assessment for Special-Status Animal Species

GLA biologist David Smith conducted habitat assessments for special-status animal species on February 14, 2022. An aerial photograph, soil map and/or topographic map were used to determine the community types and other physical features that may support special-status and uncommon taxa within the Project site.

2.2.4 Focused Surveys for Special-Status Animals Species

Burrowing Owl

The majority of the Project site is within the MSHCP survey area for the burrowing owl [Exhibit 4 – MSHCP Overlay Map]. GLA biologist David Smith conducted focused surveys for the burrowing owl for all suitable habitat areas within the Project site. Surveys were conducted in accordance with survey guidelines described in the 2006 MSHCP Burrowing Owl Survey Instructions. The guidelines stipulate that four focused survey visits be conducted on separate dates between March 1 and August 31. Within areas of suitable habitat, the MSHCP requires a focused burrow survey to map all potentially suitable burrows. The focused burrow survey was conducted on March 17, 2022, in conjunction with the first focused owl survey. The remaining surveys were conducted on April 5, May 5, and June 7, 2022. Per the Survey Instructions, the burrowing owl survey visits are to be conducted either within a period from one hour prior to sunrise to two hours after sunrise or two hours before sunset to one hour after sunset.

Both the focused burrow and focused burrowing 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, the focused burrow survey was performed more than 5 days after a rain event.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Transects were spaced no more than 30 meters 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 100 meters 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. The surveys also included a 500-foot visual survey around the Project site that was scanned using binoculars, as feasible. Transect locations and the 500-foot visual survey area are provided on Exhibit 7. 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
3/17/2022	DS	0830/0900	61/62	0-1	Clear
4/5/2022	DS	0750/0830	65/67	0-1	Clear
5/5/2022	DS	0730/0800	64/66	0-1	Clear
6/7/2022	DS	0700/0730	66/68	0-1	Clear

DS = David Smith

2.3 Jurisdictional Waters

The Project site was evaluated for the presence of jurisdictional waters, including waters of the U.S. (including wetlands) subject to the jurisdiction of the Corps and Regional Board, and waters of the State (including riparian vegetation) subject to the jurisdiction of CDFW.

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 indictors of hydrology and/or vegetation during the drier portion of the growing season.*

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

GLA surveyed the Project site 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.

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. Section 1913 of the California Fish and Game Code provides 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.
- In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

3.1.4 Take Authorizations Pursuant to the MSHCP

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

Through agreements with the U.S. Fish and Wildlife Service (USFWS) and the California Department of Fish and Wildlife (CDFW), the MSHCP designates 146 special-status animal and plant species that receive some level of coverage under the plan. Of the 146 "Covered Species" designated under the MSHCP, the majority of these species have no additional survey/conservation requirements. In addition, through project participation with the MSHCP, the MSHCP provides mitigation for project-specific impacts to Covered Species so that the impacts would be reduced to below a level of significance pursuant to CEQA. As noted above, project-specific survey requirements exist for species designated as "Covered Species not yet adequately conserved". These include Narrow Endemic Plant Species, as identified by the Narrow Endemic Plant Species Survey Areas (NEPSSA); Criteria Area Plant Species identified by the Criteria Area Species Survey Areas (CASSA); 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 Clean Water Act Section 404 permitting, take authorization for federally listed covered species would occur under Section 7 (not Section 10) of FESA and that USFWS would provide a MSHCP consistency review of the proposed project, resulting in a biological opinion. The biological opinion would require no more compensation than what is required to be consistent with the MSHCP.

3.2 California Environmental Quality Act

3.2.1 CEQA Guidelines Section 15380

CEQA requires evaluation of a project's impacts on biological resources and provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts.

Sections 5.1.1 and 5.2.2 below set forth these thresholds and guidelines. Furthermore, pursuant to the CEQA Guidelines Section 15380, CEQA provides protection for non-listed species that could potentially meet the criteria for state listing. For plants, CDFW recognizes that plants assigned a California Rare Plant Rank (CRPR) of 1A, 1B, or 2 by 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, that are regionally important, such as locally rare species, disjunct populations of more common plants, or plants with a CRPR 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 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 (FP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California SSC are designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's CNDDB project. Informally listed taxa are not protected but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

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

- SE State-listed as Endangered
- ST State-listed as Threatened

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

CNDDB Global/State Rankings

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

Global Rankings

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

State Rankings

- S1 – Extremely rare; typically 5 or fewer known occurrences in the state; or only a few remaining individuals; may be especially vulnerable to extirpation.
- S2 – Very rare; typically between 6 and 20 known occurrences; may be susceptible to becoming extirpated.
- S3 – Rare to uncommon; typically 21 to 50 known occurrences; S3 ranked species are not yet susceptible to becoming extirpated in the state but may be if additional populations are destroyed.

- S4 - Uncommon but not rare; some cause for long-term concern due to declines or other factors.
- S5 - Common, widespread, and abundant in the state.

California Native Plant Society

CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. The CNPS's Ninth Edition of the *California Native Plant Society's Inventory of Rare and Endangered Plants of California* separates plants of interest into six California Rare Plant Ranks based on geographic distribution and potential threats to existing populations. The CNPS Inventory is used by CDFW as the candidate list for species that may be state listed as threatened and endangered. CNPS has developed six categories of rarity that are summarized in Table 3-1.

Table 3-1. California Rare Plant Ranks 1, 2, 3, & 4, and Threat Code Extensions

CRPR	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.

CRPR	Comments
.2 – Fairly endangered in California	Species with 20-80% of occurrences threatened.
.3 – Not very endangered in California	Species with <20% of occurrences threatened or with no current threats known.

3.3 Jurisdictional Waters

3.3.1 Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a)[1] as:

> *(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
> *(2) All interstate waters including interstate wetlands;*
> *(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:*
> *(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*
> *(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or*
> *(iii) Which are used or could be used for industrial purpose by industries in interstate commerce...*
> *(4) All impoundments of waters otherwise defined as waters of the United States under the definition;*
> *(5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;*
> *(6) The territorial seas;*
> *(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.*
> (8) *Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.*

[1] On January 23, 2020, the U.S. Environmental Protection Agency (EPA) and the Corps finalized the Navigable Waters Protection Rule to redefine "Waters of the United States" and thereby establish federal regulatory authority under the Clean Water Act. The Navigable Waters Protection Rule is expected to be published in the Federal Register in the first quarter of 2020 and will become effective 60 days after publication in the Federal Register. Implementation of the Navigable Waters Protection Rule may result in a change to the delineated areas of Corps jurisdiction as outlined in this report.

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

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.*

Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.

Pursuant to Article I, Section 8 of the U.S. Constitution, federal regulatory authority extends only to activities that affect interstate commerce. In the early 1980s the Corps interpreted the interstate commerce requirement in a manner that restricted Corps jurisdiction on isolated (intrastate) waters. On September 12, 1985, the U.S. Environmental Protection Agency (EPA) asserted that Corps jurisdiction extended to isolated waters that are used or could be used by migratory birds or endangered species, and the definition of "waters of the United States" in Corps regulations was modified as quoted above from 33 CFR 328.3(a).

On January 9, 2001, the Supreme Court of the United States issued a ruling on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* (SWANCC). In this case the Court was asked whether use of an isolated, intrastate pond by migratory birds is a sufficient interstate commerce connection to bring the pond into federal jurisdiction of Section 404 of the Clean Water Act.

The written opinion notes that the court's previous support of the Corps' expansion of jurisdiction beyond navigable waters (*United States v. Riverside Bayview Homes, Inc*.) was for a wetland that abutted a navigable water and that the court did not express any opinion on the question of the authority of the Corps to regulate wetlands that are not adjacent to bodies of open water. The current opinion goes on to state:

> *In order to rule for the respondents here, we would have to hold that the jurisdiction of the Corps extends to ponds that are not adjacent to open water. We conclude that the text of the statute will not allow this.*

Therefore, we believe that the court's opinion goes beyond the migratory bird issue and says that no isolated, intrastate water is subject to the provisions of Section 404(a) of the Clean Water Act (regardless of any interstate commerce connection). However, the Corps and EPA have issued a joint memorandum which states that they are interpreting the ruling to address only the migratory bird issue and leaving the other interstate commerce clause nexuses intact.

Rapanos v. United States and Carabell v. United States

On June 5, 2007, the EPA and Corps issued joint guidance that addresses the scope of jurisdiction pursuant to the Clean Water Act in light of the Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* ("Rapanos"). The chart below was provided in the joint EPA/Corps guidance.

