BIOLOGICAL TECHNICAL REPORT

FOR THE

RIDER STREET AND PATTERSON AVENUE PROJECT (PPT220004)

LOCATED IN THE COMMUNITY OF MEAD VALLEY, RIVERSIDE, CALIFORNIA

Prepared For:

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December 19, 2022
[Revised May 8, 2023]
[Revised August 14, 2023]

INFORMATION SUMMARY

A. Report Date: December 19, 2022 [Revised August 14, 2023]

B. Report Title: Biological Technical Report for the Rider Street and Patterson Avenue Project (PPT220004), 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 south of Rider Street, west of Patterson Avenue, north of Walnut Street, and east of Vista Del Lago. The Project site occurs within Section 13, Township 4 South, and Range 4 West on the USGS Steele Peak, California quadrangle. The Project site is located at 33.828784°N and -117.255070°W (center reading).

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F. Report Summary:

This report describes the current biological conditions for the Rider Street and Patterson Avenue Project [Project] and evaluates impacts to biological resources from development of the Project.

The proposed 45.45-acre Project site is located within the Mead Valley Area Plan of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) and is located within Cell Group B (Criteria Cells 2432 and 2533) of the MSHCP Criteria Area/Conservation Area. 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 general biological and site-specific surveys on February 14, March 9, April 13, May 5, September 14,

and November 14, 2022 for the Project 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 special status species and animal species. In addition, GLA conducted vegetation mapping, including potential MSHCP riparian/riverine areas, and a delineation of federal and state jurisdictional waters.

The proposed Project will impact MSHCP riparian/riverine areas, as well as waters subject to the jurisdictions of the Santa Ana Regional Water Quality Control Board (Regional Board) and the California Department of Fish and Wildlife (CDFW).

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

G. Individuals Conducting Fieldwork:

David Smith, Jillian Stephens, Zack West

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1.0 INTRODUCTION

1.1 Background and Scope of Work

This document provides the results of general biological surveys and focused biological surveys for the approximately 45.45-acre Rider Street and Patterson Avenue Project (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 45.45-acre Project site, all methods employed regarding the general biological surveys and focused biological surveys, the documentation of botanical and wildlife resources identified (including special-status species), and an analysis of impacts to biological resources. Methods of the study include a review of relevant literature, field surveys, and a Geographical Information System (GIS)-based analysis of vegetation communities. As appropriate, this report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), the California Native Plant Society (CNPS), and other applicable agencies/organizations.

The field study focused on a number of primary objectives that would comply with CEQA and MSHCP requirements, including (1) general reconnaissance survey and vegetation mapping; (2) general biological surveys; (3) habitat assessments for special-status plant species (including species with applicable MSHCP survey requirements); (4) habitat assessments for special-status wildlife species (including species with applicable MSHCP survey requirements); (5) assessment for the presence of wildlife migration and colonial nursery sites; (6) assessments for MSHCP riparian/riverine areas and vernal pools; and (7) assessments for areas subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) jurisdiction pursuant to Section 404 of the Clean Water Act, 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 comprises approximately 45.45 acres 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 317-210-006, 317-210-008, 317-210-010, 317-210-011, 317-210-018, 317-210-022, 317-210-023, and 317-210-024. The Project site is bordered by Rider Street to the north, Patterson Avenue to the east, Walnut Street to the south, and existing residential development to the west.

1.3 Project Description

For this report, the term "Project site" is defined as that area proposed for direct impact by the proposed Project and totals 45.45 acres [Exhibit 3 – Site Plan Map]. The Project site consists of 40.88 acres of onsite improvements, which is defined as the limits of the parcels under ownership control by the Project applicant, and 4.57 acres of offsite improvements, which refers to those areas that will be directly impacted by the proposed Project but are not owned or controlled by the Project applicant. Approximately 42.87 acres of the Project site is located in Criteria Cell 2432, and 2.58 acres of the Project site is located outside of the Criteria Area. Table 1-1 below provides a summary of the Project site.

Table 1-1. Summary of Project Site

Area	Criteria Cell 2432 (Acres)	Outside Criteria Area (Acres)	Total (Acres)
Onsite	40.88	--	40.88
Offsite	2.00	2.58	4.57
Total	**42.87**	**2.58**	**45.45**

The Project site is located at the southwest corner of the intersection of Rider Street and Patterson Avenue within the Mead Valley Area Plan of unincorporated Riverside County. The Project includes the development of a 591,203 square-foot (s.f.) warehouse building, which would include 7,300 s.f. of ground floor office space, 7,300 s.f. of mezzanine office space, and 576,603 s.f. of warehouse space. A total of 84 truck docking doors are proposed, positioned on the northern and southern sides of the building. Approximately 6.0 acres along the western parcel boundary would consist of a landscaped berm between the proposed building and an existing residential community to the west. Frontage improvements would occur along Patterson Avenue, Walnut Street, and Rider Street, with a sidewalk and community trail proposed along Patterson Avenue and Walnut Street and a sidewalk proposed along Rider Street. Various other improvements include storm drain installations and roadway improvements. All weed abatement/fuel modification would be contained within the Project site boundary. Construction staging will occur within the onsite portion of the Project and in the paved public right-of-way of Rider Street.

The analysis in this document assumes that all direct impacts would be permanent and there would 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 site is located within the Motte/Rimrock Subunit 1 of the Mead Valley Area Plan of the MSHCP and is located within the northeastern quarter of MSHCP Criteria Area cell 2432 within Cell Group B, and as such, the Project requires 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 Criteria Area Plant Species Survey Area (CAPSSA) [Exhibit 4A – MSHCP Overlay Map and Exhibit 4B – MSHCP Survey Areas 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:

- Delineation of aquatic resources (including wetlands and riparian habitat) subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), CDFW, and the MSHCP riparian/riverine area 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	2/14	DS
Evaluation of MSHCP Vernal Pools and Fairy Shrimp Habitat	2/14 5/5	DS
Focused Plant Surveys	3/9 4/13 5/30	JS JS JS

Survey Type	2022 Survey Dates	Biologist(s)
Focused Burrowing Owl Surveys	3/17 4/5 5/5 6/7	DS DS DS DS
Delineation of MSHCP Riparian/Riverine Areas	5/5	DS
Delineation of Federal and State Jurisdictional Waters	5/5 9/14 11/14	DS DS, ZW DS

DS = David Smith, JS = Jillian Stephens, ZW = Zack West

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

Based on this information, vegetation profiles and a list of target sensitive plant species and habitats that could occur within the 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, including a focused burrow survey as part of the burrowing owl habitat assessment. 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 4B – MSHCP Survey Areas 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, along 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. Refer to Table 2-1 in Section 2.0 for survey condition details.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Surveys of the 500-foot buffer area were limited to scanning with binoculars due to lack of permission to access private property. Exhibit 7 identifies the burrowing owl survey areas at the Project site. 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. Transect locations are provided on Exhibit 7, along with the 500-foot buffer area. 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	0700/0900	52/62	0-1	Clear
4/5/2022	DS	0630/0830	54/67	0-1	Clear
5/5/2022	DS	0600/0800	58/66	0-1	Clear
6/7/2022	DS	0530/0730	64/68	0-1	Clear

DS = David Smith

2.3 Jurisdictional Waters

The Project site was delineated to identify the limits 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. Prior to beginning the field delineation, a 200-scale color aerial photograph and the previously cited USGS topographic maps were examined to determine the locations of potential areas of Corps/CDFW jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Potential wetland habitats at the subject site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[1] (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement)[2]. The presence of an Ordinary High Water Mark (OHWM) was determined using the 2008 Field Guide to Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States[3] in conjunction with the Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States.[4] While in the field the limits of the OHWM, wetlands (if applicable), and CDFW jurisdiction were recorded using GPS technology and/or on copies of the aerial photography. Other data were recorded onto the appropriate datasheets.

2.4 MSHCP Riparian/Riverine Areas and Vernal Pools

Volume I, Section 6.1.2 of the MSHCP describes the process through which protection of riparian/riverine areas and vernal pools would occur within the MSHCP Plan Area. The purpose

[1] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.
[2] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Version 2.0). Ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-06-16. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
[3] Lichvar, R. W., and S. M. McColley. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TR-08-12. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory. (http://www.crrel.usace.army.mil/library/technicalreports/ERDC-CRREL-TR-08-12.pdf).
[4] Curtis, Katherine E. and Robert Lichevar. 2010. Updated Datasheet for the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States. ERDC/CRREL TN-10-1. Hanover, NH: U.S. Army Engineer Research and Development Center, Cold Regions Research and Engineering Laboratory.

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

CRPR	Comments
	data to accurately determine status in California. Many species have been placed on Rank 4 in previous editions of the "Inventory" and have been removed as survey data has indicated that the species are more common than previously thought. CNPS recommends that species currently included on this list should be monitored to ensure that future substantial declines are minimized.
Extension	**Comments**
.1 – Seriously endangered in California	Species with over 80% of occurrences threatened and/or have a high degree and immediacy of threat.
.2 – Fairly endangered in California	Species with 20-80% of occurrences threatened.
.3 – Not very endangered in California	Species with <20% of occurrences threatened or with no current threats known.

3.3 Jurisdictional Waters

3.3.1 Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a)[5] 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;*

[5] 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.

(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.*

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[6],[7]);
- 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.

[6] 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.

[7] 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.

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

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

State Wetland Definition

The Water Boards define an area as wetland[9] 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;*[10] *and*
3. *Artificial wetlands*[11] *that meet any of the following criteria:*

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

[9] 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].

[10] "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.

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

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

i. Industrial or municipal wastewater treatment or disposal,
ii. Settling of sediment,
iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
iv. Treatment of surface waters,
v. Agricultural crop irrigation or stock watering,
vi. Fire suppression,
vii. Industrial processing or cooling,
viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water, or
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[12]

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.

[12] 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.

3.3.3 California Department of Fish and Wildlife

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

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

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

4.0 RESULTS

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

4.1 Existing Conditions

Historic aerial photography shows that the Project site and environs have been mechanically disturbed regularly since the 1960s. The Project site consists of vacant land that supports disturbed buckwheat scrub, ruderal/disturbed lands, developed lands, and some southern willow scrub. The residential areas within the southern portion of the site were initially installed in the late 1960s. The Project site's central area was previously impacted in the early 1990s as part of a planned housing development that was not built. The perimeter of the Project site is mowed and/or disked on a regular basis for weed abatement and fire protection. The Project site is bordered by Rider Street to the north, Patterson Avenue to the east, Walnut Street to the south, and residential areas to the west.

Elevation on site ranges from approximately 1,531 to 1,578 feet above mean sea level (AMSL) with the site sloping downwards from the southwest to the northeast. The Project site contains four

ephemeral drainage features formed by urban runoff which drain wholly upland areas and do not support a relatively permanent flow of water.

Soils on site consist of Fallbrook rocky sandy loam, 8-15 percent slopes, eroded; Hanford coarse sandy loam, 2-8 percent slopes; Ramona sandy loam, 2-5 percent slopes, eroded; and Ramona sandy loam, 8-15 percent slopes, severely eroded [Exhibit 8 – Soils Map].

4.2 Vegetation Mapping

The Project site supports the following four vegetation types/land uses: Developed/Ornamental, Disturbed Buckwheat Scrub, Ruderal/Disturbed, and Southern Willow Scrub. Tables 4-1 and 4-2 provide a summary of the vegetation types and their corresponding acreage for areas in cell 2432 and outside the Criteria Area.[13] Descriptions of each vegetation type follow the tables. A Vegetation Map is attached as Exhibit 5. Photographs depicting the Project site are shown in Exhibit 6.

Table 4-1. Vegetation/Land Use Types for the Project Site in Criteria Cell 2432

Vegetation/Land Use Type	Onsite (Acres)	Offsite (Acres)	Project Site Totals (Acres)
Developed/Ornamental	7.67	1.62	9.29
Disturbed Buckwheat Scrub	7.74	--	7.74
Ruderal/Disturbed	25.33	0.38	25.71
Southern Willow Scrub	0.13	--	0.13
Total	**40.87**	**2.00**	**42.87**

Table 4-2. Vegetation/Land Use Types for the Project Site Outside the Criteria Area

Vegetation/Land Use Type	Onsite (Acres)	Offsite (Acres)	Project Site Totals (Acres)
Developed/Ornamental	--	2.17	2.17
Disturbed Buckwheat Scrub	--	--	0
Ruderal/Disturbed	--	0.41	0.41
Southern Willow Scrub	--	--	0
Total	**0**	**2.58**	**2.58**

Developed/Ornamental
The Project site supports a total of 11.45 acres (7.67 acres on site and 3.78 acres off site) of developed lands with ornamental vegetation, with 2.17 acres occurring outside of the Criteria

[13] The combined acreage for the individual vegetation categories for the onsite and offsite impact areas are off by 0.01 acre compared with the 45.45-acre total reported above for overall Project site due to rounding error.

Area and 9.29 acres occurring in cell 2432.[14] These areas consist of residential housing in the southern portion and developed areas associated with Patterson Avenue and Rider Street along the northern and eastern edges of the Project site [Exhibit 5 – Vegetation Map]. The dominant plant species is blue gum (*Eucalyptus globulus*). Other species include blue elderberry (*Sambucus nigricans*), Jerusalem thorn (*Parkinsonia aculeata*), and Peruvian pepper tree (*Schinus molle*).

Disturbed Buckwheat Scrub
The Project site supports a total of 7.74 acres, all of which is on site and in criteria cell 2432, of disturbed buckwheat scrub centrally located in the lower elevations of the Project Site [Exhibit 5 – Vegetation Map]. The dominant plant species is California buckwheat (*Eriogonum fasciculatum*). Other species include brittlebush (*Encelia farinosa*) and California sagebrush (*Artemisia californica*).