For sites that include waters other than Traditional Navigable Waters (TNWs) and/or their adjacent wetlands or Relatively Permanent Waters (RPMs) tributary to TNWs and/or their adjacent wetlands, as set forth in the chart below, the Corps must apply the "significant nexus" standard.

For "isolated" waters or wetlands, the joint guidance also requires an evaluation by the Corps and EPA to determine whether other interstate commerce clause nexuses, not addressed in the SWANCC decision are associated with isolated features on project sites for which a jurisdictional determination is being sought from the Corps.

The Corps and EPA will assert jurisdiction over the following waters:

- Traditional navigable waters.
- Wetlands adjacent to traditional navigable waters.
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months).
- Wetlands that directly abut such tributaries.

The Corps and EPA will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW:

- Non-navigable tributaries that are not relatively permanent.
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent.
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent or short duration flow).
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to

determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters.
- Significant nexus includes consideration of hydrologic and ecologic factors.

Wetland Definition Pursuant to Section 404 of the Clean Water Act

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

- More than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the Arid West 2016 Regional Wetland Plant List[2],[3]);
- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
- Whereas the Wetland Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

3.3.2 Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[4] and waters of the

[2] Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.

[3] Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.

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

state. Waters of the United States are defined above in Section II.A and waters of the state are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

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

State Wetland Definition

The Water Boards define an area as wetland[5] as follows: *An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.*

The following wetlands are waters of the state:

1. *Natural wetlands;*
2. *Wetlands created by modification of a surface water of the state;*[6] *and*
3. *Artificial wetlands*[7] *that meet any of the following criteria:*

    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or

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or historic final judicial interpretation of "waters of the U.S." or any current or historic federal regulation defining "waters of the U.S." under the federal Clean Water Act.

[5] State Water Resources Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State. [For Inclusion in the Water Quality Control Plans for Inland Surface Waters and Enclosed Bays and Estuaries and Ocean Waters of California].

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

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

d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):

i. Industrial or municipal wastewater treatment or disposal,
ii. Settling of sediment,
iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
iv. Treatment of surface waters,
v. Agricultural crop irrigation or stock watering,
vi. Fire suppression,
vii. Industrial processing or cooling,
viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water, or
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[8]

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

3.3.3 California Department of Fish and Wildlife

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

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as “a body of water that flows, or has flowed,

[8] Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board’s authority to issue or waive waste discharge requirements or take other actions as applicable.

over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators."

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

4.0 RESULTS

This section provides the results of general biological surveys, vegetation mapping, habitat assessments and focused surveys for special-status plants and animals, an assessment for MSHCP riparian/riverine areas and vernal pools, and an evaluation 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

Historic aerial photography shows that the Project site and environs have been mechanically disturbed regularly since the 1960s. The Project site is comprised of disturbed, vacant land that is mowed and/or disked on a regular basis for weed abatement and fire protection. The onsite portion of the Project is bordered by Harvill Avenue to the east, Patterson Avenue to the west, and undeveloped agricultural lands to the north and south. The offsite portions of the Project consist of improvements to existing sections of Harvill Avenue and Patterson Avenue, located directly to the east and west of the onsite Project areas, and extending north towards Cajalco Road. The Project site elevation ranges from approximately 1,512 to 1,518 feet above mean sea level (AMSL) with the site gently sloping down from the north to the south.

Soils on site consist of Exeter sandy loam, deep, 2 to 8 percent slopes, eroded; Greenfield sandy loam 2 to 8 percent slopes, eroded; Monserate sandy loam, 5 to 8 percent slopes, eroded; and Ramona sandy loam, 2 to 5 percent slopes, eroded [Exhibit 8 – Soils Map].

4.2 Vegetation Mapping

The Project site and its associated offsite impacts support two vegetation types/land uses: Developed lands and Disturbed lands. 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 Project site are shown in Exhibit 6.

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

VEGETATION/LAND USE TYPE	ONSITE (acres)	OFFSITE (acres)	PROJECT (acres)
Developed	0.04	0.16	0.20
Disturbed	5.07	0.00	5.07
Total	**5.11**	**0.16**	**5.27**

Developed
The Project includes 0.20 acre of developed land associated with existing Patterson Avenue and Harvill Avenue, of which 0.04 acre is within the Project site and 0.16 acre is offsite. These areas are paved and entirely devoid of vegetation [Exhibit 5 – Vegetation Map].

Disturbed
The Project site includes 5.07 acres of disturbed land, primarily consisting of the lands that are regularly disked supporting non-native grasses and non-native and native forbs [Exhibit 5 – Vegetation Map]. The dominant plant species in this area are common Mediterranean grass (*Schismus barbatus*), foxtail barley (*Hordeum murinum*), red brome (*Bromus madritensis* ssp. *rubens*), and slim oat (*Avena barbata*). Other species within this area include coastal heron's bill (*Erodium cicutarium*), common fiddleneck (*Amsinckia intermedia*), common groundsel (*Senecio vugaris*), goldfields (*Lasthenia californica*), London rocket (*Sisymbrium irio*), Russian thistle (*Salsola tragus*), and summer mustard (*Hirschfeldia incana*).

4.3 Special-Status Vegetation Communities

The CNDDB identifies the following seven special-status vegetation communities for the Steele Peak and surrounding 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 Woodland, and Southern Willow Scrub. The Project site does not contain any special-status vegetation communities, including those identified in the CNDDB.

4.4 Special-Status Plants

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

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

Species Name	Status	Habitat Requirements	Occurrence
Brand's star phacelia *Phacelia stellaris*	Federal: None State: None CRPR: Rank 1B.1 MSHCP: MSHCP(b)	Coastal dunes and coastal sage scrub.	Does not occur.
Buxbaum's sedge *Carex buxbaumii*	Federal: None State: None CRPR: Rank 4.2 MSHCP: None	Bogs and fens, Meadows and seeps (mesic) and marshes and swamps.	Does not occur.
California Orcutt grass *Orcuttia californica*	Federal: FE State: SE CRPR: Rank 1B.1 MSHCP: MSHCP(b)	Vernal pools	Does not occur.
California screw moss *Tortula californica*	Federal: None State: None CRPR: Rank 1B.2 MSHCP: None	Sandy soil in chenopod scrub, and valley and foothill grassland.	Does not occur.
Chaparral ragwort *Senecio aphanactis*	Federal: None State: None CRPR: Rank 2B.2 MSHCP: None	Chaparral, cismontane woodland, coastal scrub. Sometimes associated with alkaline soils.	Does not occur.
Chaparral sand-verbena *Abronia villosa* var. *aurita*	Federal: None State: None CRPR: Rank 1B.1 MSHCP: None	Sandy soils in chaparral, coastal sage scrub.	Does not occur.
Cleveland's bush monkeyflower *Diplacus (Mimulus) clevelandii*	Federal: None State: None CRPR: 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 *Lasthenia glabrata* ssp. *coulteri*	Federal: None State: None CRPR: Rank 1B.1 MSHCP: MSHCP(d)	Playas, vernal pools, marshes and swamps (coastal salt).	Does not occur.
Coulter's matilija poppy *Romneya coulteri*	Federal: None State: None CRPR: Rank 4.2 MSHCP: MSHCP	Often in burns in chaparral and coastal scrub.	Does not occur.
Davidson's saltscale *Atriplex serenana* var. *davidsonii*	Federal: None State: None CRPR: Rank 1B.2 MSHCP: MSHCP(d)	Alkaline soils in coastal sage scrub, coastal bluff scrub.	Does not occur.
Engelmann oak *Quercus engelmannii*	Federal: None State: None CRPR: Rank 4.2 MSHCP: MSHCP	Chaparral, cismontane woodland, riparian woodland, valley and foothill grassland.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Fish's milkwort *Polygala cornuta* var. *fishiae*	Federal: None State: None CRPR: Rank 4.3 MSHCP: None	Chaparral, cismontane woodland, riparian woodland.	Does not occur.
Hall's monardella *Monardella macrantha* ssp. *hallii*	Federal: None State: None CRPR: 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 *Lepechinia cardiophylla*	Federal: None State: None CRPR: Rank 1B.2 MSHCP: MSHCP(d)	Closed-cone coniferous forest, chaparral, and cismontane woodland.	Does not occur.
Intermediate mariposa-lily *Calochortus weedii* var. *intermedius*	Federal: None State: None CRPR: Rank 1B.2 MSHCP: MSHCP	Rocky soils in chaparral, coastal sage scrub, valley and foothill grassland.	Does not occur.
Intermediate monardella *Monardella hypoleuca* ssp.*intermedia*	Federal: None State: None CRPR: Rank 1B.3 MSHCP: None	Usually in the understory of chaparral, cismontane woodland, and lower montane coniferous forest (sometimes).	Does not occur.
Little mousetail *Myosurus minimus* ssp. *apus*	Federal: None State: None CRPR: Rank 3.1 MSHCP: MSHCP(d)	Valley and foothill grassland, vernal pools (alkaline soils).	Does not occur.
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*	Federal: None State: None CRPR: 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 *Dudleya multicaulis*	Federal: None State: None CRPR: Rank 1B.2 MSHCP: MSHCP(b)	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	Does not occur.
Marsh sandwort *Arenaria paludicola*	Federal: FE State: SE CRPR: Rank 1B.1 MSHCP: None	Bogs and fens, freshwater marshes and swamps.	Does not occur.
Mesa horkelia *Horkelia cuneata* var. *puberula*	Federal: None State: None CRPR: Rank 1B.1 MSHCP: None	Sandy or gravelly soils in chaparral (maritime), cismontane woodland, and coastal scrub.	Does not occur.
Munz's onion *Allium munzii*	Federal: FE State: ST CRPR: Rank 1B.1 MSHCP: MSHCP(b)	Clay soils in chaparral, coastal sage scrub, and valley and foothill grasslands.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Nevin's barberry *Berberis nevinii*	Federal: FE State: SE CRPR: 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 *Lilium humboldtii* ssp. *ocellatum*	Federal: None State: None CRPR: 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 *Harpagonella palmeri*	Federal: None State: None CRPR: Rank 4.2 MSHCP: MSHCP	Chaparral, coastal sage scrub, valley and foothill grassland. Occurring in clay soils.	Does not occur.
Palomar monkeyflower *Erythranthe diffusa*	Federal: None State: None CRPR: Rank 4.3 MSHCP: MSHCP	Sandy or gravelly soils in chaparral, lower montane coniferous forest.	Does not occur.
Paniculate tarplant *Deinandra paniculata*	Federal: None State: None CRPR: Rank 4.2 MSHCP: None	Usually in vernally mesic, sometimes sandy soils in coastal scrub, valley and foothill grassland, and vernal pools.	Does not occur.
Parish's brittlescale *Atriplex parishii*	Federal: None State: None CRPR: Rank 1B.1 MSHCP: MSHCP(d)	Chenopod scrub, playas, vernal pools.	Does not occur.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CRPR: Rank 1B.1 MSHCP: MSHCP	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	Does not occur.
Payson's jewelflower *Caulanthus simulans*	Federal: None State: None CRPR: Rank 4.2 MSHCP: MSHCP	Sandy or granitic soils in chaparral and coastal scrub.	Does not occur.
Peninsular spineflower *Chorizanthe leptotheca*	Federal: None State: None CRPR: Rank 4.2 MSHCP: MSHCP	Alluvial fan, granitic. Chaparral, coastal scrub, lower montane coniferous forest.	Does not occur.
Plummer's mariposa lily *Calochortus plummerae*	Federal: None State: None CRPR: 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 *Lepidium virginicum* var. *robinsonii*	Federal: None State: None CRPR: Rank 4.3 MSHCP: None	Chaparral, coastal sage scrub	Does not occur.
Salt marsh bird's-beak *Chloropyron maritimum* ssp. *maritimum*	Federal: FE State: SE CRPR: Rank 1B.2 MSHCP: None	Coastal dune, coastal salt marshes and swamps.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
San Bernardino aster *Symphyotrichum defoliatum*	Federal: None State: None CRPR: 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 *Ambrosia pumila*	Federal: FE State: None CRPR: 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 County viguiera *Viguiera laciniata*	Federal: None State: None CRPR: Rank 4.3 MSHCP: None	Chaparral, coastal sage scrub.	Does not occur.
San Diego sagewort *Artemisia palmeri*	Federal: None State: None CRPR: 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 *Atriplex coronata* var. *notatior*	Federal: FE State: None CRPR: Rank 1B.1 MSHCP: MSHCP(d)	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools.	Does not occur.
San Miguel savory *Clinopodium chandleri*	Federal: None State: None CRPR: 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 *Eriastrum densifolium* ssp. *sanctorum*	Federal: FE State: SE CRPR: Rank 1B.1 MSHCP: MSHCP	Alluvial fan sage scrub, chaparral. Occurring on sandy or rocky soils.	Does not occur.
Santiago Peak phacelia *Phacelia keckii*	Federal: None State: None CRPR: Rank 1B.3 MSHCP: None	Closed-cone coniferous forest, and chaparral.	Does not occur.
Slender-horned spineflower *Dodecahema leptoceras*	Federal: FE State: SE CRPR: Rank 1B.1 MSHCP: MSHCP(b)	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	Does not occur.
Small-flowered microseris *Microseris douglasii* ssp. *platycarpha*	Federal: None State: None CRPR: Rank 4.2 MSHCP: None	Clay soils in cismontane woodland, coastal scrub, valley and foothill grassland, and vernal pools.	Does not occur.
Small-flowered morning-glory *Convolvulus simulans*	Federal: None State: None CRPR: Rank 4.2 MSHCP: MSHCP	Chaparral (openings), coastal sage scrub, valley and foothill grassland. Occurring on clay soils and serpentinite seeps.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CRPR: 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.
Southern California black walnut *Juglans californica*	Federal: None State: None CRPR: Rank 4.2 MSHCP: MSHCP	Chaparral, cismontane woodland, coastal sage scrub, alluvial surfaces.	Does not occur.
Spreading navarretia *Navarretia fossalis*	Federal: FT State: None CRPR: Rank 1B.1 MSHCP: MSHCP(b)	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	Does not occur.
Sticky dudleya *Dudleya viscida*	Federal: None State: None CRPR: Rank 1B.2 MSHCP: MSHCP(f)	Coastal bluff scrub, chaparral, coastal sage scrub. Occurring on rocky soils.	Does not occur.
Tecate cypress *Hesperocyparis forbesii*	Federal: None State: None CRPR: Rank 1B.1 MSHCP: None	Closed-cone coniferous forest, chaparral.	Does not occur.
Thread-leaved brodiaea *Brodiaea filifolia*	Federal: FT State: SE CRPR: 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 *Hordeum intercedens*	Federal: None State: None CRPR: 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 *Asplenium vespertinum*	Federal: None State: None CRPR: Rank 4.2 MSHCP: MSHCP	Rocky soils in chaparral, cismontane woodland, and coastal scrub.	Does not occur.
White rabbit-tobacco *Pseudognaphalium leucocephalum*	Federal: None State: None CRPR: Rank 2B.2 MSHCP: None	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian woodland.	Does not occur.
White-bracted spineflower *Chorizanthe xanti* var. *leucotheca*	Federal: None State: None CRPR: Rank 1B.2 MSHCP: None	Coastal scrub (alluvial fans), Mojavean desert scrub, pinyon and juniper woodland.	Does not occur.
Woven-spored lichen *Texosporium sancti-jacobi*	Federal: None State: None CRPR: Rank 3 MSHCP: None	On soil, small mammal pellets, dead twigs, and on *Selaginella* spp. Chaparral (openings).	Does not occur.
Wright's trichocoronis *Trichocoronis wrightii* var. *wrightii*	Federal: None State: None CRPR: Rank 2B.1 MSHCP: MSHCP(b)	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Yucaipa onion *Allium marvinii*	Federal: None State: None CRPR: Rank 1B.2 MSHCP: MSHCP(b)	Chaparral (clay, openings).	Does not occur.