Ruderal/Disturbed
The Project site supports a total of 26.12 acres (25.33 on site and 0.79 acre off site) of developed/ornamental land, with 0.41 acre occurring outside of the Criteria Area and 25.71 acres occurring in cell 2432. This vegetative community occurs throughout most of the site [Exhibit 5 – Vegetation Map]. Dominant plant species observed include foxtail barley (*Hordeum murinum*), red brome (*Bromus madritensis* ssp. *rubens*), ripgut brome (*Bromus diandrus*), slim oat (*Avena barbata*), stinknet (*Oncosiphon piluliferum*), and summer mustard (*Hirschfeldia incana*). Other species detected include annual burweed (*Ambrosia acanthicarpa*), California cottonrose (*Logfia filaginoides*), castor bean (*Ricinus communis*), coastal heron's bill (*Erodium cicutarium*), common fiddleneck (*Amsinckia intermedia*), common Mediterranean grass (*Schismus barbatus*), common sandaster (*Corethrogyne filaginifolia*), common sunflower (*Helianthus annuus*), coyote brush (*Baccharis pilularis*), doveweed (*Croton setiger*), goldfield (*Lasthenia californica*), Jerusalem thorn, London rocket (*Sisymbrium irio*), mulefat (*Baccharis salicifolia*), Peruvian pepper tree, Russian thistle (*Salsola tragus*), sagebrush combseed (*Pectocarya linearis*), sand pygmy weed (*Crassula connata*), telegraph weed (*Heterotheca grandiflora*), tree tobacco (*Nicotiana glauca*), valley popcorn (*Plagiobothrys canescens*), and vinegarweed (*Trichostema lanceolatum*). The four ephemeral drainages on site occur within this vegetation type.

Southern Willow Scrub
The Project site supports approximately 0.13 acre of southern willow scrub, all of which is on site and in Criteria Cell 2432, and consists of a narrow strip of vegetation associated with Drainage A where it originates at the terminus of Norrisgrove Drive in the northwestern portion of the site. Drainage A is discussed further in Section 4.9 [Exhibit 5 – Vegetation Map]. The dominant plant species in this area is narrowleaf willow (*Salix exigua*). Other species within this area include black willow (*Salix gooddingii*) and mulefat.

[14] The combined acreage for the Developed/Ornamental vegetation category when broken down by inside and outside of the criteria area is off by 0.01 acre due to rounding error.

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 contains Southern Willow Scrub, but does not contain any other special-status vegetation communities, including those others 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 4-3. 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.

Species Name	Status	Habitat Requirements	Occurrence
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.
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.

Species Name	Status	Habitat Requirements	Occurrence
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.
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.

Species Name	Status	Habitat Requirements	Occurrence
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.
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.

Species Name	Status	Habitat Requirements	Occurrence
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.
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.

Species Name	Status	Habitat Requirements	Occurrence
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.
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 animals were detected at the Project site that are considered special status in the context of their usage of the site. One yellow warbler was observed foraging at the site on one occasion. The yellow warbler is a species that is conveyed special status when nesting on a site. However, the Project site does not contain suitable nesting habitat for the yellow warbler and instead the warbler was determined to be foraging/dispersing through the site. As such, the yellow warbler is not considered special-status relative to the Project site as a result of this usage. 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 4-4. 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.

Species Name	Status	Habitat Requirements	Occurrence
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: Not Covered	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.
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.

Species Name	Status	Habitat Requirements	Occurrence
Reptiles			
California glossy snake *Arizona elegans occidentalis*	Federal: None State: SSC MSHCP: Not Covered	Inhabits arid scrub, rocky washes, grasslands, chaparral.	Not expected to 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.	Not expected to 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.	Not expected to 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.
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 MSHCP: Not Covered	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.

Species Name	Status	Habitat Requirements	Occurrence
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.
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.	Not expected to 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 a foraging role. 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.

Species Name	Status	Habitat Requirements	Occurrence
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.
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.	Detected foraging on site but does not breed on site due to a lack of suitable habitat.
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.	Not expected to occur.

Species Name	Status	Habitat Requirements	Occurrence
Dulzura pocket mouse *Chaetodipus californicus 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.
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: FT 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.

Species Name	Status	Habitat Requirements	Occurrence
Yuma myotis *Myotis yumanensis*	Federal: None State: None WBWG: LM MSHCP: Not Covered	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	Does not occur.

STATUS

Federal
FE – Federally Endangered
FT – Federally Threatened
FPT – Federally Proposed Threatened
FC – Federal Candidate
BGEPA– Bald and Golden Eagle Protection Act

State
SE – State Endangered
ST – State Threatened
SC – State Candidate
FP – 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 Observed within the Project Site

Yellow Warbler (*Dendroica petechia*) is designated as a CDFW California Species of Special Concern when nesting. Yellow warblers as a whole nest from northern Alaska eastward to Newfoundland and southward to northern Baja California and Georgia. The species migrates throughout much of North America and winters from Southern California, Arizona and the Gulf Coast southward to central South America (AOU 1998).

Yellow warblers in Southern California 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 (Garrett and Dunn 1981). The yellow warbler is found at elevations from 100 meters to 2,700 meters (330 to 8,900 feet) within riparian habitat and at higher elevations along watercourses with riparian growth (Lowther et al. 1999).

As noted above, the yellow warbler is a species that is conveyed special status when nesting at a site. A single yellow warbler was detected foraging within the developed portions of the Project site within an ornamental tree; however, the Project site does not support suitable potential nesting habitat. The 0.13 acre of southern willow scrub would not support a nesting pair due to its small size and its isolated nature, and no yellow warblers were detected within the southern willow scrub habitat during GLA's biological surveys. Therefore, GLA's biologist concluded that the warbler was dispersing through the site and as such the warbler is not treated as special-status in the context of the loss of habitat under CEQA.

4.5.2 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 Project site supports approximately 33.86 acres of potential foraging habitat (disturbed buckwheat scrub, ruderal/disturbed) but does not support suitable nesting habitat. The loggerhead shrike was not detected during GLA's biological surveys.

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 Project site supports approximately 26.12 acres of potential foraging habitat (ruderal/disturbed). The Swainson's hawk was not detected during GLA's biological surveys.

White-tailed Kite (*Elanus leucurus*) is designated as a California Fully Protected Species by CDFW 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).

The white-tailed kite was not detected during GLA's biological surveys; however, the Project site supports approximately 26.12 acres of potential foraging habitat (ruderal/disturbed). The site does not support suitable nesting habitat. 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. Given that the site does not contain suitable nesting habitat, it is not expected that there would be a scenario where the Project could result in direct harm to a white-tailed kite.

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 and therefore surveys are not required for the pocket mouse, 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 26.12 acres of potential habitat for the Los Angeles pocket mouse (ruderal/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 contains an estimated 26.12 acres of potential habitat for the SKR (ruderal/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.

4.5.3 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.

The burrowing owl was not detected in the Project site during focused burrowing owl surveys conducted by the GLA biologist. The biologist did not observe burrowing owls, or evidence of burrowing owls (e.g., cast pellets, preened feathers, or whitewash clustered at a burrow). GLA did confirm that the approximately 33.86 acres of Project site (ruderal/disturbed, disturbed buckwheat scrub) has the potential to support the burrowing owl.

4.5.4 Fairy Shrimp

On February 14 and May 5, 2022, GLA biologists performed habitat assessments for fairy shrimp habitat. No areas of seasonal ponding (natural or artificial) were observed within the Project site with the potential to support fairy shrimp. Historic aerial photography (Google Earth 2023) from March 9, 2011, shows two ponded areas in the southern portion of the site. However, such ponding is not seen on other aerial imagery from 2006–2023, including imagery from January 22, 2023. Both the 2010-2011 and 2022-2023 rainfall seasons had precipitation totals well above average, with the 2010-2011 water year at 184 percent of average and the 2022-2023 water year at 126 percent of average to date as recorded at the Lake Elsinore, California weather station approximately 16 miles from the Project site. Rainfall totaled 4.26 inches January 2023, and 7.14 inches for October 2022–January 2023. Rainfall in 2010-2011 exceeded rainfall in 2022–2023, starting with a heavy precipitation event in December 2010. Total rainfall at the Lake Elsinore weather station totaled 18.41 inches for December 2010–March 2011.

The Project site is highly disturbed from past grading and stockpiling of debris and the ponded areas seen on the March 2011 aerial consist of construction scrapes from past disturbance. Ponding rarely occurs following very heavy precipitation that saturates the sandy loam soils to

the extent that water cannot drain, such as in March 2011, but these areas do not typically exhibit hydrology sufficient to support fairy shrimp and do not constitute vernal pools or other features suitable for fairy shrimp.

4.5.5 Raptor Use

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

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

The 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 low density residential and undeveloped lands to the north, south, and east, and by single-family residential development to the west. Small mammal burrows including California ground squirrel burrows were detected within the Project site. Lizard and snake species were detected during surveys within the disturbed buckwheat scrub. The majority of the perimeter of the site is routinely mowed and/or disked for weed abatement. As described in Section 4.5.2 above, there is potential (albeit low potential) for Swainson's hawk, northern harrier, and white-tailed kite to forage on the Project site. A total of 33.86 acres of potential foraging habitat is present for raptors. The Project site does not support potential nesting habitat for these species on site.

4.6 Nesting Birds

The Project site contains trees, shrubs, and ground cover that provide 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.[15]

[15] 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.

Common bird species observed on the Project site included American crow (*Corvus brachyrhynchos*), Anna's hummingbird (*Calypte anna*), barn swallow (*Hirundo rustica*), black phoebe (*Sayornis nigricans*), bushtit (*Psaltriparus minimus*), California towhee (*Melozone crissalis*), Costa's hummingbird (*Calypte costae*), Eurasian collared-dove (*Streptopelia decaocto*), European starling (*Sturnus vulgaris*), great egret (*Ardea alba*), hooded oriole (*Icterus cucullatus*), house finch (*Haemorhous mexicanus*), house sparrow (*Passer domesticus*), house wren (*Troglodytes aedon*), lesser goldfinch (*Spinus psaltria*), mourning dove (*Zenaida macroura*), northern mockingbird (*Mimus polyglottos*), red-tailed hawk (*Buteo jamaicensis*), Say's phoebe (*Sayornis saya*), western kingbird (*Sayornis verticalis*), western meadowlark (*Sturnella neglecta*), white-crowned sparrow (*Zonotrichia leucophrys*), yellow warbler (*Setophaga petechia*), and yellow-rumped warbler (*Setophaga coronata*).

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.

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 surrounded by low density residential and undeveloped lands to the north, south, and east, and by single-family residential development to the west. The Project site does not occur within an existing or proposed Core, Linkage, or Constrained Linkage as identified by the MSHCP. As noted above, the Project site is within the northernmost portion of Cell Group B, and areas described for conservation by the MSHCP consists of the southern 70 to 80% of the Cell Group. 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.

4.8 Critical Habitat

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

4.9 Jurisdictional Waters

The Onsite Project site supports four ephemeral drainages (Drainages A through D), which originate on the western and southwestern borders of the site and flow in a northeasterly direction. Drainages A, B, and C are primarily fed from urban runoff while Drainage D originates wholly within onsite uplands. The features drain wholly within uplands on the Project site and result in shallow impoundments at the terminus of the drainage course.

The Offsite Project site also supports one Roadside Ditch which originates at the southeastern corner of Rider Street and Patterson Avenue and flows in an easterly direction. This ditch is primarily fed by urban runoff.

4.9.1 Corps Jurisdiction

Drainages on site consist of ephemeral features that terminate on site and do not connect to any downstream jurisdictional waters. Drainages A and B originate onsite directly as a result of runoff from the adjacent residential development. Drainages C and D also originate onsite and are associated with runoff from adjacent dirt roads. As such, the drainage features within the Project site are isolated and would not be subject to Corps jurisdiction.

The Roadside Ditch along Rider Street would not be regulated by the Corps, as roadside ditches excavated wholly in and draining only uplands that do not carry a relatively permanent flow of water would not be subject to Corps jurisdiction.

4.9.2 Regional Board Jurisdiction

Regional board jurisdiction associated with the Project site totals 0.14 acre, none of which consists of state wetlands, and a total of 2,880 linear feet of ephemeral drainage is present.[16] Drainages A–D are located wholly onsite, and the Roadside Ditch is offsite. The extent of Regional Board jurisdiction is depicted on Exhibit 9A.

The jurisdictional delineation report is included as Appendix C.

Table 4-5: Summary of Regional Board Jurisdiction

Drainage Name	Regional Board Non-Wetland Waters (acres)	Regional Board Jurisdictional Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Onsite				
Drainage A	0.05	0	0.05	1,302
Drainage B	0.02	0	0.02	529
Drainage C	0.01	0	0.01	353

[16] The combined acreage for the individual drainages is off by 0.01 acre compared with the 0.14-acre total Regional Board jurisdiction due to rounding error.

Drainage Name	Regional Board Non-Wetland Waters (acres)	Regional Board Jurisdictional Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Drainage D	0.01	0	0.01	221
Offsite				
Roadside Ditch	0.04	0	0.04	475
Onsite Total	**0.09**	**0**	**0.09**	**2,405**
Offsite Total	**0.04**	**0**	**0.04**	**475**
Project Total	**0.14**	**0**	**0.14**	**2,880**

4.9.3 CDFW Jurisdiction

CDFW jurisdiction associated with the Project site totals 0.35 acres, 0.13 acre of which consists of riparian habitat. A total of 2,880 linear feet of ephemeral drainage is present, of which 274 linear feet consists of riparian habitat. The extent of CDFW jurisdiction is depicted on Exhibit 9B.

Table 4-6: Summary of CDFW Jurisdiction

Drainage Name	CDFW Non-riparian Stream (acres)	CDFW Riparian Habitat (acres)	Total Potential CDFW Jurisdiction (acres)	Length (linear feet)
Onsite				
Drainage A	0.04	0.13	0.17	1,302
Drainage B	0.02	0	0.02	529
Drainage C	0.01	0	0.01	353
Drainage D	0.02	0	0.02	221
Offsite				
Roadside Ditch	0.13	0	0.13	475
Onsite Total	**0.09**	**0.13**	**0.22**	**2,405**
Offsite Total	**0.13**	**0**	**0.13**	**475**
Project Total	**0.22**	**0.13**	**0.35**	**2,880**

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 riparian/riverine jurisdiction in the Project site is identical to that of CDFW jurisdiction and totals 0.35 acre of riparian/riverine areas and includes 2,880 linear feet of ephemeral streambed. Approximately 0.13 acre (274 linear feet) of the total 0.35 acre supports riparian vegetation (southern willow scrub), and approximately 0.22 acre supports upland vegetation types (disturbed buckwheat scrub and ruderal/disturbed) [Exhibit 10 – MSHCP Riparian/Riverine Map]. The entirety of Drainages A, B, C, and D occur within cell 2432, while the roadside ditch is outside the criteria area.

Table 4-7: Summary of Riparian/Riverine Jurisdiction

Drainage Name	Disturbed Buckwheat Scrub (Acres)	Ruderal/Disturbed (Acres)	Southern Willow Scrub (Acres)	Total MSHCP Riparian/ Riverine (Acres)
Onsite (Cell 2432)				
Drainage A	0	0.04	0.13	0.17
Drainage B	0.01	0.01	0	0.02
Drainage C	0	0.01	0	0.01
Drainage D	0	0.02	0	0.02
Onsite Subtotal	***0.01***	***0.08***	***0.13***	***0.22***
Offsite (Outside Criteria Area)				
Roadside Ditch	0	0.13	0	0.13
Offsite Subtotal	***0***	***0.13***	***0***	***0.13***
Project Total	**0.01**	**0.21**	**0.13**	**0.35**

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. Furthermore, as discussed above the Project does not have the potential to support listed fairy shrimp.

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. The limited riparian vegetation on site is too small and isolated to provide nesting habitat to these species. The least Bell's vireo requires riparian corridors with a diversity of vegetative height, which is not present in the riparian vegetation on site. The small and isolated nature of the riparian on site, as well as the ephemeral nature of the associated streambed, precludes the

presence of the southwestern willow flycatcher and western yellow-billed cuckoo which both require standing or running water and dense patches of riparian habitat.

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 proposed Project will not impact 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 26.12 acres of potential habitat for SKR occurs 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. 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 the 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, white-tailed kite, and yellow warbler; 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), yellow warbler (foraging/dispersing 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, white-tailed kite, and yellow warbler). 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 proposed Project would permanently impact approximately 45.45 acres of lands through grading, including areas of remedial grading that will not be restored to pre-project conditions. Permanent impacts include approximately 11.45 acres of developed/ornamental areas, 7.74 acres of disturbed buckwheat scrub, 26.12 acres of ruderal/disturbed lands, and 0.13 acre of southern willow scrub. Table 5-1 and 5-2 provide a summary of impacts to vegetation/land use types for areas in Cell 2432 and outside the Criteria Area.[17] One sensitive vegetation community, southern willow scrub, would be impacted by the Project.

Table 5-1. Summary of Vegetation/Land Use Impacts in Cell 2432

Vegetation/Land Use Type	Onsite (Acres)	Offsite (Acres)	Project Site Totals (Acres)
Developed/Ornamental	7.67	1.62	9.29
Disturbed Buckwheat Scrub	7.74	--	7.74
Ruderal/Disturbed	25.33	0.38	25.71
Southern Willow Scrub	0.13	--	0.13
Total	**40.87**	**2.00**	**42.84**

[17] The combined acreage for the individual vegetation categories is off by 0.01 acre compared with the 45.45-acre total reported above for overall Project site due to rounding error.

Table 5-2. Summary of Vegetation/Land Use Impacts Outside of the Criteria Area

Vegetation/Land Use Type	Onsite (Acres)	Offsite (Acres)	Project Site Totals (Acres)
Developed/Ornamental	--	2.17	2.17
Disturbed Buckwheat Scrub	--	--	0
Ruderal/Disturbed	--	0.41	0.41
Southern Willow Scrub	--	--	0
Total	**0**	**2.58**	**2.58**

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 low density residential and undeveloped lands to the north, south, and east, by industrial warehouse development to the southeast, and by single-family residential development to the 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 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 would be those

that 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.

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, as proposed, will result in permanent impacts to 0.14 acre of Regional Board jurisdiction, none of which consist of jurisdictional wetlands, and 0.35 acre of CDFW jurisdiction, of which 0.13 acre consists of vegetated riparian habitat, as shown in Tables 5-2 and 5-3 below. A total of 2,880 linear feet of ephemeral drainage will be permanently disturbed [Exhibits 9A and 9B].

Table 5-3: Summary of Impacts to Regional Board Jurisdiction

Drainage Name	Regional Board Non-Wetland Waters (acres)	Regional Board Jurisdictional Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Onsite				
Drainage A	0.05	0	0.05	1,302
Drainage B	0.02	0	0.02	529
Drainage C	0.01	0	0.01	353

Drainage Name	Regional Board Non-Wetland Waters (acres)	Regional Board Jurisdictional Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Drainage D	0.01	0	0.01	221
Offsite				
Roadside Ditch	0.04	0	0.04	475
Onsite Total	**0.09**	**0**	**0.09**	**2,405**
Offsite Total	**0.04**	**0**	**0.04**	**475**
Project Total	**0.14**	**0**	**0.14**	**2,880**

Table 5-4: Summary of Impacts to CDFW Jurisdiction

Drainage Name	CDFW Non-riparian Stream (acres)	CDFW Riparian Habitat (acres)	Total Potential CDFW Jurisdiction (acres)	Length (linear feet)
Onsite				
Drainage A	0.04	0.13	0.17	1,302
Drainage B	0.02	0	0.02	529
Drainage C	0.01	0	0.01	353
Drainage D	0.02	0	0.02	221
Offsite				
Roadside Ditch	0.13	0	0.13	475
Onsite Total	**0.09**	**0.13**	**0.22**	**2,405**
Offsite Total	**0.13**	**0**	**0.13**	**475**
Project Total	**0.22**	**0.13**	**0.35**	**2,880**

These features would support water flow only during and shortly after rainfall. The non-riparian features do not provide habitat to plant or wildlife species beyond what the adjacent uplands provide. The riparian area on site, while providing habitat to plant or wildlife species, is small and isolated. Although removal of these features trigger CWA Sections 401 and Fish and Game Code Section 1602 permitting/authorizations, the removal of 0.35 acre of state waters consisting of shallow, ephemeral drainages, and including 0.13 acre of riparian habitat, would not significantly impact water resources or associated biological resources in the vicinity or at a regional level. As such, the proposed impact would be less than significant without mitigation incorporated under CEQA. Regardless of the need for mitigation pursuant to CEQA, the loss of jurisdictional waters will require mitigation in order to obtain permits from the Regional Board and CDFW. Mitigation for impacts to jurisdictional waters is discussed below in Section 6.0.

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.

The Project would permanently remove 0.35 acre of riparian/riverine resources, including 0.13 acre of riparian vegetation (southern willow scrub) onsite and 0.22 acre (0.09 acre onsite and 0.13 acre offsite) of riverine areas that are either unvegetated or support sparse upland vegetation (disturbed buckwheat scrub, ruderal/disturbed). All of the onsite impacts (0.13 acre riparian and 0.09 acre riverine) are located in Cell 2432, and all offsite impacts (0.13 acre riverine) are located outside the Criteria Area. The unavoidable impacts to MSHCP riverine resources will require the approval of a DBESP, including mitigation, which is addressed below in Section 6.0 and 7.0 of this report.

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.

The Project site is not currently adjacent to the MSHCP Conservation Area; however, based on the Criteria for Cell Group B of the Mead Valley Area Plan, it is possible that lands to the southwest of the Project could become part of the Conservation Area in the future. Therefore, the Project could have future adjacency or very close proximity to the Conservation Area. The Project is not expected to result in significant indirect impacts to special-status biological resources, with the implementation of 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. To minimize potential edge effects, the guidelines are to be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area. The Project will implement measure consistent with the MSHCP guidelines to address the following:

- Drainage;
- Toxics;
- Lighting;
- Noise;
- Invasives;
- Barriers; and
- Grading/Land Development.

5.10.1 Drainage

Proposed Projects in proximity to the MSHCP Conservation Area shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. Stormwater

systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.

The Project's contractor will develop a Stormwater Pollution Prevention Plan (SWPPP) to runoff and water quality during construction. However, following the completion of activities, drainage on site will be directed initially to several on site catch basins, which will then drain into a constructed storm drain in the southeastern portion of the project site, and will not in any way result in increased drainage to the MSHCP Conservation Area. As such, no measures would be required post-construction.

5.10.2 Toxics

Land uses proposed in proximity to the MSHCP Conservation Area that use chemicals or generate bioproducts such as manure that are potentially toxic or may adversely affect wildlife species, habitat or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharge to the MSHCP Conservation Area. Measures such as those employed to address drainage issues shall be implemented. The proposed Project will implement a SWPPP that will address runoff during construction. Runoff on the Project site will not drain into the Conservation Area, as discussed in Section 5.10.1. As such, no additional measures addressing toxics would be required post-construction.

5.10.3 Lighting

Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. If night lighting is required during construction, shielding shall be incorporated to ensure ambient lighting in the MSHCP Conservation Area is not increased. The Project site is not currently adjacent to the MSHCP Conservation Area, but lands diagonally to the southwest have potential for future inclusion into the Conservation Area. As such, lighting along the southern edge of the Project, particularly in the southwest corner, will be down-shielded and directed away such that illumination will not occur to areas with potential for future inclusion in the Conservation Area.

5.10.4 Noise

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

The proposed Project is not currently located adjacent to the MSHCP Conservation Area, but lands diagonally to the southwest have potential for future inclusion into the Conservation Area.

The Project will not result in an increase in noise in potential future conserved lands that would exceed residential noise standards.

5.10.5 Invasive Species

Projects adjacent to the MSHCP Conservation Area shall avoid the use of invasive plant species in landscaping, including invasive, non-native plant species listed in Volume I, *Table 6-2* of the MSHCP.

The proposed Project is not currently located adjacent to the MSHCP Conservation Area, but lands diagonally to the southwest have potential for future inclusion into the Conservation Area. The Project landscaping will not include any species from *Table 6-2* of the MSHCP.

5.10.6 Barriers

Proposed land uses adjacent to the MSHCP Conservation Area shall incorporate barriers, where appropriate in individual project designs to minimize unauthorized public access, domestic animal predation, illegal trespass or dumping in the MSHCP Conservation Area. Such barriers may include native landscaping, rocks/boulders, fencing, walls, signage and/or other appropriate mechanisms.

The proposed Project is not currently located adjacent to the MSHCP Conservation Area, but lands diagonally to the southwest have potential for future inclusion into the Conservation Area. The proposed Project's warehouse development will have a retaining wall, landscaped berm, or other barriers to prevent access to the south and west from the facility.

5.10.7 Grading/Land Development

The MSHCP states that manufactured slopes associated with development shall not extend into the MSHCP Conservation Area. Grading from the Project will not extend into the areas with potential for future inclusion into the MSHCP Conservation Area.

5.11 Cumulative Impacts to Biological Resources

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

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 role only), Swainson's hawk (foraging role only), white-tailed kite (foraging role only), yellow warbler (foraging role only), and Los Angeles pocket mouse. 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 status of each species in Western Riverside County, and the small amount of potential habitat proposed for removal, the Project would not make a cumulatively considerable contribution to the regional decline of these species.

6.0 MITIGATION OR 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, 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 was not considered a biologically significant impact under CEQA; however, to comply with state law, the following is recommended:

- As feasible, vegetation clearing should be conducted outside of the nesting season, which is generally identified as February 1 through 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.

6.3 Jurisdictional Waters

As noted above, the Project will result in permanent impacts to 0.14 acre of Regional Board jurisdiction, none of which consist of jurisdictional wetlands, and 0.35 acre of CDFW jurisdiction, of which 0.13 consists of vegetated riparian habitat. A total of 2,880 linear feet of ephemeral drainage will be permanently disturbed.

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

- The Project Proponent shall compensate for permanent impact to 0.14 acre of Regional Board jurisdiction and 0.35 acre of CDFW jurisdiction at a minimum 2:1 mitigation-to-impact ratio, including a minimum of 1:1 establishment, through the purchase of rehabilitation, re-establishment, and/or establishment mitigation credits at the Riverpark Mitigation Bank. If credits are not available at the Riverpark Mitigation Bank, then one possible alternative would be mitigation through the Inland Empire Resource Conservation District (IERCD). However, since CDFW is not signatory to the interagency In-Lieu Fee Program (ILFP) through IERCD, then the mitigation would be developer-responsible. The mitigation would require CDFW review of the proposed mitigation site, a habitat management plan, long-term funding for post-restoration habitat maintenance, conservation easement, and a long-term land manager. The Project proponent would retain legal and financial responsibility for completing the mitigation if performed at an IERCD site.

6.4 MSHCP Riparian/Riverine Areas

As noted above, the Project would permanently impact approximately 0.35 acre of MSHCP riparian/riverine areas. The following measures will address these impacts.

- **DBESP.** A DBESP analysis will be submitted to the wildlife agencies (USFWS, CDFW) to approve impacts to MSHCP riparian/riverine areas.

- **MITIGATION.** The Project Proponent shall compensate for permanent impact to 0.35 acre of MSHCP riparian/riverine areas by purchasing mitigation credits from the Riverpark Mitigation Bank. Mitigation for 0.13 acre of riparian/riverine areas supporting southern willow scrub will consist of 0.13 acre of re-establishment credits (1:1 ratio) and an additional 0.26 acre of re-establishment or rehabilitation credits (2:1 ratio), for an overall 3:1 replacement ratio (0.39 acre). Mitigation for 0.22 acre of riverine areas supporting disturbed buckwheat scrub and ruderal/disturbed areas will consist of 0.22 acre of re-establishment credits (1:1 ratio) and an additional 0.22 acre of re-establishment or rehabilitation credits (1:1 ratio), for an overall 2:1 replacement ratio (0.44 acre). If credits are not available at the Riverpark Mitigation Bank, then one possible alternative would be mitigation through the Inland Empire Resource Conservation District (IERCD). However, since CDFW is not signatory to the interagency In-Lieu Fee Program (ILFP) through IERCD, then the mitigation would be developer-responsible. The mitigation would require CDFW review of the proposed mitigation site, a habitat management plan, long-term funding for post-restoration habitat maintenance, conservation easement, and a long-term land manager. The Project proponent would retain legal and financial responsibility for completing the mitigation if performed at an IERCD site.

7.0 MSHCP CONSISTENCY ANALYSIS

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

7.1 Project Relationship to Reserve Assembly

The Project is located within the Mead Valley Area Plan of the MSHCP within the northeastern quarter of MSHCP Criteria Area Cell 2432 in Cell Group B, and as such, the Project requires HANS and JPR [Exhibit 4A – MSHCP Overlay and Exhibit 11 – MSHCP Reserve Analysis Map]. The MSHCP Cell Criteria for Cell Group B focuses on assembly of coastal sage scrub and grassland habitat, with areas conserved within Cell Group B to be connected to coastal sage scrub and grassland habitat proposed for conservation in Cell Group A to the west and to coastal

sage scrub habitat proposed for conservation in cell 2529 to the east and cell 2633 to the south. The cell criteria describe conservation for 70 to 80 percent of Cell Group B focusing on the southern portion.

The Project site contains 7.74 acres of disturbed buckwheat scrub habitat and no grassland habitat. Rider Street and Patterson Avenue are both covered roads. To date, no parcels in Cell Group B have been conserved to contribute to reserve assembly. The Project site represents approximately 15 percent of the Cell Group and is located in the northeastern part. As shown in Table 7-1 below, with construction of the Project, Cell Group B will have 227.94 acres of lands potentially available for conservation, which is within the 70 to 80% described for conservation. As such, the Project site is not expected to be conserved to support Reserve Assembly.