STATUS

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

State
SE – State Endangered
ST – State Threatened

CNPS/CRPR
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

4.5 Special-Status Animals

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

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

Species Name	Status	Habitat Requirements	Occurrence
Invertebrates			
Crotch bumble bee *Bombus crotchii*	Federal: None State: SC MSHCP: Not Covered	Relatively warm and dry sites, including the inner Coast Range of California and margins of the Mojave Desert.	Does not occur.
Quino checkerspot butterfly *Euphydryas editha quino*	Federal: FE State: None MSHCP: MSHCP	Larval and adult phases each have distinct habitat requirements tied to host plant species and topography. Larval host plants include *Plantago erecta* and *Castilleja exserta*. 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 *Streptocephalus woottoni*	Federal: FE State: None MSHCP: MSHCP(a)	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	Does not occur.
San Diego fairy shrimp *Branchinecta sandiegonensis*	Federal: FE State: None MSHCP: None	Seasonal vernal pools	Does not occur.
Vernal pool fairy shrimp *Branchinecta lynchi*	Federal: FT State: None MSHCP: MSHCP (a)	Seasonal vernal pools	Does not occur.
Fish			
Arroyo chub *Gila orcutti*	Federal: None State: SSC MSHCP: MSHCP	Slow-moving or backwater sections of warm to cool streams with substrates of sand or mud.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Santa Ana speckled dace *Rhinichthys osculus* ssp. 3	Federal: None State: SSC MSHCP: Not Covered	Occurs in the headwaters of the Santa Ana and San Gabriel Rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temperatures of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	Does not occur.
Santa Ana sucker *Catostomus santaanae*	Federal: FT State: None MSHCP: MSHCP	Small, shallow streams, less than 7 meters in width, with currents ranging from swift in the canyons to sluggish in the bottom lands. Preferred substrates are generally coarse and consist of gravel, rubble, and boulders with growths of filamentous algae, but occasionally they are found on sand/mud substrates.	Does not occur.
Southern steelhead - southern California DPS *Oncorhynchus mykiss irideus*	Federal: FE State: None MSHCP: Not Covered	Clear, swift moving streams with gravel for spawning. Federal listing refers to populations from Santa Maria river south to southern extent of range (San Mateo Creek in San Diego county.)	Does not occur.
Amphibians			
Western spadefoot *Spea hammondii*	Federal: None State: SSC MSHCP: MSHCP	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Does not occur.
Reptiles			
California glossy snake *Arizona elegans occidentalis*	Federal: None State: SSC MSHCP: Not Covered	Inhabits arid scrub, rocky washes, grasslands, chaparral.	Does not occur.
Coastal whiptail *Aspidoscelis tigris stejnegeri (multiscutatus)*	Federal: None State: SSC MSHCP: MSHCP	Open, often rocky areas with little vegetation, or sunny microhabitats within shrub or grassland associations.	Does not occur.
Coast horned lizard *Phrynosoma blainvillii*	Federal: None State: SSC MSHCP: MSHCP	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	Does not occur.
Coast patch-nosed snake *Salvadora hexalepis virgultea*	Federal: None State: SSC MSHCP: Not Covered	Occurs in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Red-diamond rattlesnake *Crotalus ruber*	Federal: None State: SSC MSHCP: MSHCP	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Does not occur.
San Bernardino ringneck snake *Diadophis punctatus modestus*	Federal: None State: None	Moist habitats including woodlands, forest, grasslands, chaparral, farms, and gardens.	Does not occur.
Southern California legless lizard *Anniella stebbinsi*	Federal: None State: SSC MSHCP: Not Covered	Broadleaved upland forest, chaparral, coastal dunes, coastal scrub; found in a broader range of habitats that 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.
Western pond turtle *Emys marmorata*	Federal: None State: SSC MSHCP: MSHCP	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) *Haliaeetus leucocephalus*	Federal: Delisted State: SE, FP MSHCP: MSHCP	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.
Burrowing owl (burrow sites & some wintering sites) *Athene cunicularia*	Federal: None 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.	Confirmed absent.
California black rail *Laterallus jamaicensis coturniculus*	Federal: None 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.

Species Name	Status	Habitat Requirements	Occurrence
Coastal California gnatcatcher *Polioptila californica californica*	Federal: FT State: SSC MSHCP: MSHCP	Low elevation coastal sage scrub and coastal bluff scrub.	Does not occur.
Golden eagle *Aquila chrysaetos*	Federal: None State: WL, FP MSHCP: MSHCP	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) *Vireo bellii pusillus*	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) *Lanius ludovicianus*	Federal: None State: SSC MSHCP: MSHCP	Forages over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs.	Low potential to occur in for foraging. No potential to nest on site.
Long-eared owl (nesting) *Asio otus*	Federal: None State: SSC MSHCP: MSHCP	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.
Swainson's hawk (nesting) *Buteo swainsoni*	Federal: None State: ST MSHCP: MSHCP	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.	Low potential to occur for foraging. No potential to nest on site.
Tricolored blackbird (nesting colony) *Agelaius tricolor*	Federal: None State: CE, SSC MSHCP: MSHCP	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) *Charadrius alexandrinus nivosus*	Federal: FT 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) *Coccyzus americanus occidentalis*	Federal: FT State: SE MSHCP: MSHCP(a)	Dense, wide riparian woodlands with well-developed understories.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
White-tailed kite (nesting) *Elanus leucurus*	Federal: None State: FP MSHCP: MSHCP	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Low potential to occur for foraging. No potential to nest on site.
Yellow-breasted chat (nesting) *Icteria virens*	Federal: None State: SSC MSHCP: MSHCP	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Does not occur.
Yellow rail *Coturnicops noveboracensis*	Federal: None 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) *Setophaga petechia*	Federal: None State: SSC MSHCP: MSHCP	Breed in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, forages in woodland, forest, and shrub habitats.	Does not occur.
Mammals			
American badger *Taxidea taxus*	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 *Chaetodipus califronicus femoralis*	Federal: None State: SSC MSHCP: Not Covered	Coastal scrub, grassland, and chaparral, especially at grass-chaparral edges	Does not occur.
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	Federal: None State: SSC MSHCP: MSHCP(c)	Fine, sandy soils in coastal sage scrub and grasslands.	Low potential to occur.
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	Federal: None State: SSC MSHCP: MSHCP	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Not expected to occur.
Pocketed free-tailed bat *Nyctinomops femorosaccus*	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 *Dipodomys merriami parvus*	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.

Species Name	Status	Habitat Requirements	Occurrence
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: SSC MSHCP: MSHCP	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Not expected to occur.
Southern grasshopper mouse *Onychomys torridus ramona*	Federal: None State: SSC MSHCP: Not Covered	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	Does not occur.
Stephens' kangaroo rat *Dipodomys stephensi*	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 to occur.
Western mastiff bat *Eumops perotis californicus*	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.	Not expected to occur.
Western yellow bat *Lasiurus xanthinus*	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 *Myotis yumanensis*	Federal: None State: None WBWG: LM	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 Project Site

Birds

Loggerhead Shrike (*Lanius ludovicianus*) 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 loggerhead shrike was not detected during the biological surveys. However, the Project site includes approximately 5.07 acres of potential foraging habitat (areas mapped as Disturbed) but does not support suitable nesting habitat.

Swainson's Hawk (*Buteo swainsonii*) 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 Swainson's hawk was not detected during the biological surveys; however, as the site is devoid of any trees, the species is not expected to utilize the site except potentially as part of a larger foraging area along a migratory route. The Project site includes approximately 5.07 acres of potential foraging habitat (area mapped as Disturbed).

White-tailed Kite (*Elanus leucurus*) is designated as a California Fully Protected Species by CDFW (with an emphasis on nesting) and is a covered species under the MSHCP without

additional survey or conservation requirements. The white-tailed kite inhabits low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Riparian areas adjacent to open areas are used for nesting (Dunk 1995). Substantial groves of dense, broad-leafed deciduous trees are used for nesting and roosting (Brown and Amadon 1968).

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 harm of Fully Protected Species, including the white-tailed kite. The Project site does not contain any nesting habitat for the white-tailed kite, and therefore it is not expected that the Project could result in direct harm to a white-tailed kite. However, the Project site includes approximately 5.07 acres of potential foraging habitat (areas mapped as Disturbed).

Mammals

Los Angeles Pocket Mouse (*Perognathus longimembris brevinasus*) is designated as a CDFW Species of Special Concern and is a covered species under the MSHCP with special survey requirements. However, the Project site does not occur within a mammal survey area for Los Angeles pocket mouse; therefore, surveys are not required, and avoidance/mitigation would not be required for the loss of habitat, if present. Habitat of the Los Angeles pocket mouse has never been specifically defined, although Grinnell (1933) indicated that the subspecies "inhabits open ground of fine sandy composition" (cited in Brylski et al. 1993). This observation is supported by others who also state that the Los Angeles pocket mouse prefers fine, sandy soils and may utilize these soil types for burrowing (e.g., Jameson and Peters 1988). This subspecies may be restricted to lower elevation grassland and coastal sage scrub (Patten et al. 1992).

Vegetation associations probably are important for the Los Angeles pocket mouse and, like other heteromyid species, it probably prefers sparsely vegetated habitats. However, soil characteristics probably also must be appropriate for a site to support the Los Angeles pocket mouse. Nonetheless, the habitat associated with the Los Angeles pocket mouse include non-native grassland, Riversidean sage scrub, Riversidean alluvial fan sage scrub, chaparral and redshank chaparral.

Although the Project site is disturbed and no burrows or evidence of occupation was detected, the Project site contains an estimated 5.07 acres of potential habitat for the Los Angeles pocket mouse (areas mapped as Disturbed) and therefore, the pocket mouse may be present.

Stephens' Kangaroo Rat (*Dipodomys stephensi*) is a federally Threatened species and a state Threatened species. 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 Project site is disturbed and no burrows or evidence of occupation was detected, the Project site supports approximately 5.07 acres of potential habitat (areas mapped as Disturbed) and therefore, the SKR may be present. The Project site is located within the Fee Area Boundary of the SKR HCP. Focused surveys for SKR are not required within the Fee Area, regardless of habitat suitability. Take authorization for SKR is covered through the HCP.

4.5.2 Special-Status Wildlife Species Confirmed Absent Through Focused Surveys at the Project Site

Burrowing Owl (*Athene cunicularia*) is designated as a CDFW Species of Special Concern. The burrowing owl is a covered species not adequately conserved under the MSHCP, which means that projects located within the burrowing owl survey area may have to evaluate avoidance measures if burrowing owls are present.

The burrowing owl occurs in shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), prairies, coastal dunes, desert floors, and some artificial, open areas as a year-long resident (Haug et al. 1993). They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. As a critical habitat feature need, they require the use of rodent or other burrows for roosting and nesting cover.

No burrowing owls or evidence of burrowing owls (e.g., cast pellets, preened feathers, or whitewash clustered at a burrow) were detected in the Project site during the focused burrowing owl surveys, and no owls were observed within the 500-foot visual survey area.

4.5.3 Fairy Shrimp

On February 14, 2022, GLA biologists performed a habitat assessment for fairy shrimp habitat. No vernal pools or other seasonal pools (natural or artificial) are present within the Project site, including any features with the potential to support fairy shrimp. 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.

4.5.4 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 authorization for raptors covered under the Plan.

The Project site provides foraging habitat for raptors, including several special-status raptors. During the general and focused biological surveys, GLA detected red-tailed hawk within the Project site. The Project site is surrounded by undeveloped agricultural lands to the north and south, and by commercial development to the east and west. Small mammal burrows were detected within the Project site. The site is routinely mowed and/or disked for weed abatement. As described in section 4.5.2 above, there is low potential for Swainson's hawk and white-tailed kite to forage on the Project site. A total of 5.07 acres of potential foraging habitat is present for raptors. The Project site does not support potential nesting habitat for these species.

4.6 Nesting Birds

The Project site contains ground cover that provides suitable habitat for nesting native birds. Mortality of native birds (including eggs) is prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.[9]

Common bird species observed on the Project site included American crow (*Corvus brachyrhynchos*), black phoebe (*Sayornis nigricans*), California towhee (*Melozone crissalis*), Eurasian collared-dove (*Streptopelia decaocto*), horned lark (*Eremophila alpestris*), house finch (*Haemorhous mexicanus*), and northern mockingbird (*Mimus polyglottos*).

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

4.7 Wildlife Linkages/ Corridors and Nursery Sites

Habitat linkages are areas which provide a connection 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.

[9] The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R.21). In addition, 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.

Corridors are similar to linkages but provide specific opportunities for individual animals to disperse or migrate between areas, generally extensive but otherwise partially or wholly separated regions. Adequate cover and tolerably low levels of disturbance are common requirements for corridors. Habitat in corridors may be quite different than that in the connected areas, but if used by the wildlife species of interest, the corridor will still function as desired.

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

The Project site has historically been disturbed and is mostly surrounded by commercial property to the east and west and disturbed agricultural lands to the north and south. The Project site does not occur with a criteria cell, and therefore does not contain an existing or proposed Core, Linkage, or Constrained Linkage as identified by the MSHCP. Although the Project site may provide for the local movement of wildlife, including small and medium-sized mammals, the Project site is not part of a significant regional wildlife movement corridor, as identified by the MSHCP.

4.8 Critical Habitat

The Project site is not located within USFWS-designated Critical Habitat areas.

4.9 Jurisdictional Waters

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

4.10 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 Project site does not contain any riparian/riverine areas or vernal pools pursuant to Section 6.1.2 of the MSHCP. The site is routinely mowed/disked in certain areas and has been an agricultural area since the 1960s. There were no indications of low-lying areas that may support seasonal ponding or support the transport of water during rainfall events.

No vernal pools or other seasonal pools (natural or artificial) are present within the Project site, including any features with the potential to support fairy shrimp. 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.

The Project site does not support suitable potential habitat for riparian-associated birds including least Bell's vireo, southwestern willow flycatcher, and western yellow-billed cuckoo. Each of these species requires riparian vegetation, which is not present on the Project site.

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 offsite areas where the effects of the project may be experienced by plants and wildlife. Examples of indirect impacts include the effects of increases in ambient levels of noise or light; predation by domestic pets; competition with exotic plants and animals; introduction of toxics, including pesticides; and other human disturbances such as hiking, off-road vehicle use, unauthorized dumping, etc. Indirect impacts are often attributed to the subsequent day-to-day activities associated with project build-out, such as increased noise, the use of artificial light sources, and invasive ornamental plantings that may encroach into native areas. Indirect effects may be both short-term and long-term in their duration. These impacts are commonly referred to as "edge effects" and may result in a slow replacement of native plants by non-native invasive species, 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 2018 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 state or federally protected wetlands (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 Special-Status Species

Appendix G(a) of the CEQA guidelines asks if a project is likely to "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."

5.2.1 Special-Status Plants

The Project site does not support special-status plants.

5.2.2 Special-Status Animals

Impacts to Listed Species

The proposed Project will remove habitat with the potential to be occupied by one listed species: SKR (Federal Endangered and State Threatened).

SKR. An estimated 5.07 acres of potential habitat for SKR is within the Project site. No potential SKR burrows or evidence of occupation (including burrows, scat, tail drags, or dust baths) were detected on the Project site; however, there is low potential for SKR to occur. Impacts to SKR occupied habitat could be a potentially significant impact under CEQA; however, the proposed Project site occurs within the SKR Fee Assessment Area of the SKR HCP. Any impacts to SKR would be covered under the SKR HCP with payment of the fee, which also would reduce any significant impacts to a less than significant level.

Impacts to Non-Listed Species

In addition to the listed species discussed above, the proposed Project would remove habitat with the potential to support the following non-listed species that are MSHCP Covered Species: 1) Birds: burrowing owl, loggerhead shrike, and white-tailed kite; and 2) Mammals: Los Angeles pocket mouse.

Burrowing Owl. Burrowing owls were confirmed absent during focused surveys conducted by GLA in 2022. However, pursuant to the 2006 MSHCP Burrowing Owl Survey Instructions, pre-construction owl surveys must be performed no more than 30 days prior to disturbance. If burrowing owls are detected during pre-construction surveys, then the owls must be relocated from the site outside of the breeding season following accepted protocols, and subject to the approval of the Regional Conservation Authority (RCA), CDFW, and USFWS.

Other Non-Listed Species. The loss of habitat with the potential to support the loggerhead shrike (foraging only), white-tailed kite (foraging only), and Los Angeles pocket mouse, would be less than significant under CEQA. This is based on the limited amount of potential habitat to be affected relative to the range of each species and, with some of the species, the context of use (e.g., non-nesting status of the loggerhead shrike and white-tailed kite). Regardless, as these species are designated as MSHCP Covered Species, the loss of habitat would be covered through compliance with the MSHCP, including the payment of MSHCP development fees.

5.3 Sensitive Vegetation Communities

Appendix G(b) of the CEQA guidelines asks if a project is likely to "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."

The Project will not impact any riparian habitat or other sensitive natural communities. The proposed Project would permanently impact approximately 5.27 acres of lands through the development of the Project site and installation of utilities within the existing alignments of Patterson Avenue and Harvill Avenue, including 0.20 acre of Developed areas (0.04 acre onsite, 0.16 acre offsite) and 5.07 acres of Disturbed onsite areas. Table 5-1 provides a summary of impacts to vegetation/land use types.

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

VEGETATION/LAND USE TYPE	ONSITE (acres)	OFFSITE (acres)	PROJECT (acres)
Developed	0.04	0.16	**0.20**
Disturbed	5.07	0.00	**5.07**
Total	**5.11**	**0.16**	**5.27**

5.4 Wetlands

Appendix G(c) of the State CEQA guidelines asks if a project is likely to "have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means."

The Project site does not contain any state or federally protected wetlands.

5.5 Wildlife Movement and Native Wildlife Nursery Sites

Appendix G(d) of the State CEQA guidelines asks if a project is likely to "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."

The Project site has historically been disturbed and is surrounded by undeveloped agricultural lands to the north and south, and by commercial development to the east and west. The Project site does not occur within an existing or proposed Core, Linkage, or Constrained Linkage as identified by the MSHCP. Although the Project site may provide for the local movement of wildlife, including small and medium-sized mammals, the Project site is not part of a significant regional wildlife movement corridor, as identified by the MSHCP, and therefore impacts to the site will be less than significant under CEQA.