Table 7-1: Reserve Analysis for Cell Group B

Feature	Acres	Comments
Total Area of Cell Group B	320.75	Conservation described for 70 to 80% (224.53–256.60 acres) in the southern portion of Cell Group B
Development		
Proposed Project	42.92	Onsite: 40.88 acres; offsite: 2.05 acres
Covered Roads	3.29	Rider and Patterson ROW
Existing Development	21.26	
Pending Development (Approved JPR)	25.34	
Development Subtotal	92.81	
ARL Conserved Lands		
ARL Conserved Lands in Group B	0	
Undeveloped Lands Potentially Available for Conservation		
In Cell Group B	227.94	
Cell Group B = Total Conserved + Undeveloped and Available for Conservation	227.94	Need 224.53–256.60 acres in southern portion of Cell Group; With development of proposed Project, Cell Group B can meet its goal

7.2 Covered Roads

Section 7.3.5 of the MSHCP addresses planned roads within the Criteria Area, also referred to as "Covered Roads." Planned roadways are defined as either existing facilities that require improvements (i.e., widening) or as new facilities to be constructed as identified as part of County's General Plan circulation element (MSHCP Figure 7-1). The Project proposes to improve sections of two roadways identified as "Covered Roads" that are at least partially with Criteria Cells, including Rider Street and Patterson Avenue.

As mentioned above, both Rider Street and Patterson Avenue are covered roads. Rider Street has a maximum allowable width of 118 feet and Patterson Avenue has maximum allowable width of

110 feet. Nearly all of the Rider Street alignment is outside of Criteria Cells, and roughly half of the Patterson Avenue alignment is outside of Criteria Cells. Improvements to Rider Street and Patterson Avenue would not exceed the maximum allowable width:

7.2.1 Rider Street

The Project will improve approximately 3,268 linear feet of Rider Street; of which approximately 1,424 linear feet is in the Criteria Area (Cell 2432) in terms of length; however, only a portion of the width of Rider Street is within Cell 2432. Rider Street is identified as a "major road" in the General Plan Circulation Element, with a 118-foot ROW, and therefore the MSHCP allowable covered width for permanent impacts for Rider Street within the Criteria Area is 118 feet, encompassing all road elements, including the road shoulder. However, Rider Street straddles the Criteria Area boundary such that only a portion of the width of the road is within Cell 2432.

Improvements to Rider Street would occur along the Project site's frontage to include the construction of additional roadway surface (the width of which varies), curb and gutter, a five-foot-wide curb-separated sidewalk, and streetscape landscaping. The total width of the ultimate street section ranges from 80 feet to 106 feet, and the Project's maximum width of improvements would be 73 feet. Lane restriping also would occur on Rider Street to the east and to the west of the Project site.

7.2.2 Patterson Avenue.

The Project will improve approximately 1,374 linear feet of Patterson Avenue; of which approximately 1,330 linear feet is in the Criteria Area (Cell 2432) in terms of length; however, only a portion of the width of Patterson Avenue is within Cell 2432. Patterson Avenue is identified as a "secondary road" in the General Plan Circulation Element, with a 100-foot ROW, and therefore the MSHCP allowable covered width for permanent impacts for Patterson Avenue within the Criteria Area is 100 feet, encompassing all road elements, including the road shoulder. However, Patterson Avenue straddles the Criteria Area boundary such that only a portion of the width of the road is within Cell 2432.

Improvements proposed along the Project site's frontage with Patterson Avenue would include the installation of additional roadway surface (the width of which varies), and the construction of curb and gutter, a six-foot-wide curb-adjacent sidewalk, and streetscape landscaping. A 10-foot-wide community trail with split rail fence would be installed to the west of the sidewalk outside of the public right-of-way. The total width of the ultimate street section is 86 feet and the Project's maximum width of improvements would be 66 feet.

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

As discussed in Section 5.9 of this report, the proposed Project will impact approximately 0.35 acre of MSHCP riparian/riverine areas. As such, a DBESP is required for the proposed Project to 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).

7.4 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.

7.5 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 proposed Project is not currently located adjacent to the MSHCP Conservation Area, but lands diagonally to the southwest have potential for future inclusion into the Conservation Area. The Project will implement applicable measures to minimize adverse indirect impacts on special-status resources within Conserved Lands. The proposed Project will be consistent with *Section 6.1.4* of the MSHCP.

7.6 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, 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.*

7.7 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, covered roads, *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).

8.0 REFERENCES

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken. 2012. The Jepson Manual: Vascular Plants of California, Second Edition. University of California Press. 1,568 pp.

Bleich, V.C. 1973. Ecology of rodents at the United States Naval Weapons Station Seal Beach, Fallbrook Naval Weapons Annex, San Diego County, California. M.A. Thesis, California State University, Long Beach.

Bleich, V.C. and O.A. Schwartz. 1974. Western range extension of Stephens' kangaroo rat (*Dipodomys stephensi*), a threatened species. California Department of Fish and Game 60:208-210.

Bleich, V.C. 1977. *Dipodomys stephensi*. Mammalian Species 73:1-3.

Brown, L., and D. Amadon. 1968. Eagles, hawks and falcons of the world. 2 Vols. Country Life Books, London. 945pp.

Brylski, P., L. Barkley, B. McKernan, S.J. Montgomery, R. Minnich, and M. Price. 1993. Proceedings of the Biology and Management of Rodents in Southern California Symposium. San Bernardino County Museum, Redlands, California, June 26, 1993. Presented by the Southern California Chapter of the Wildlife Society.

California Department of Fish and Wildlife. 2016. Complete List of Amphibian, Reptile, Bird and Mammal Species in California.

California Department of Fish and Wildlife. 2021. California Natural Community List. California Natural Resources Agency, August 18, 2021.

California Department of Fish and Wildlife. 2018. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. State of California, Natural Resources Agency, Department of Fish and Wildlife. March 20, 2018.

California Department of Fish and Wildlife. 2022. Special Animals List. State of California Natural Resources Agency, October 2022.

California Department of Fish and Wildlife. 2022. State and Federally Listed Endangered and Threatened Animals of California. State of California Natural Resources Agency. Sacramento, California. April 2022.

California Invasive Plant Council. Cal-IPC Inventory. Accessed March 7, 2022. https://www.cal-ipc.org/plants/inventory/.http://cal-ipc.org/paf/.

California Native Plant Society. 2001. Inventory of Rare and Endangered Plants of California (sixth edition). Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society. Sacramento, CA. x + 388pp.

California Native Plant Society, Rare Plant Program. 2022. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.5). Accessed March 7, 2022. http://www.rareplants.cnps.org.

California Natural Diversity Database (CNDDB). 2022. RareFind 5. Records of occurrence for USGS 7.5-minute quadrangle maps: Alberhill, Lake Elsinore, Lake Mathews, Perris, Riverside East, Riverside West, Romoland, Steele Peak, and Sunnymead. California Department of Fish and Wildlife, State of California Natural Resources Agency. Sacramento, California. Accessed March 7, 2022. https://wildlife.ca.gov/Data/CNDDB/Maps-and-Data.

Chesser, R.T. et al. 2021. Check-list of North American Birds (online). American Ornithological Society. Accessed March 7, 2022. http://checklist.americanornithology.org/taxa.

Collins, Joseph T. and Travis W. Taggart. 2009. Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodilians, Sixth Edition. Publication of The Center for North American Herpetology, Lawrence, Kansas. iv+44p.

Dudek & Associates. 2003. Western Riverside County Multiple Species Habitat Conservation Plan. Volumes 1 – 5. Prepared for the Transportation and Land Management Agency, County of Riverside, California as part of the Riverside County Integrated Project. https://www.rctlma.org/Portals/0/mshcp/index.html.

Dunk, J. R. 1995. White-tailed kite (*Elanus leucurus*). *In* The Birds of North America, No. 178 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C.

Garrett, K. and J. Dunn. 1981. Birds of Southern California: Status and Distribution. Los Angeles Audubon Society. 407 pp.

Grinnell, J. 1933. Review of the recent mammal fauna of California. Univ. Calif. Publ. Zool. 40:71-234.

Haug, E. A., B. A. Millsap, and M. S. Martell. 1993. Burrowing Owl (*Speotyto cunicularia*). In The Birds of North America, No. 130 (A. Poole and F. Gill, Eds.). Philadelphia: The Academy of Natural Sciences; Washington, D.C.: The American Ornithologists' Union.

Holland, R. F. 1986. Preliminary Descriptions of the Terrestrial Natural Communities of California. Nongame-Heritage Program, California Department of Fish and Wildlife.

Jameson, E.W. Jr. and H.J. Peters. 1988. *California Mammals*. University of California Berkeley Press. 403 pp.

Lackey, J.A. 1967. Biosystematics of *heermanni* group kangaroo rats in southern California. Transactions of the San Diego Society of Natural History 14:313-344.

Munz, P.A. 1974. A Flora of Southern California. University of California Press. 1,086 pp.

Nelson, J. 1984. Rare plant survey guidelines. In: Inventory of Rare and Endangered Vascular Plants of California. J. Smith and R. York (eds.). Special Publication No. 1. California Native Plant Society.

National Resources Conservation Service. 2022. Soil Survey Staff, United States Department of Agriculture. Web Soil Survey. Accessed March 7, 2022. https://websoilsurvey.sc.egov.usda.gov/.

O'Farrell, M.J. 1990. Stephens' kangaroo rat: natural history, distribution, and current status. In P.J. Bryant and J. Remington (eds.) Memoirs of the Natural History Foundation of Orange County 3:77-84.

Patten, M.A., S. J. Myers, C. McGaugh, and J.R. Easton. ca 1992. Los Angeles pocket mouse (*Perognathus longimembris brevinasus*). Unpublished report by Tierra Madre Consultants, Riverside, California.

Riverside County Habitat Conservation Agency. 1996. Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California.

Sawyer, J.O, T. Keeler-Wolf, and J.M. Evens. 2009. A Manual of California Vegetation. Second Edition. California Native Plant Society Press. Sacramento, California. 1,300 pp.

Sogge, M.K., Ahlers, D., and Sferra, S.J. 2010. A Natural History Summary and Survey Protocol for the Southwestern Willow Flycatcher. U.S Geological Survey Techniques and Methods 2A-10

Stebbins, R. C. 1954. Amphibians and Reptiles of Western North America. McGraw-Hill, New York. 536pp.

Stebbins, R.C. 1985. A Field Guide to Western Reptiles and Amphibians, 2nd ed. Houghton Mifflin Co., Boston, Massachusetts.

Thomas, S.R. 1973. Stephens' kangaroo rat survey. California Department of Fish and Game, Special Wildlife Investigation, Job II-5.6 (final report), 10 pp.

Unitt, P. 1984. The birds of San Diego County. San Diego Society of Natural History: Memoir 13, San Diego, California. 276pp.

USFWS. 1997. Draft Recovery Plan for the Stephens' Kangaroo Rat. Region 1, U.S. Fish and Wildlife Service, Portland, OR, 71 pp.

U.S. Fish and Wildlife Service. 2000. Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants. Sacramento, CA: U.S. Fish and Wildlife Service. Unpublished memorandum; January 2000.

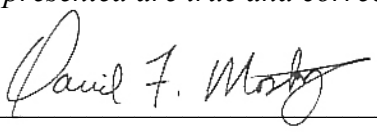
U.S Fish and Wildlife Service. 2001. Least Bell's Vireo Survey Guidelines. January 19, 2001

Western Riverside County Regional Conservation Authority. 2006. Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area. March 29, 2006. https://www.wrc-rca.org/species/survey_protocols/burrowing_owl_survey_instructions.pdf

Yosef, R. 1996. Loggerhead shrike *(Lanius ludovicianus). In* The Birds of North America, No. 231 (A. Poole and F. Gill, eds.). The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C.

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: August 14, 2023

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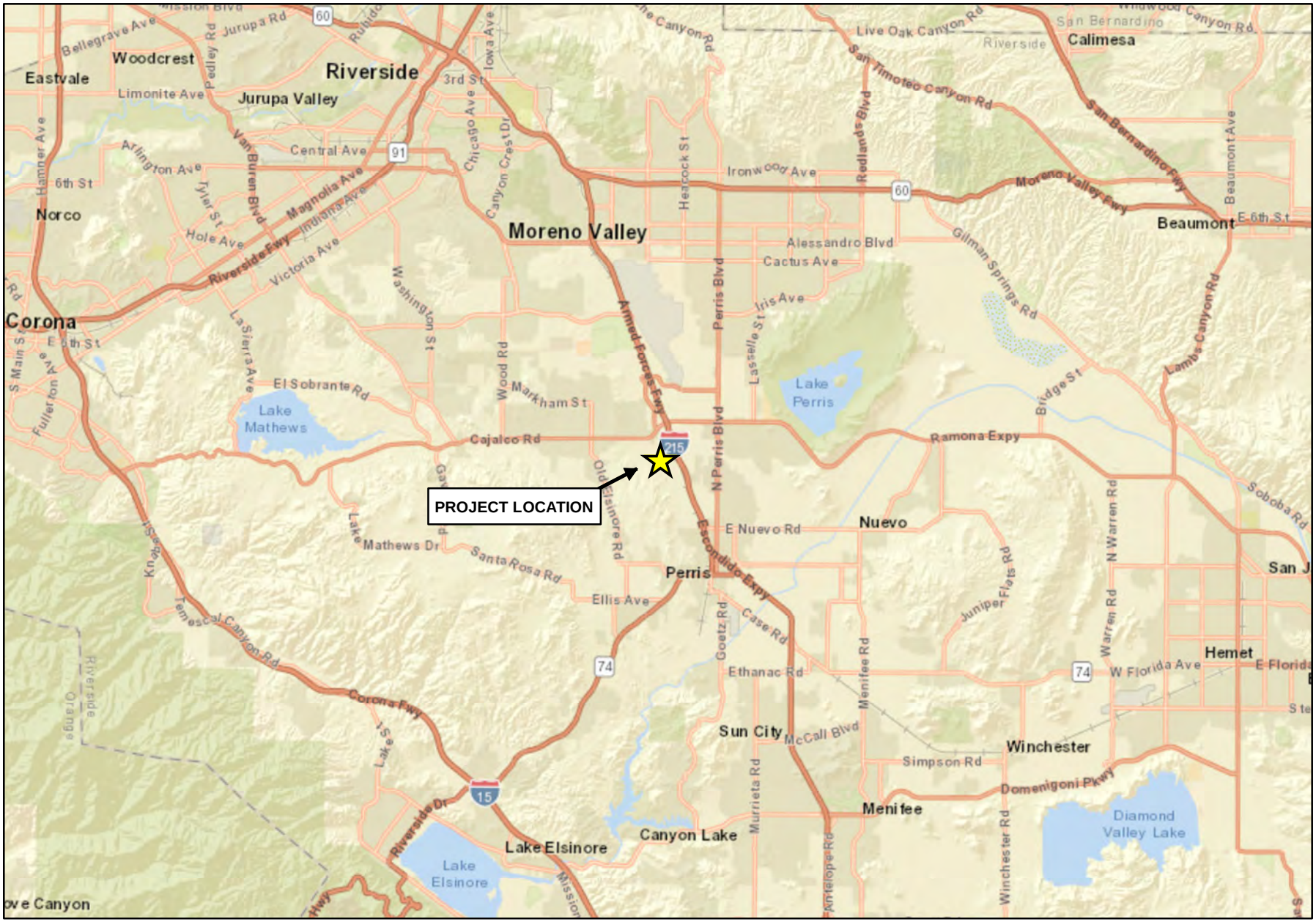