The Project site does not have habitat that would support wildlife nursery sites, and therefore will not impact native wildlife nursery sites.

The project has the potential to impact active bird nests if vegetation is removed during the nesting season (February 1 to September 15). Impacts to nesting birds are prohibited by the MBTA and California Fish and Game Code.

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 Project site are extremely common to the region and highly adapted to human landscapes (e.g., mourning dove, killdeer). 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.

5.6 Local Policies or Ordinances

Appendix G(e) of the State CEQA guidelines asks if a project is likely to "conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance."

The Project will not conflict with any local policies or ordinances protecting biological resources.

5.7 Habitat Conservation Plans

Appendix G(f) of the State CEQA guidelines asks if a project is likely to "conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan."

As discussed throughout this report, the Project is within the Western Riverside County MSHCP. Section 7.0 of this report analyzes compliance of the Project with the Reserve Assembly and species/habitat requirements of the MSHCP. Through compliance with the applicable requirements, the Project will not conflict with the provisions of the MSHCP.

5.8 Jurisdictional Waters

The Project site does not contain Corps, CDFW, or Regional Board jurisdictional waters; therefore, permits are not required, including a Corps CWA Section 404 Permit, a Regional Board CWA Section 401 Water Quality Certification or CWC Section 13260 Waste Discharge Order, or CDFW Section 1602 Streambed Alteration Agreement.

5.9 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 mitigation must be provided for the unavoidable impacts and a Determination of Biologically Equivalent or Superior Preservation (DBESP) is required.

As noted above, the Project site does not support any riparian vegetation or vernal pools and therefore the Project will not impact any associated resources.

5.10 Indirect Impacts to Biological Resources

In the context of biological resources, indirect effects are those effects associated with developing areas adjacent to adjacent native open space. Projects located in the MSHCP that are adjacent to the MSHCP Conservation Area are required to implement measures pursuant to the MSHCP Urban/Wildlands Interface Guidelines (*Volume I, Section 6.1.4* of the MSHCP). These guidelines are intended to address indirect effects associated with locating projects (particularly development) in proximity to the MSHCP Conservation Area. However, because the Project is not located adjacent to the MSHCP Conservation Area, the Urban/Wildland Interface Guidelines do not apply to the Project.

5.11 Cumulative Impacts to Biological Resources

Cumulative impacts are defined as the direct and indirect effects of a proposed project which, when considered alone, would not be deemed a substantial impact, but when considered in addition to the impacts of related projects in the area, would be considered potentially significant. "Related projects" refers to past, present, and reasonably foreseeable probable future projects, which would have similar impacts to the proposed project.

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 would 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 under CEQA.

The proposed Project would remove potential low-quality habitat for burrowing owl, loggerhead shrike (foraging only), and white-tailed kite (foraging only). The Project site is not expected to provide valuable habitat for any of these species due to the disturbed nature of the site. Given the low number of individuals potentially affected, the MSHCP Covered status of each species, 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 species.

6.0 AVOIDANCE MEASURES

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

6.1 Burrowing Owl

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

- **Pre-Construction Survey.** A 30-day pre-construction survey for burrowing owls is required prior to future ground-disturbing activities (e.g., vegetation clearing and grubbing, tree removal, site watering, equipment staging, etc.) to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the Project site prior to the initiation of ground-disturbing activities, the project proponent will immediately inform the Regional Conservation Authority (RCA) and the Wildlife Agencies and will need to coordinate in the future with the RCA and the Wildlife Agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance. If ground-disturbing activities occur, but the site is left undisturbed for more than 30 days, a pre-construction survey will again be necessary to ensure that burrowing owl have not colonized the site since it was last disturbed. If burrowing owls are found, the same coordination described above will be necessary.

6.2 Nesting Birds

The Project site contains vegetation with the potential to support native nesting birds. As discussed above, the California Fish and Game Code prohibits mortality of native birds, including eggs. The following measure is recommended to avoid mortality to nesting birds. Potential impacts to native birds were 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 September 15. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

7.0 MSHCP CONSISTENCY ANALYSIS

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

Species), *Section 6.1.4* (Guidelines Pertaining to the Urban/Wildlands Interface), and *Section 6.3.2* (Additional Survey Needs and Procedures).

7.1 Project Relationship to Reserve Assembly

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

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

As discussed in Section 5.9 of this report, the proposed Project will not impact MSHCP riparian/riverine areas. As such, a DBESP is not required, and the proposed Project will be consistent with MSHCP *Volume I, Section 6.1.2*. The Project site does not contain vernal pools and does not contain suitable habitat for fairy shrimp or for riparian birds with survey/conservation requirements (i.e., least Bell's vireo, southwestern willow flycatcher and western yellow billed cuckoo).

7.3 Protection of Narrow Endemic Plants

Volume I, Section 6.1.3 of the MSHCP requires that within identified Narrow Endemic Plant Species Survey Areas (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.

As discussed in Section 5.0 of this report, the Project is not adjacent to 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 CAPSSA, or special animal species survey area (i.e., burrowing owl, amphibians, and mammals). The proposed Project does not occur within the amphibian or mammal survey areas, or within the CAPSSA, but is within the burrowing owl survey area. Focused burrowing owl surveys were conducted for the proposed Project site, and no burrowing owls were detected. As indicated in Section 6.0 of this report, pre-construction burrowing owl surveys will occur within the 30 days of site disturbance in conjunction with MSHCP requirements. 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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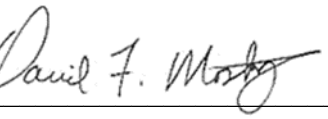
9.0 CERTIFICATION

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: January 24, 2023

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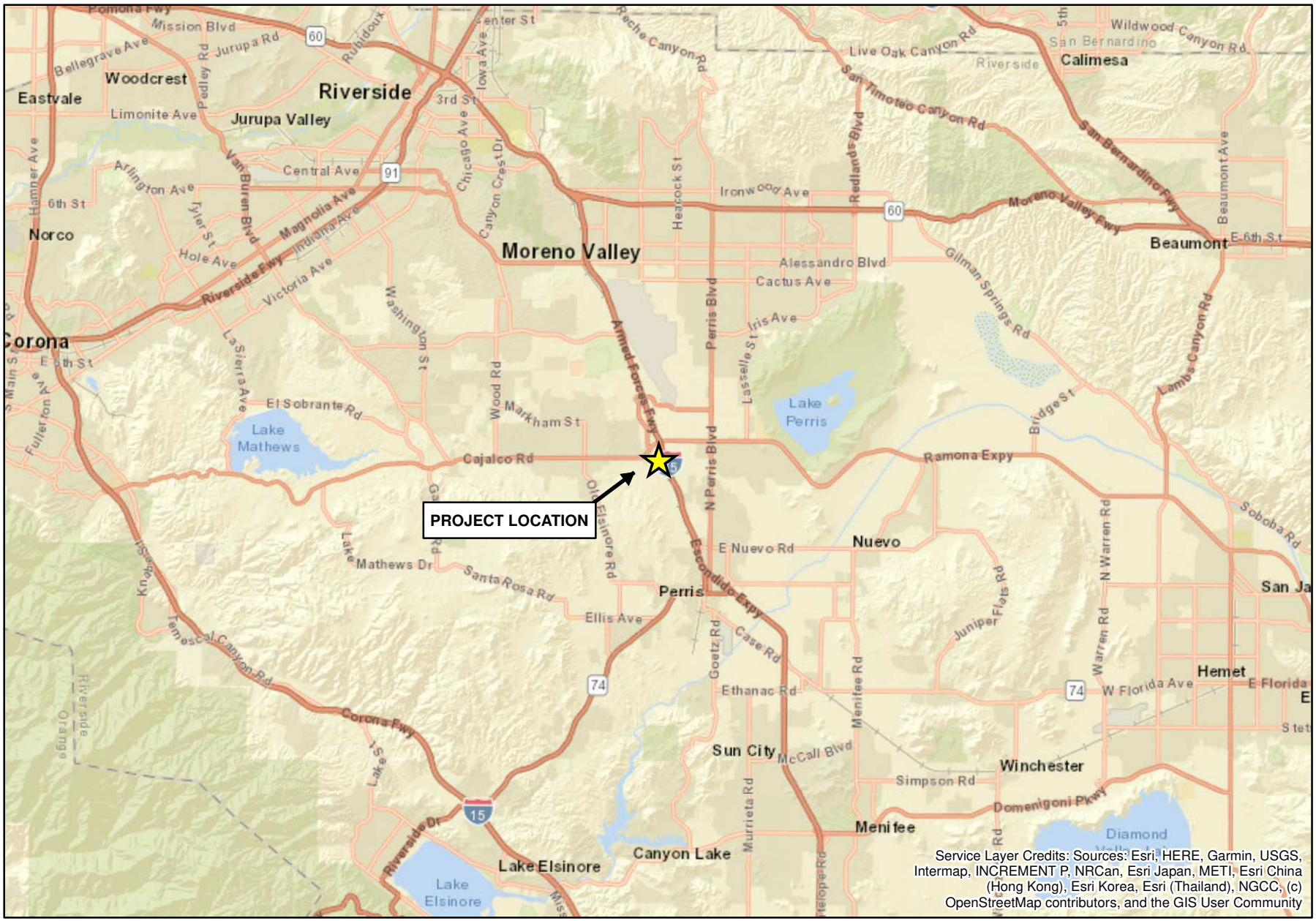