Source: ESRI World Street Map

N

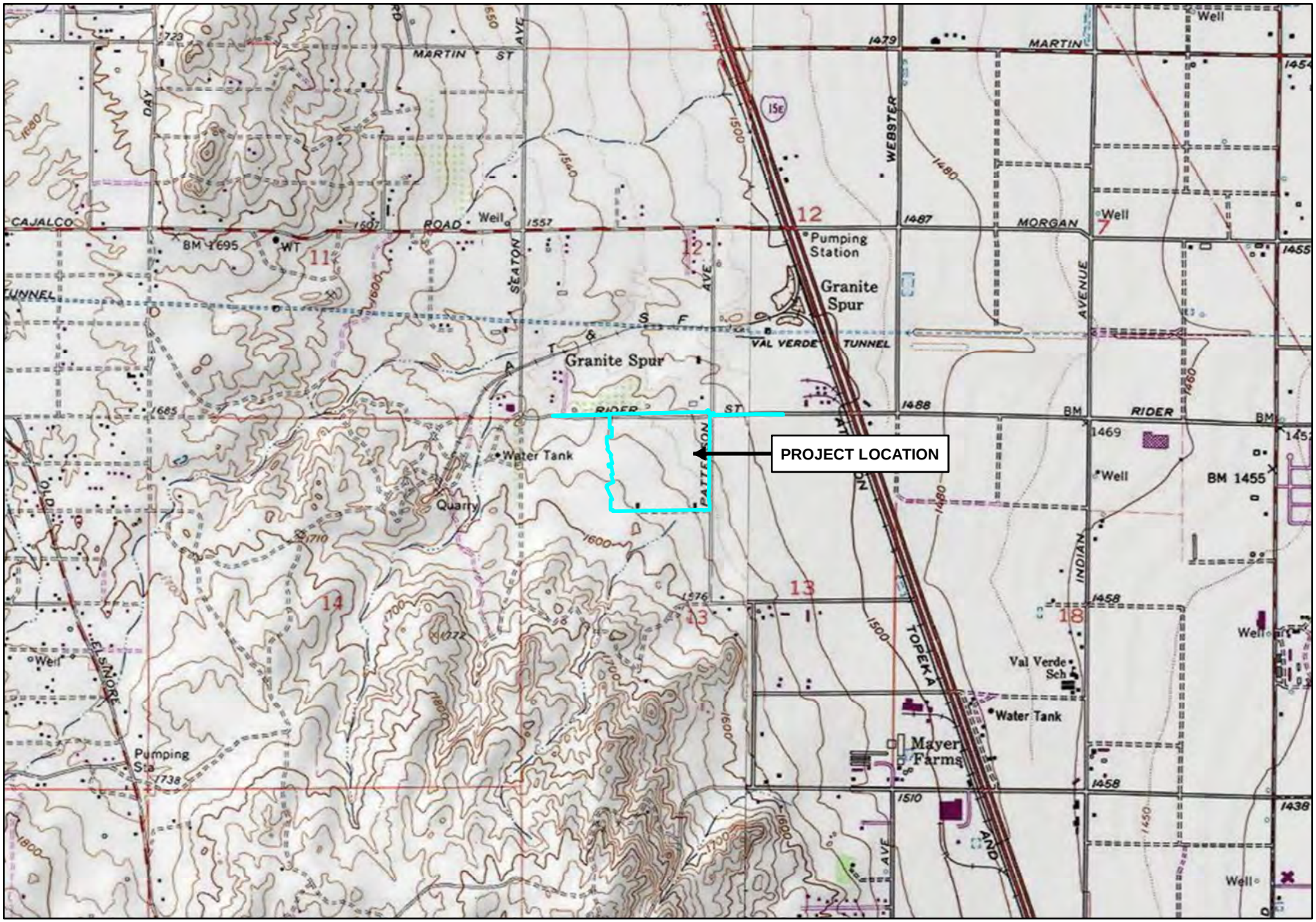
0 2 4 8 Miles

RIDER STREET & PATTERSON AVENUE PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Steele Peak, CA quadrangle

N

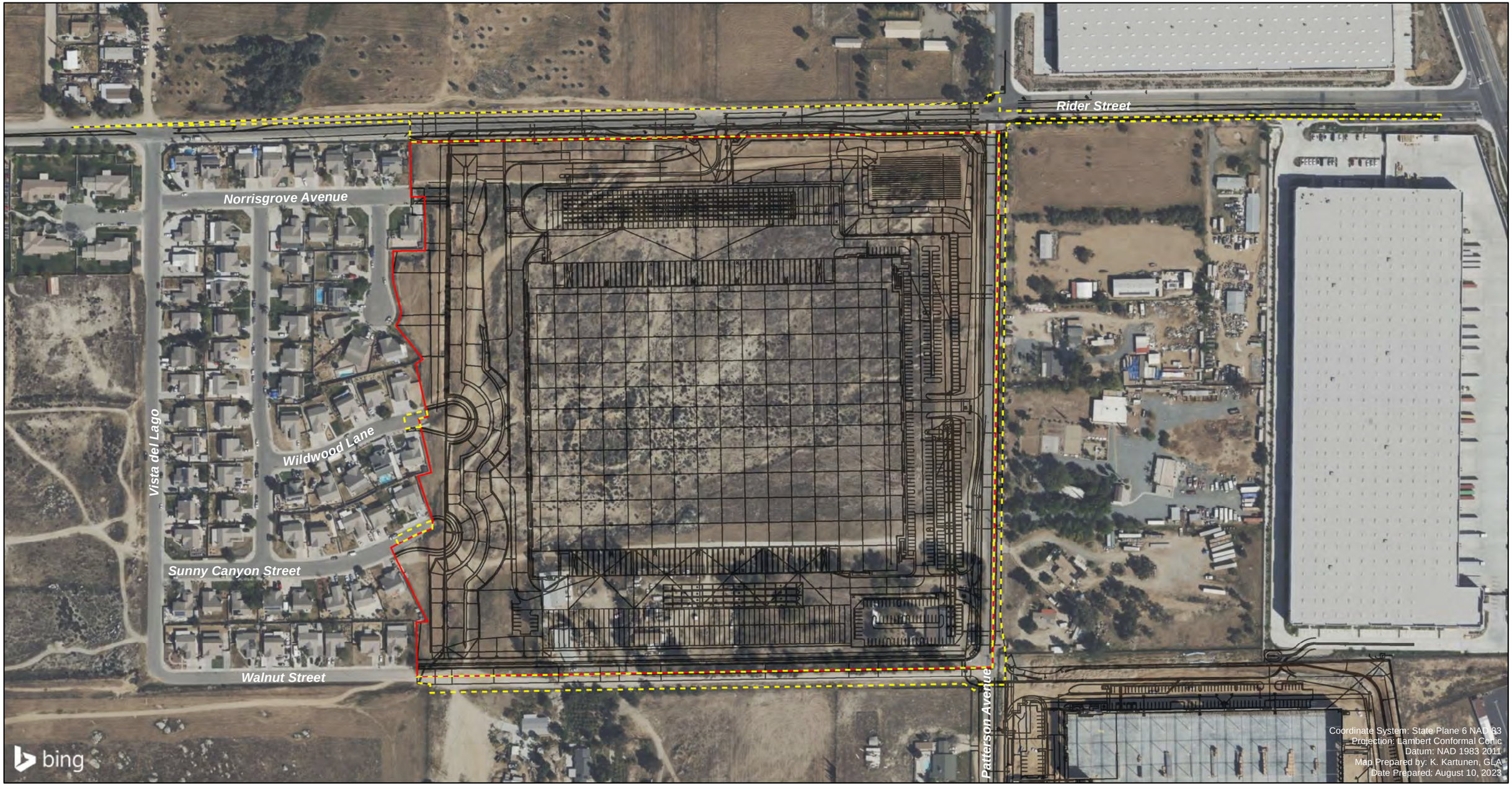
0 1,000 2,000 4,000 Feet

RIDER STREET & PATTERSON AVENUE PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Project - Onsite

Project - Offsite

Project Site Plan

N

0 112.5 225 450

Feet

1 inch = 225 feet

RIDER STREET & PATTERSON AVENUE PROJECT

Site Plan Map

GLENN LUKOS ASSOCIATES

Exhibit 3

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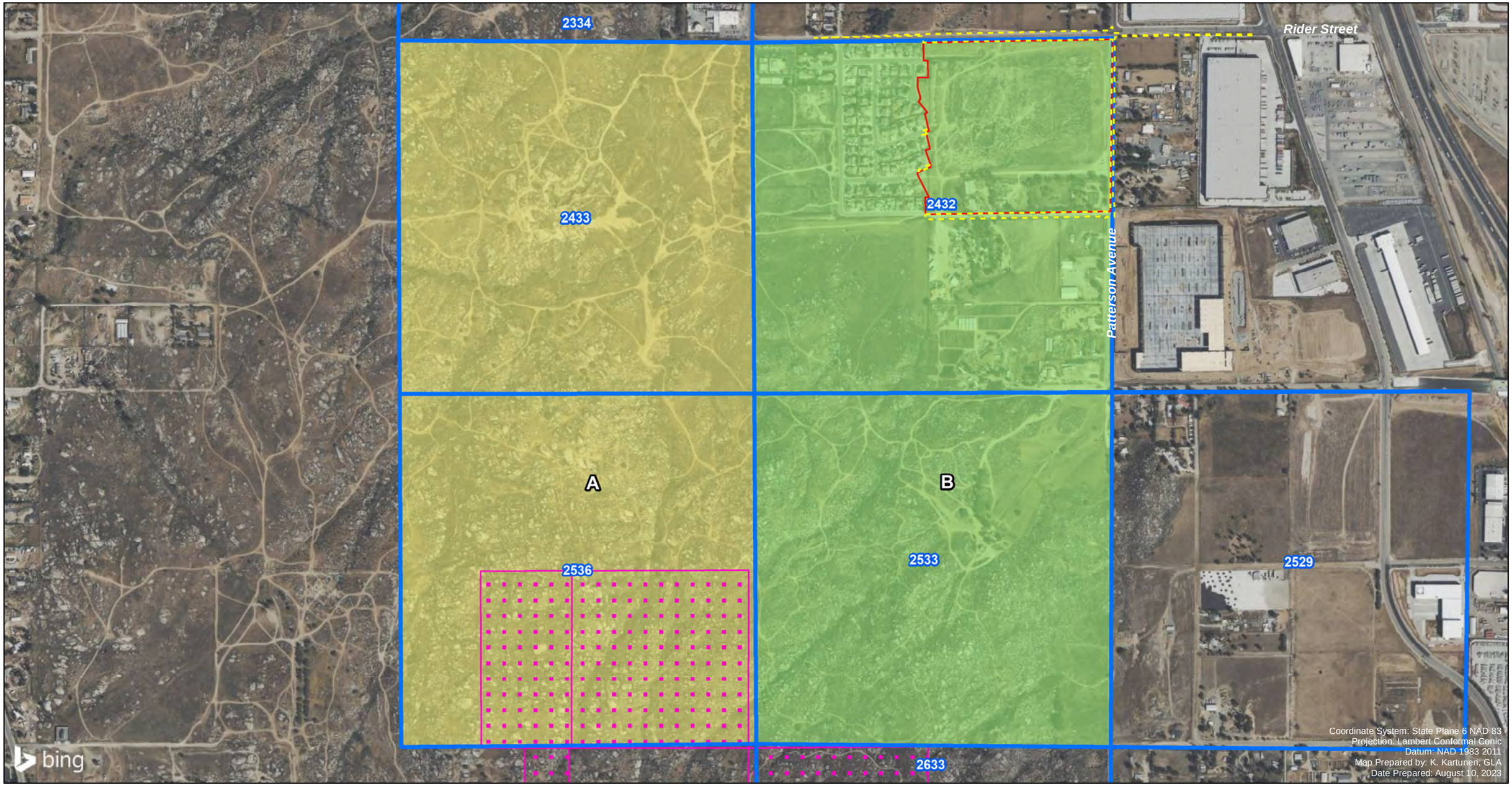


Project - Onsite
Project - Offsite
Criteria Cell
Public Quasi Public Conserved Lands
Cell Group A
Cell Group B

N

0 350 700 1,400
Feet

1 inch = 700 feet

RIDER AND PATTERSON BUSINESS CENTER

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 4A

X:\0363-THE REST\0849-82RIPA\849-82_GIS\MSHCPGIS\849-82_MSHCPOverlay.mxd

Project - Onsite

Project - Offsite

Burrowing Owl Survey Area

N

0 112.5 225 450

Feet

1 inch = 225 feet

RIDER STREET & PATTERSON AVENUE PROJECT

MSHCP Survey Areas Map

GLENN LUKOS ASSOCIATES

Exhibit 4B

X:\0363-THE REST\0849-82RIPA\849-82_GIS\MSHCPGIS\849-82_MSHCPSurveyAreas.mxd

Project - Onsite
Project - Offsite
Developed/Ornamental
Disturbed Buckwheat Scrub
Ruderal/Disturbed
Southern Willow Scrub

N

0 112.5 225 450
Feet

1 inch = 225 feet

RIDER STREET & PATTERSON AVENUE PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 5

X:\0363-THE REST\0849-82RIPA\849-82_GIS\VegetationGIS\849-82_Vegetation.mxd

Photograph 1: View depicting overall conditions present on Project site. Photo taken in the southwestern portion of the site, looking northeast.

Photograph 2: View depicting disturbed buckwheat scrub on site.

GLENN LUKOS ASSOCIATES

RIDER STREET & PATTERSON AVENUE PROJECT

Site Photographs

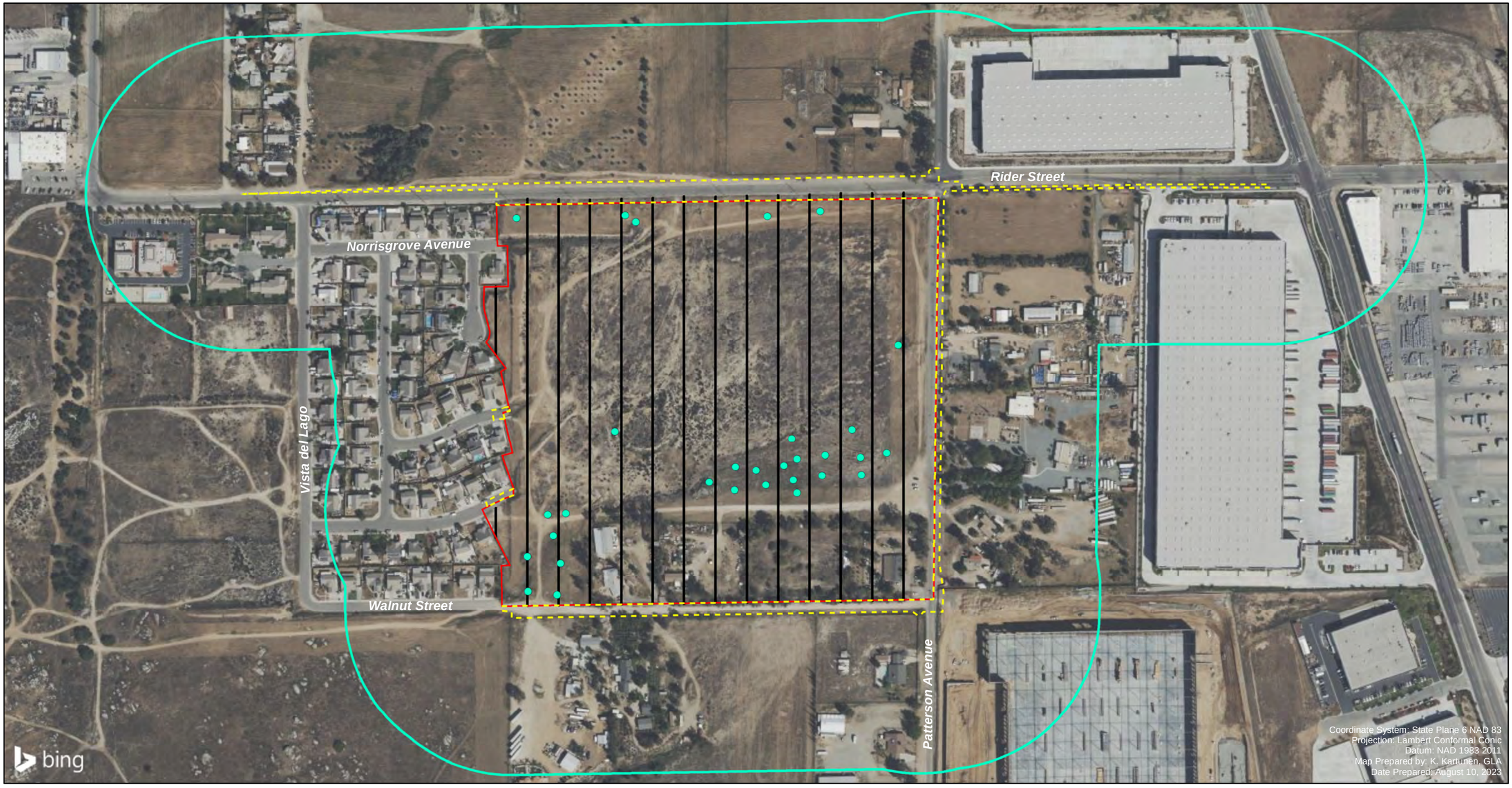
Photograph 3: View depicting a burrow with the potential to support a burrowing owl. Note the lack of any diagnostic sign (e.g. pellets, feathers, etc.) that would indicate burrowing owl presence.

Photograph 4: View depicting the southern willow scrub riparian area in the northwestern portion of the site. View looking northwest.

RIDER STREET & PATTERSON AVENUE PROJECT
Site Photographs

Photograph 5: View depicting an ephemeral drainage in the southwestern portion of the Project site.

Photograph 6: View depicting an ephemeral drainage in the northern portion of the project site.



Project - Onsite

Project - Offsite

500' Visual Survey Area

Transect

Burrow

N

0 150 300 600

Feet

1 inch = 300 feet

RIDER STREET & PATTERSON AVENUE PROJECT

Burrowing Owl Survey Area Map

GLENN LUKOS ASSOCIATES

Exhibit 7

X:\0363-THE REST\0849-82RIPA\849-82_GIS\BUOWGIS\849-82_BUOWSurveyResults.mxd

- Project - Onsite
- Project - Offsite
- FbC2 - Fallbrook sandy loam, shallow, 5 to 8 percent slopes, eroded
- FcD2 - Fallbrook rocky sandy loam, shallow, 8 to 15 percent slopes, eroded
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- RaA - Ramona sandy loam, 0 to 2 percent slopes
- RaB2 - Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaD3 - Ramona sandy loam, 8 to 15 percent slopes, severely eroded

N

0 112.5 225 450

Feet

1 inch = 225 feet

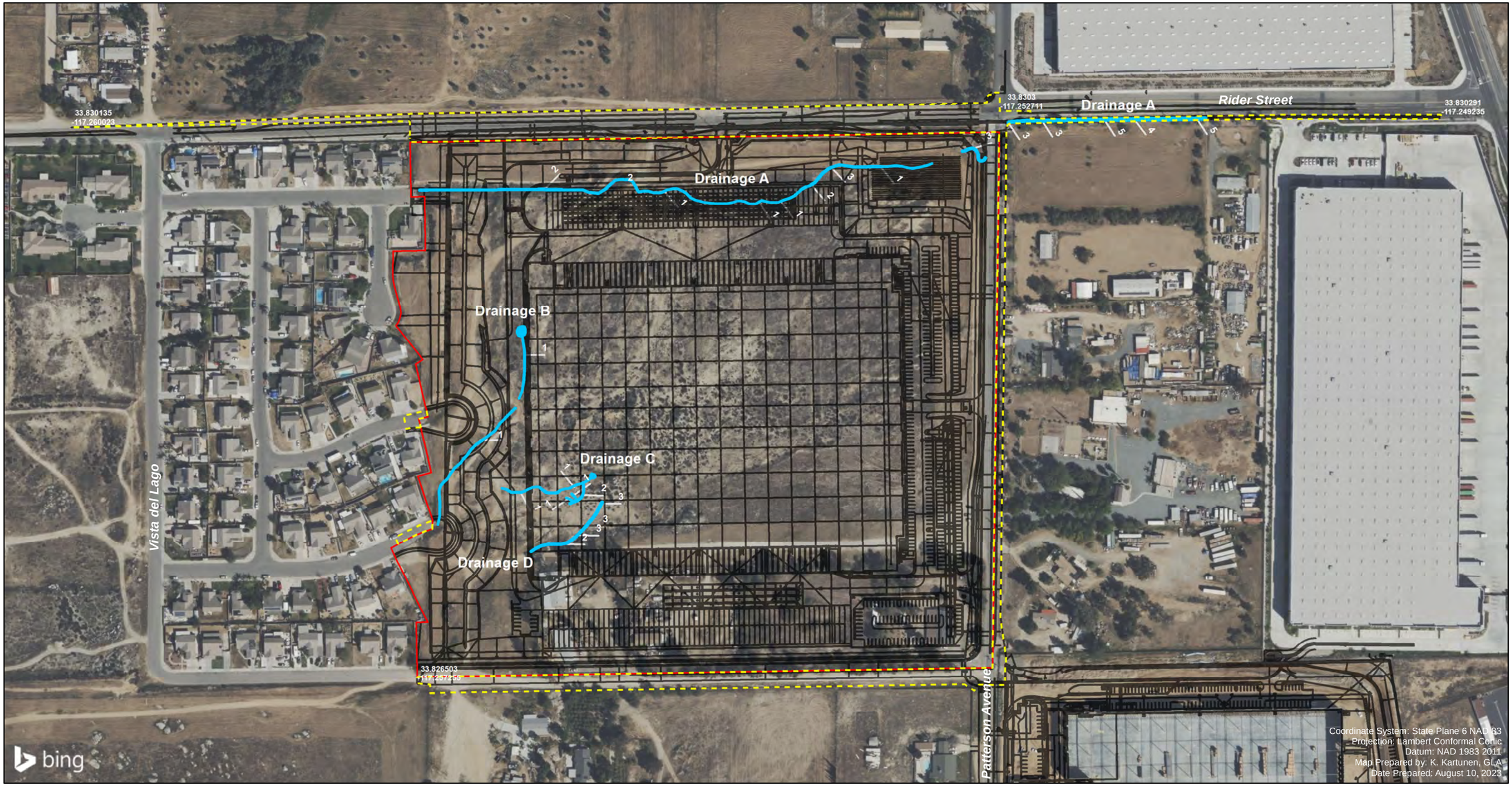
RIDER STREET & PATTERSON AVENUE PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 8

X:\0363-THE REST\0849-82RIPA\849-82_GIS\SoilsGIS\849-82_Soils.mxd



- Project - Onsite
- Project - Offsite
- Project Site Plan
- Non-Wetland Waters of the State
- Width in Feet

N

0 112.5 225 450

Feet

1 inch = 225 feet

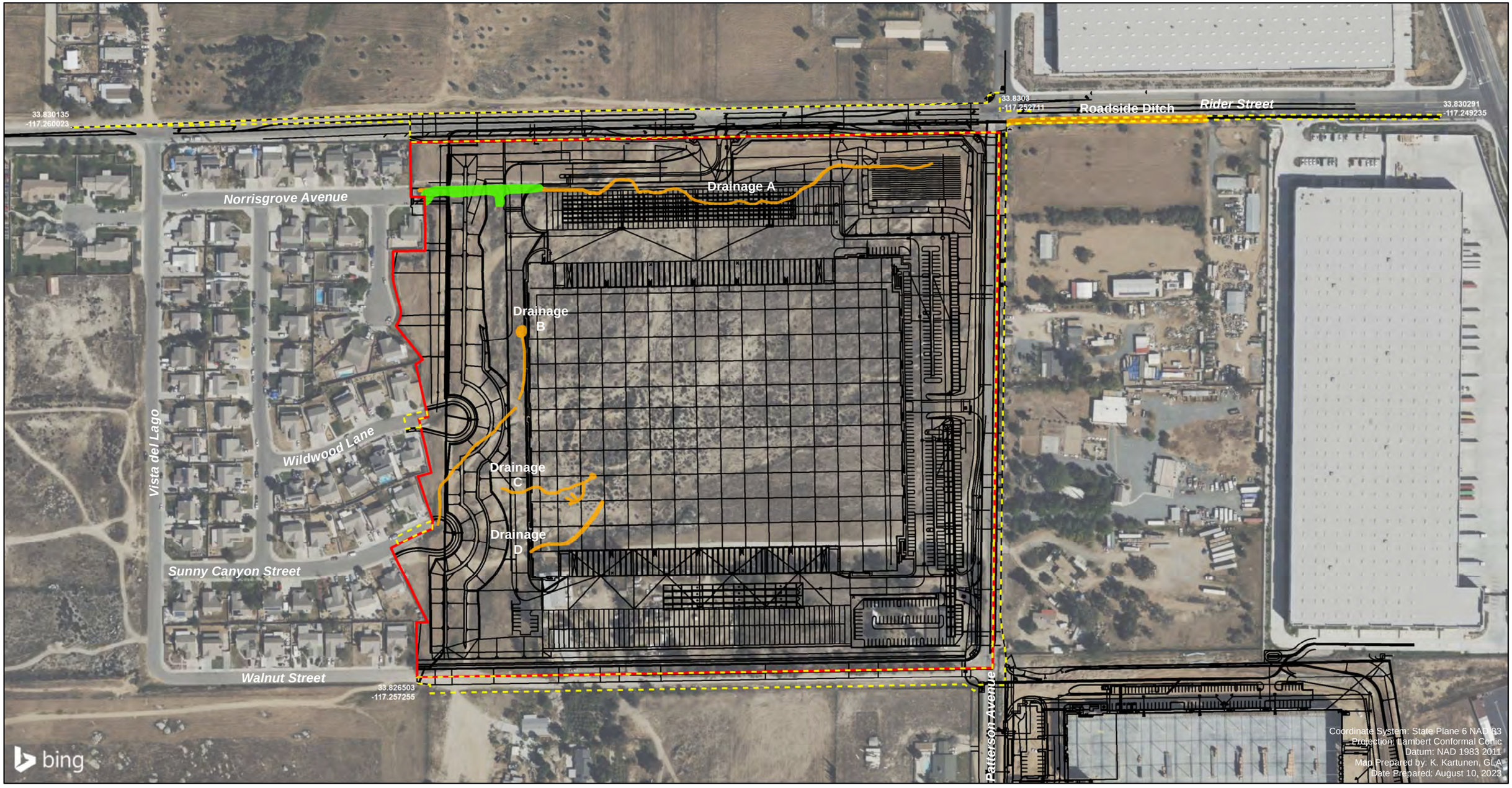
RIDER STREET & PATTERSON AVENUE PROJECT

RWQCB Jurisdictional Delineation/Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 9A