Source: ESRI World Street Map

N

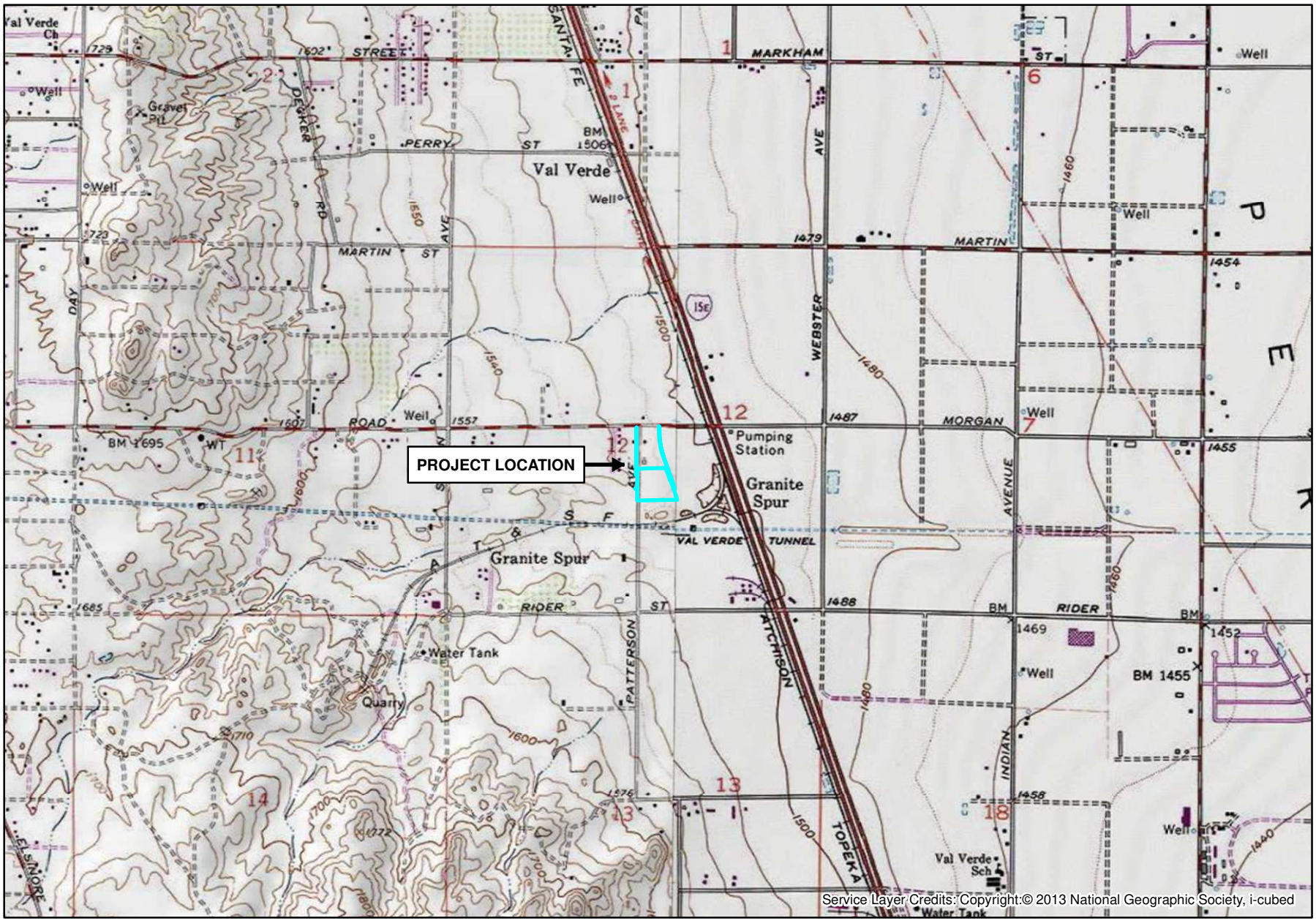
0 2 4 8 Miles

PATTERSON AVENUE AND HARVILL AVENUE PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Steele Peak, CA quadrangle

N

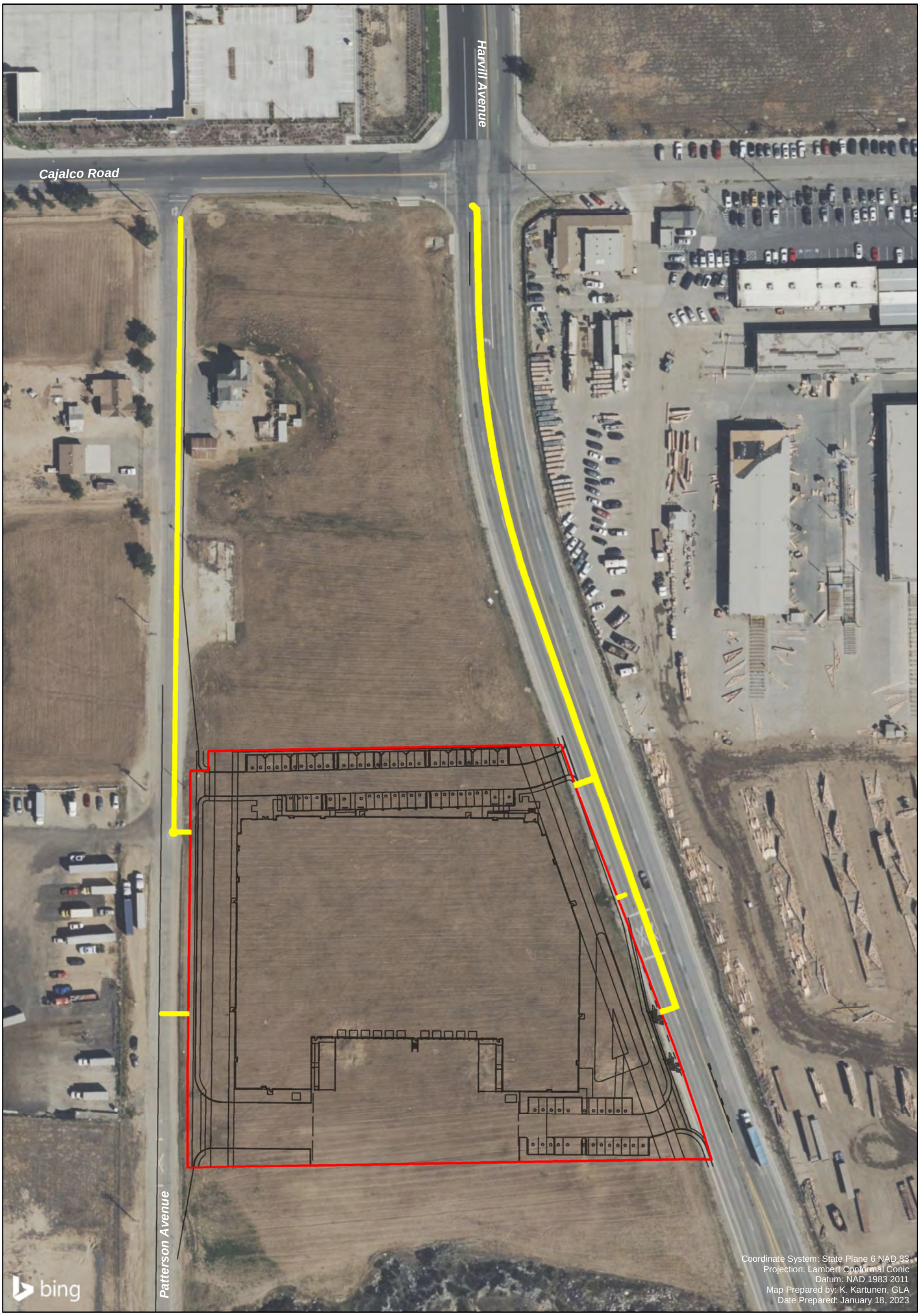
0 1,000 2,000 4,000 Feet

PATTERSON AVENUE AND HARVILL AVENUE PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Project Site

Offsite Utilities Impact Area

Project Site Plan

N

0 50 100 200

Feet

1 inch = 100 feet

PATTERSON AVENUE AND HARVILL AVENUE PROJECT

Site Plan

GLENN LUKOS ASSOCIATES

Exhibit 3

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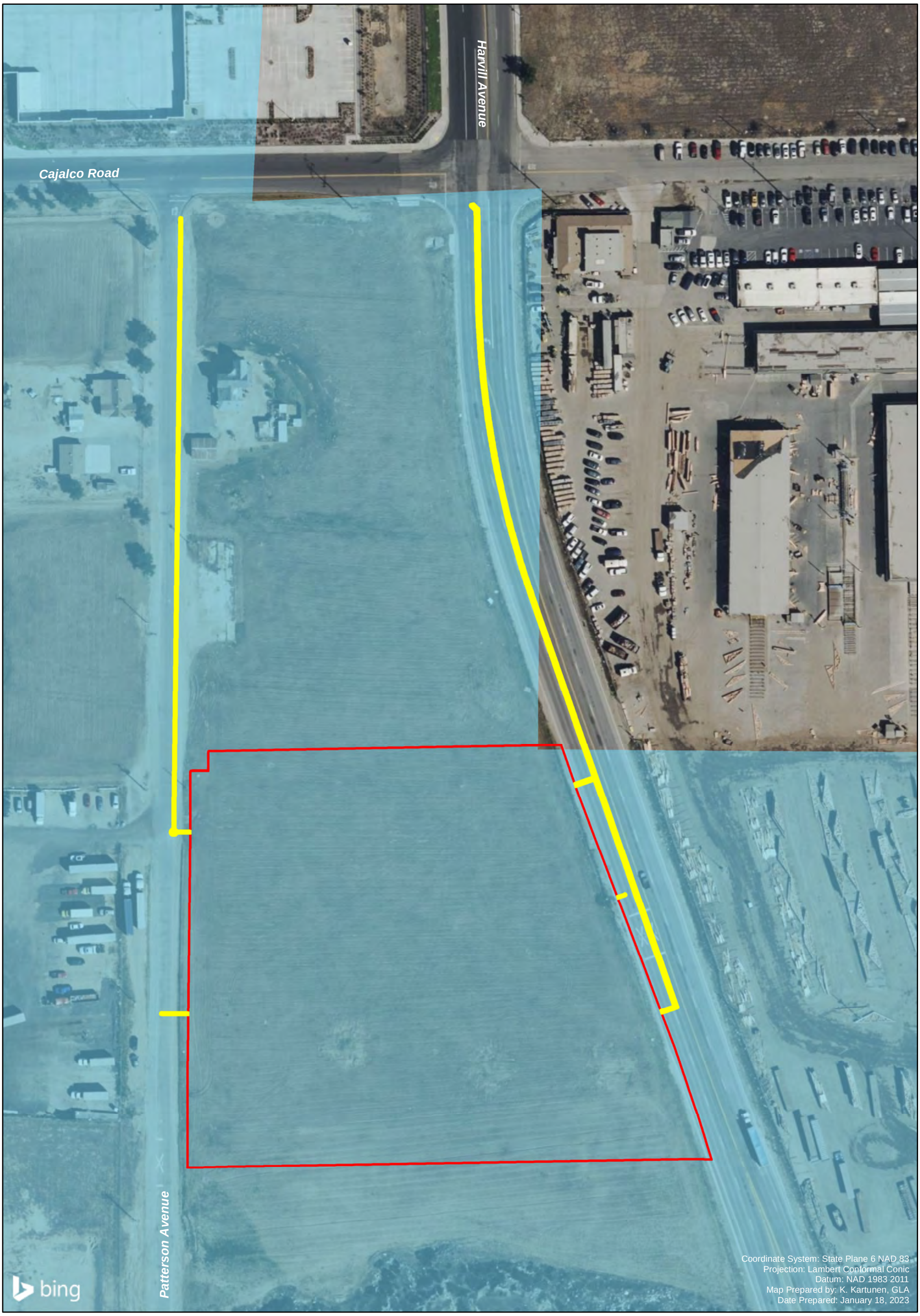

Project Site

Offsite Utilities Impact Area

Burrowing Owl Survey Area

N

0 50 100 200

Feet

1 inch = 100 feet

PATTERSON AVENUE AND HARVILL AVENUE PROJECT

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 4

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Project Site

Offsite Utilities Impact Area

Developed

Disturbed

N

0 50 100 200

Feet

1 inch = 100 feet

PATTERSON AVENUE AND HARVILL AVENUE PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 5

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Photograph 1: View of disturbed areas in the central portion of the Project site.



Photograph 2: South-facing view of the southwestern portion of the Project site. Patterson Avenue is on the right.

GLENN LUKOS ASSOCIATES

PATTERSON AVENUE AND HARVILL AVENUE PROJECT

Site Photographs



Photograph 3: South-facing view of the eastern portion of the Project site. Harvill Avenue is on the left.



Photograph 4: Southeastern view of the southern portion of the Project site.

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PATTERSON AVENUE AND HARVILL AVENUE PROJECT

Site Photographs



Project Site

Offsite Utilities Impact Area

500' Visual Survey Area

Transect

N

0 87.5 175 350

Feet

1 inch = 175 feet

PATTERSON AVENUE AND HARVILL AVENUE PROJECT

Burrowing Owl Survey Area Map

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Exhibit 7

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Project Site

Offsite Utilities Impact Area

EpC2 - Exeter sandy loam, deep, 2 to 8 percent slopes, eroded

GyC2 - Greenfield sandy loam, 2 to 8 percent slopes, eroded

MmC2 - Monserate sandy loam, 5 to 8 percent slopes, eroded

RaB2 - Ramona sandy loam, 2 to 5 percent slopes, eroded

N

0 50 100 200

Feet

1 inch = 100 feet

PATTERSON AVENUE AND HARVILL AVENUE PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 8

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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, Second Edition (Baldwin et al. 2012). Common plant names are taken from Baldwin et al. (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**
MONOCOTYLEDONS	**MONOCOTS**
POACEAE	**Grass Family**
* *Avena barbata*	slim oat
* *Bromus madritensis* ssp. *rubens*	red brome
* *Hordeum murinum*	foxtail barley
* *Schismus barbatus*	common Mediterranean grass
EUDICOTYLEDONS	**EUDICOTS**
AMARANTHACEAE	**Amaranth Family**
* *Salsola tragus*	Russian thistle
ASTERACEAE	**Sunflower Family**
Lasthenia californica	goldfields
* *Senecio vulgaris*	common groundsel
BORAGINACEAE	**Borage Family**
Amsinckia intermedia	common fiddleneck
BRASSICACEAE	**Mustard Family**
* *Hirschfeldia incana*	summer mustard
* *Sisymbrium irio*	London rocket
GERANIACEAE	**Geranium Family**
* *Erodium cicutarium*	coastal heron's bill

APPENDIX B
FAUNAL COMPENDIUM

The faunal compendium lists species that were either observed within or adjacent to the Study Area (denoted by a '*'), or that have some potential to occur within or adjacent to the Study Area (denoted by a '+'). Taxonomy and common names are taken from the California Wildlife Habitat Relationships System (CDFW 2016); AOS (2022) and CDFW (2016) for birds; Collins and Taggart (2009) and CDFW (2016) for reptiles and amphibians; and CDFW (2016) for mammals.

AVES	BIRDS
COLUMBIDAE	**Pigeons And doves**
* *Streptopelia decaocto*	Eurasian collared-dove
TYRANNIDAE	**Tyrant Flycatchers**
Sayornis nigricans	black phoebe
CORVIDAE	**Crows And Jays**
Corvus brachyrhynchos	American crow
ALAUDIDAE	**Larks**
Eremophila alpestris	horned lark
MIMIDAE	**Mockingbirds and Thrashers**
Mimus polyglottos	northern mockingbird
STURNIDAE	**Starlings**
* *Sturnus vulgaris*	European starling
PASSERELLIDAE	**New World Sparrows**
Melozone crissalis	California towhee
FRINGILLIDAE	**Fringilline and Cardueline Finches and Allies**
Haemorhous mexicanus	house finch