X:\0363-THE REST\0849-82RIPA\849-82_GIS\ImpactsGIS\849-82_RWQCB_Impacts.mxd



Project - Onsite

Project - Offsite

Project Site Plan

Riparian

Non-Riparian Stream

N

0 112.5 225 450

Feet

1 inch = 225 feet

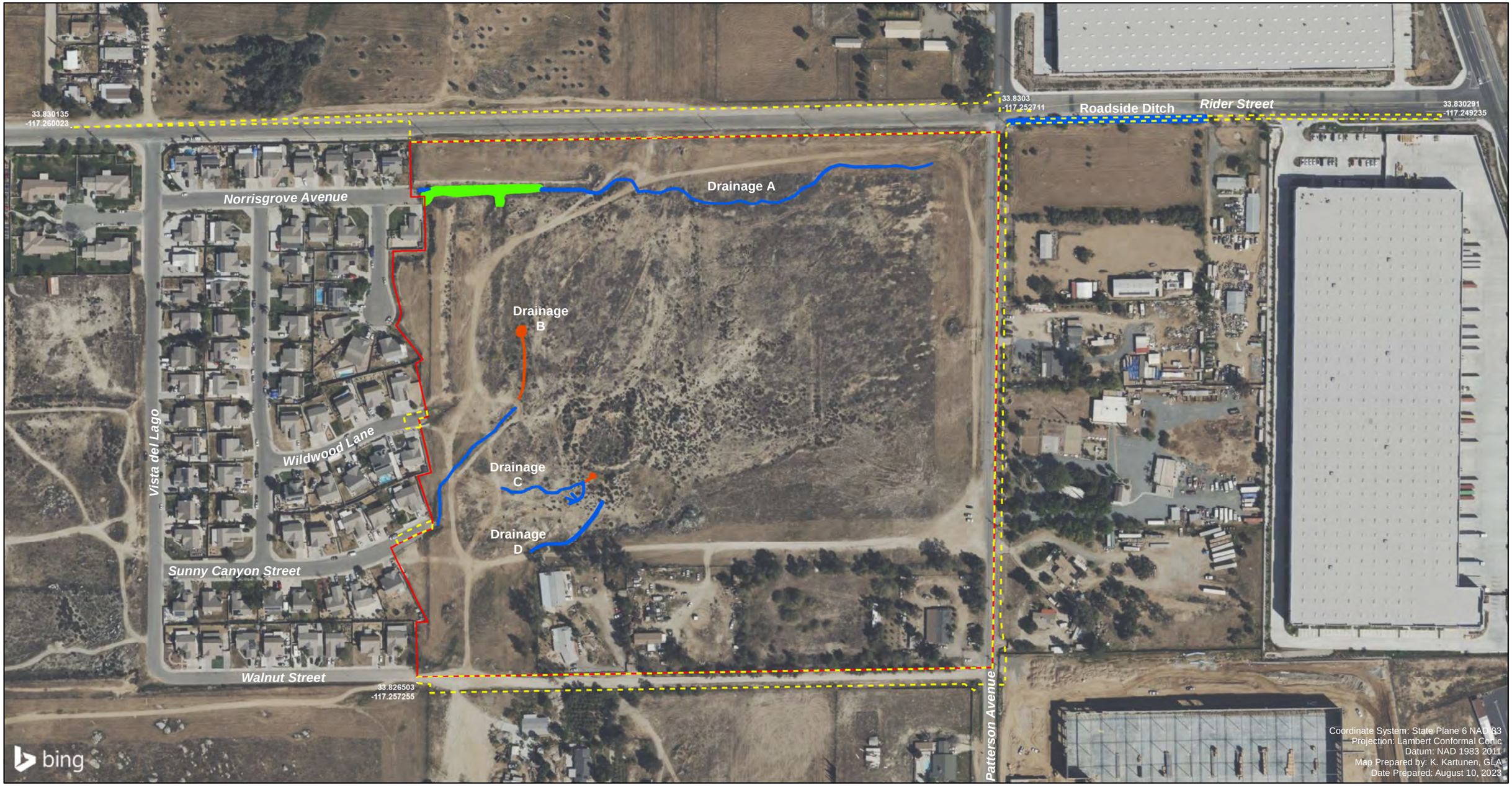
RIDER STREET & PATTERSON AVENUE PROJECT

CDFW Jurisdictional Delineation/Impact Map

GLENN LUKOS ASSOCIATES

Exhibit 9B

X:\0363-THE REST\0849-82RIPA\849-82_GIS\ImpactsGIS\849-82_CDFW_Impacts.mxd



Project - Onsite

Project - Offsite

MSHCP Riparian

Southern Willow Scrub

MSHCP Riverine

Disturbed Buckwheat Scrub

Ruderal/Disturbed

N

0 112.5 225 450

Feet

1 inch = 225 feet

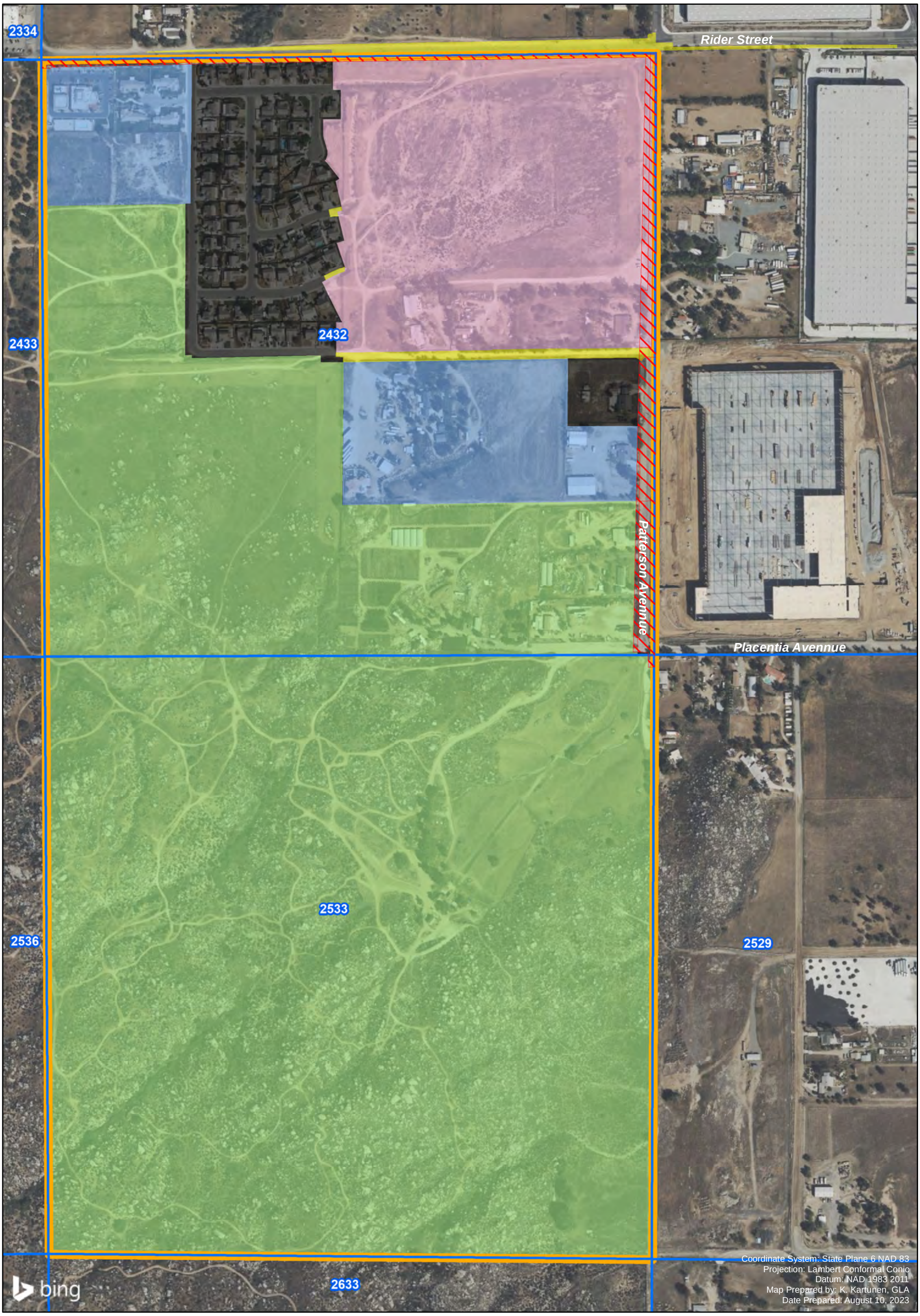
RIDER STREET & PATTERSON AVENUE PROJECT

MSHCP Riparian/Riverine Map

GLENN LUKOS ASSOCIATES

Exhibit 10

X:\0363-THE REST\0849-82RIPA\849-82_GIS\DelineationGIS\849-82_JD_MSHCP.mxd



Project - Onsite

Project - Offsite

Criteria Cell

Cell Group B

Covered Roads

Existing Development

Pending Development (Approved JPRs)

Undeveloped Lands Potentially Available for Conservation

N

0 200 400 800

Feet

1 inch = 400 feet

RIDER STREET & PATTERSON AVENUE PROJECT

MSHCP Reserve Analysis

GLENN LUKOS ASSOCIATES

Exhibit 11

X:\0363-THE REST\0849-82RIPA\849-82_GIS\MSHCPConservationGIS\849-82_MSHCPReserveAnalysis.mxd

APPENDIX A
FLORAL COMPENDIUM

The floral compendium lists all species identified during floristic level/focused plant surveys conducted for the Project site. Taxonomy follows Baldwin et al. (2021). Common plant names are taken from Baldwin et al. (2012), Munz (1974), 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 diandrus*	ripgut brome
* *Bromus madritensis* ssp. *rubens*	red brome
* *Hordeum murinum*	foxtail barley
* *Schismus barbatus*	common Mediterranean grass
EUDICOTYLEDONS	**EUDICOTS**
ADOXACEAE	**Elderberry Family**
Sambucus nigra ssp. *caerulea*	blue elderberry
AMARANTHACEAE	**Amaranth Family**
* *Salsola tragus*	Russian thistle
ANACARDIACEAE	**Sumac Family**
* *Schinus molle*	Peruvian pepper tree
ASTERACEAE	**Sunflower Family**
Ambrosia acanthicarpa	annual burrweed
Artemisia californica	California sage brush
Baccharis pilularis	coyote brush
Baccharis salicifolia	mulefat
Corethrogyne filaginifolia	common sandaster
Encelia farinosa	brittlebush
Helianthus annuus	hairy leaved sunflower
Heterotheca grandiflora	telegraph weed
Lasthenia californica	goldfields
Logfia filaginoides	California cottonrose
* *Oncosiphon piluliferum*	stinknet

BORAGINACEAE		**Borage Family**
	Amsinckia intermedia	common fiddleneck
	Pectocarya linearis	sagebrush combseed
	Plagiobothrys canescens	Valley popcorn
BRASSICACEAE		**Mustard Family**
*	*Hirschfeldia incana*	summer mustard
*	*Sisymbrium irio*	London rocket
CRASSULACEAE		**Stonecrop Family**
	Crassula connata	sand pygmy weed
EUPHORBIACEAE		**Spurge Family**
	Croton setiger	doveweed
*	*Ricinis communis*	castor bean
FABACEAE		**Legume Family**
*	*Parkinsonia aculeata*	Jerusalem thorn
GERANIACEAE		**Geranium Family**
*	*Erodium cicutarium*	coastal heron's bill
LAMIACEAE		**Mint Family**
	Trichostema lanceolatum	vinegarweed
MYRTACEAE		**Myrtle Family**
*	*Eucalyptus globulus*	blue gum
POLYGONACEAE		**Buckwheat Family**
	Eriogonum fasciculatum	California buckwheat
SALICACEAE		**Willow Family**
	Salix exigua	narrowleaf willow
	Salix gooddingii	Goodding's black willow
SOLANACEAE		**Nightshade Family**
*	*Nicotiana glauca*	tree tobacco

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; Stebbins (1985), Collins (1990), Jones et al. (1992), and CDFW (2016) for reptiles and amphibians; and CDFW (2016) for mammals.

REPTILIA

COLUBRIDAE
Coluber flagellum

PHRYNOSOMATIDAE
Uta stansburiana
Sceloporus occidentalis

REPTILES

Colubrid Snakes
coachwhip

Phrynosomatid Lizards
common side-blotched lizard
great basin fence lizard

AVES

ARDEIDAE
Ardea alba

ACCIPITRIDAE
Buteo jamaicensis

COLUMBIDAE
* *Streptopelia decaocto*
Zenaida macroura

TROCHILIDAE
Calypte anna
Calypte costae

TYRANNIDAE
Sayornis nigricans
Sayornis saya
Tyrannus verticalis

CORVIDAE
Corvus brachyrhynchos

BIRDS

Herons And Bitterns
great egret

Hawks And Old World Vultures
red-tailed hawk

Pigeons And doves
Eurasian collared-dove
mourning dove

Hummingbirds
Anna's hummingbird
Costa's hummingbird

Tyrant Flycatchers
black phoebe
Say's phoebe
western kingbird

Crows And Jays
American crow

HIRUNDINIDAE	**Swallows**
Hirundo rustica	barn swallow
AEGITHALIDAE	**Long-Tailed Tits and Bushtits**
Psaltriparus minimus	bushtit
TROGLODYTIDAE	**Wrens**
Troglodytes aedon	house wren
MIMIDAE	**Mockingbirds and Thrashers**
Mimus polyglottos	northern mockingbird
STURNIDAE	**Starlings**
* *Sturnus vulgaris*	European starling
PARULIDAE	**Wood Warblers and Relatives**
Setophaga coronata	yellow-rumped warbler
Setophaga petechia	yellow warbler
EMBERIZIDAE	**Emberizids**
Pipilo crissalis	California towhee
Zonotrichia leucophrys	white-crowned sparrow
ICTERIDAE	**Blackbirds**
Icterus cucullatus	hooded oriole
Sturnella neglecta	western meadowlark
FRINGILLIDAE	**Fringilline and Cardueline Finches and Allies**
Haemorhous mexicanus	house finch
Spinus psaltria	lesser goldfinch
PASSERIDAE	**Old World Sparrows**
* *Passer domesticus*	house sparrow
MAMMALIA	**MAMMALS**
LEPORIDAE	**Rabbits And Hares**
Sylvilagus audubonii	desert (Audubon's) cottontail
SCIURIDAE	**Squirrels, Chipmunks, And Marmots**
Otospermophilus beecheyi	California ground squirrel

GLENN LUKOS ASSOCIATES
Regulatory Services

December 9, 2022

Tracy Zinn
T&B Planning
3200 El Camino Real, Suite 100
Irvine, CA 92602

SUBJECT: Jurisdictional Delineation for the Rider Street and Patterson Avenue Project, Located in the Community of Mead Valley, Riverside County, California

Dear Ms. Zinn:

This letter report summarizes our preliminary findings of U.S. Army Corps of Engineers (Corps), Regional Water Quality Control Board (Regional Board), and California Department of Fish and Wildlife (CDFW) jurisdiction for the above-referenced property.[1]

The Rider Street and Patterson Avenue Project site, located in the community of Mead Valley in Riverside County [Exhibit 1], comprises approximately 45.45 acres and does not contain any blue-line drainages (as depicted on the U.S. Geological Survey (USGS) topographic map Steele Peak, California [Exhibit 2]. On May 5, September 14, and November 14, 2022, regulatory specialists of Glenn Lukos Associates, Inc. (GLA) examined the Project site to determine the limits of (1) Corps jurisdiction pursuant to Section 404 of the Clean Water Act, (2) Regional Board jurisdiction pursuant to Section 401 of the CWA and Section 13260 of the California Water Code (CWC), and (3) CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600 of the Fish and Game Code. Enclosed is a 150-scale map [Exhibit 3] that depicts the areas of potential Corps, Regional Board and CDFW jurisdiction. Photographs to document the topography, vegetative communities, and general widths of each of the waters are provided as Exhibit 4. A Soils Map is attached as Exhibit 5 and a wetland data sheet is included as Appendix A.

The Project site contains four ephemeral drainages, referred to herein as Drainages A through D, and a roadside ditch along Rider Street. Drainages within the Project site consist of ephemeral

[1] This report presents our best effort at estimating the subject jurisdictional boundaries using the most up-to-date regulations, written policy, and guidance from the regulatory agencies. Only the regulatory agencies can make a final determination of jurisdictional boundaries.

features that do not connect to further downstream traditional navigable waters. As such, drainages on site are isolated and not subject to Corps jurisdiction.

Potential Regional Board jurisdiction at the site totals approximately 0.14 acre, none of which consists of jurisdictional wetlands.

Potential CDFW jurisdiction at the site totals approximately 0.35 acre, of which approximately 0.13 acre consists of riparian habitat.

I. METHODOLOGY

Prior to beginning the field delineation, a color aerial photograph, a topographic base map of the property, the previously cited USGS topographic map, and a soils map were examined to determine the locations of potential areas of Corps, Regional Board, and CDFW jurisdiction. Suspected jurisdictional areas were field checked for evidence of stream activity and/or wetland vegetation, soils and hydrology. Where applicable, reference was made to the 2008 Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (OWHM Manual)[2] to identify the width of Corps jurisdiction, and suspected wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual[3] (Wetland Manual) and the 2006 Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement).[4] While in the field the potential limits of jurisdiction were recorded with a sub-meter Trimble GPS device in conjunction with a color aerial photograph using visible landmarks. Other data were recorded onto wetland data sheets.

The National Cooperative Soil Survey (NCSS) has mapped the following soil types as occurring in the general vicinity of the project site:

Fallbrook Rocky Sandy Loam, shallow, 8 to 15 Percent Slopes, Eroded

The Fallbrook series consists of deep, well drained soils that formed in material weathered from granitic rocks. These soils are on rolling hills.

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[2] U.S. Army Corps of Engineers. 2008. A Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States

[3] Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1, U.S. Army Engineer Waterways Experimental Station, Vicksburg, Mississippi.

[4] U.S. Army Corps of Engineers. 2008. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, and C. V. Noble. ERDC/EL TR-08-28. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

Hanford Coarse Sandy Loam, 2 to 8 Percent Slopes

The Hanford series consists of very deep, well drained soils that formed in moderately coarse textured alluvium dominantly from granite. Hanford soils are on stream bottoms, floodplains, and alluvial fans.

Ramona Sandy Loam, shallow, 2 to 5 Percent Slopes, Eroded

The Ramona series consist of well-drained, very deep sandy loams with a sandy clay loam subsoil formed from granitic alluvium. They are on terraces and alluvial fans.

Ramona Sandy Loam, shallow, 8 to 15 Percent Slopes, Severely Eroded

The Ramona series consist of well-drained, very deep sandy loams with a sandy clay loam subsoil formed from granitic alluvium. They are on terraces and alluvial fans.

II. JURISDICTION

A. 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) 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.*
>
> *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.*

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

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

- More than 50 percent of the dominant plant species at the site must be hydrophytic in nature as published in the most current national wetland plant list;

- 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.

2. 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.

3. 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 (RPWs) tributary to TNWs and/or their adjacent wetlands, as set forth 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.

B. 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[5] and waters of the State. Waters of the United States are defined above in Section II.A and waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

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

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

1. State Wetland Definition

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

[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.

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.

C. California Department of Fish and Wildlife

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

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

It is important to note that the Fish and Game Code defines fish and wildlife to include all wild animals, birds, plants, fish, amphibians, invertebrates, reptiles, and related ecological communities including the habitat upon which they depend for continued viability (FGC Division 5, Chapter 1, section 45 and Division 2, Chapter 1 section 711.2(a) respectively). Furthermore, Division 2, Chapter 5, Article 6, Section 1600 et seq. of the California Fish and

[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.

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.

III. RESULTS

A. Drainage Descriptions

Drainage A

Drainage A originates at the northwestern portion of the Project site where the adjacent residential development to the west, specifically Norrisgrove Drive, currently ends. Runoff from the development accumulates at the end of Norrisgrove Drive and flows onto the Project site. Drainage A is bisected by numerous dirt roads, flows in an easterly direction, and terminates at the northeastern corner of the Project site.

Vegetation associated with the upstream reach of Drainage A includes southern willow scrub, a riparian habitat that consists primarily of sandbar willow (*Salix exigua*). Other plant species in the riparian area include mulefat (*Baccharis salicifolia*) and black willow (*Salix gooddingii*). Upland vegetation associated with Drainage A consists primarily of California buckwheat (*Eriogonum fasciculatum*) with some brittlebush (*Encelia farinosa*) and California sagebrush (*Artemisia californica*).

Drainage B

Drainage B originates near the southwestern portion of the Project site where the adjacent residential development to the west, specifically Sunny Canyon Street, currently ends. Runoff from the development accumulates at the end of Sunny Canyon Street and flows onto the Project site. Drainage B is bisected by numerous dirt roads, flows in a northeasterly direction, and terminates at a shallow impoundment on site.

Vegetation associated with Drainage B consists of upland species, primarily California buckwheat (*Eriogonum fasciculatum*), summer mustard (*Hirschfeldia incana*), ripgut (*Bromus diandrus*), and stinknet (*Oncosiphon piluliferum*). Other species include red brome (*Bromus madritensis* ssp. *rubens*), common fiddleneck (*Amsinckia intermedia*) and coastal heron's bill (*Erodium cicutarium*).

Drainage C

Drainage C originates on site near the southwestern portion of the Project site and is generally associated with runoff from the adjacent dirt roads. It flows in a northeasterly direction and terminates at a shallow impoundment on site. Vegetation associated with Drainage C is upland and similar to the vegetation listed above for Drainage B.

Drainage D

Drainage D originates on site near the southwestern portion of the Project site and is generally associated with runoff from the adjacent dirt road. It flows in a northeasterly direction and terminates at a shallow impoundment on site. Vegetation associated with Drainage D is upland and similar to the vegetation listed above for Drainage B.

Roadside Ditch

The Roadside Ditch originates at the southeastern corner of Rider Street and Patterson Avenue, is associated with runoff from Rider Street, and flows in an easterly direction along the southern edge of Rider Street. Vegetation associated with the Roadside Ditch consists of non-native grasses with overhanging Peruvian pepper trees (*Schinus molle*).

B. Corps Jurisdiction

Drainages on site consist of ephemeral features that terminate on site and do not connect to any downstream jurisdictional waters. Drainages A and B originate on site directly as a result of runoff from the adjacent residential development. Drainages C and D also originate on site and are associated with runoff from adjacent dirt roads. As such, the drainage features within the Project site are isolated and would not be subject to Corps jurisdiction.

The Roadside Ditch along Rider Street would not be regulated by the Corps, as roadside ditches excavated wholly in and draining only uplands that do not carry a relatively permanent flow of water would not be subject to Corps jurisdiction.

C. Regional Water Quality Control Board Jurisdiction

Regional Board jurisdiction within the Project site totals approximately 0.14 acre (2,880 linear feet), none of which consists of State wetlands [Exhibit 3A – Regional Board Jurisdictional Delineation Map], as described in Table 1 below.

Drainage A supports an OHWM ranging in width from one to three feet and is evidenced by sediment sorting, sandy depositions, and a decrease in vegetation. Drainage B supports an OHWM of one foot and is evidenced by sandy depositions and sediment sorting. Drainage C supports an OHWM ranging in width from one to two feet and is evidenced by sediment sorting. Drainage D supports an OHWM ranging in width from two to three feet and is evidenced by natural lines impressed on the banks and sediment sorting. The Roadside Ditch supports an OHWM ranging in width from three to five feet and is evidenced by natural lines impressed on the banks, sediment sorting, gravelly depositions, and a lack of vegetation.

Drainages A through D as well as the Roadside Ditch are ephemeral features that would be regulated by the Regional Board as non-wetland waters of the State.

Table 1: Summary of Regional Board Jurisdiction

Drainage Name	Regional Board Non-Wetland Waters (acres)	Regional Board Jurisdictional Wetlands (acres)	Total Regional Board Jurisdiction (acres)	Length (linear feet)
Drainage A	0.05	0	0.05	1,302
Drainage B	0.02	0	0.02	529
Drainage C	0.01	0	0.01	353
Drainage D	0.01	0	0.01	221
Roadside Ditch	0.04	0	0.04	475
Total	**0.14**	**0**	**0.14**	**2,880**

D. CDFW Jurisdiction

CDFW jurisdiction within the Project site totals approximately 0.35 acre (2,880 linear feet), of which approximately 0.22 acre consists of non-riparian stream and approximately 0.13 acre consists of riparian habitat [Exhibit 3B – CDFW Jurisdictional Delineation Map], as described in Table 2 below.

Drainage A supports a bed and bank ranging in width from one to four feet. Drainage B supports a bed and bank of one foot. Drainage C supports a bed and bank ranging in width from one to

two feet. Drainage D supports a bed and bank ranging in width from two to seven feet. The Roadside Ditch supports a bed and bank ranging in width from eight to 15 feet.

Drainages A through D as well as the Roadside Ditch have the potential to support aquatic resources that would be regulated as streams and associated riparian habitat by the CDFW.

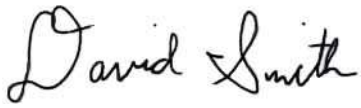
Table 2: Summary of CDFW Jurisdiction

Drainage Name	CDFW Non-riparian Stream (acres)	CDFW Riparian Habitat (acres)	Total Potential CDFW Jurisdiction (acres)	Length (linear feet)
Drainage A	0.04	0.13	0.17	1028
Drainage B	0.02	0	0.02	529
Drainage C	0.01	0	0.01	353
Drainage D	0.02	0	0.02	221
Roadside Ditch	0.13	0	0.13	475
Total	**0.22**	**0.13**	**0.35**	**2,880**

If you have any questions about this letter report, please contact David Smith at dsmith@wetlandpermitting.com or (949) 340-0256.

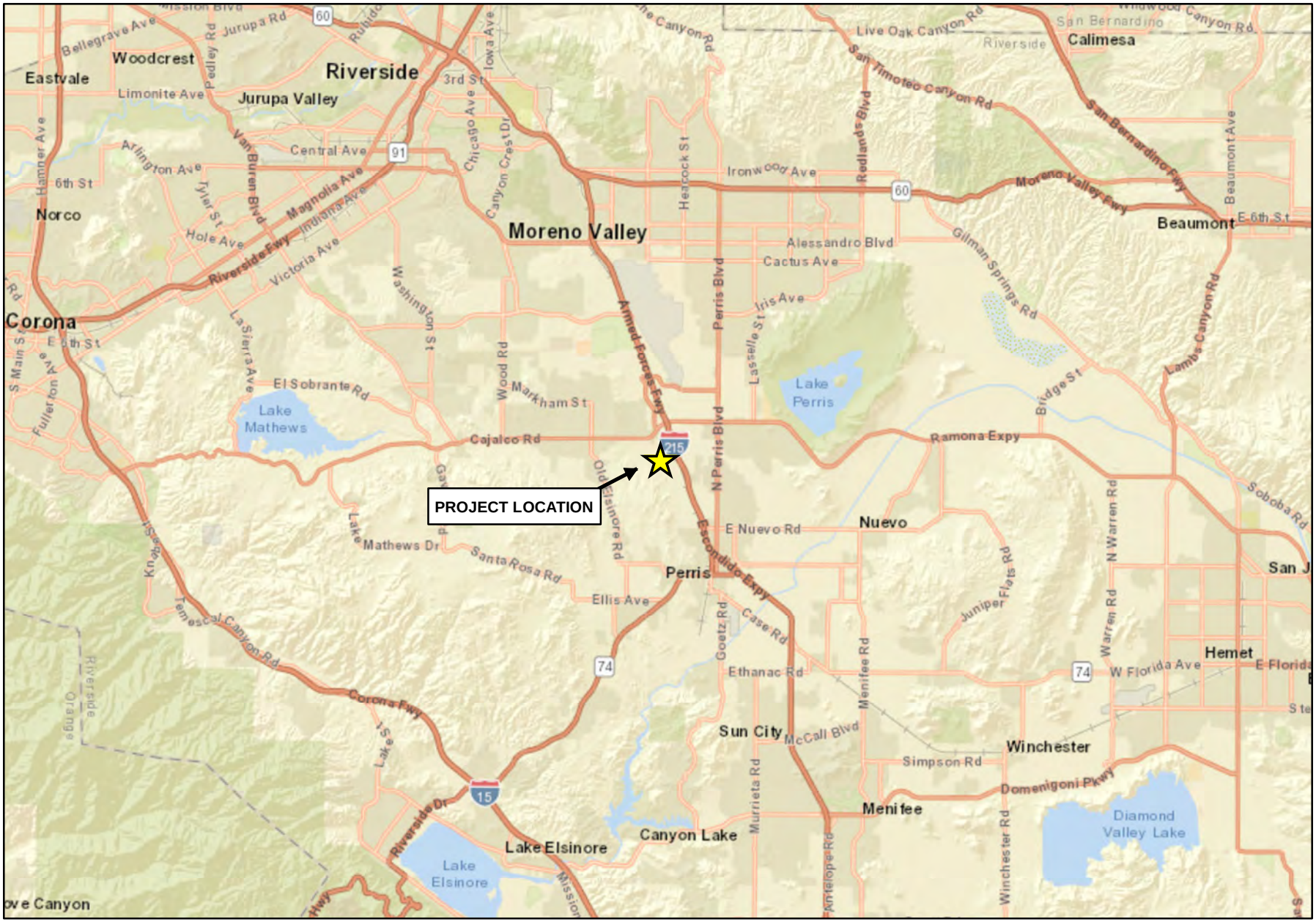
Sincerely,

GLENN LUKOS ASSOCIATES, INC.



David Smith
Wildlife Biologist

p:0849-82a.jd.rpt



Source: ESRI World Street Map

N

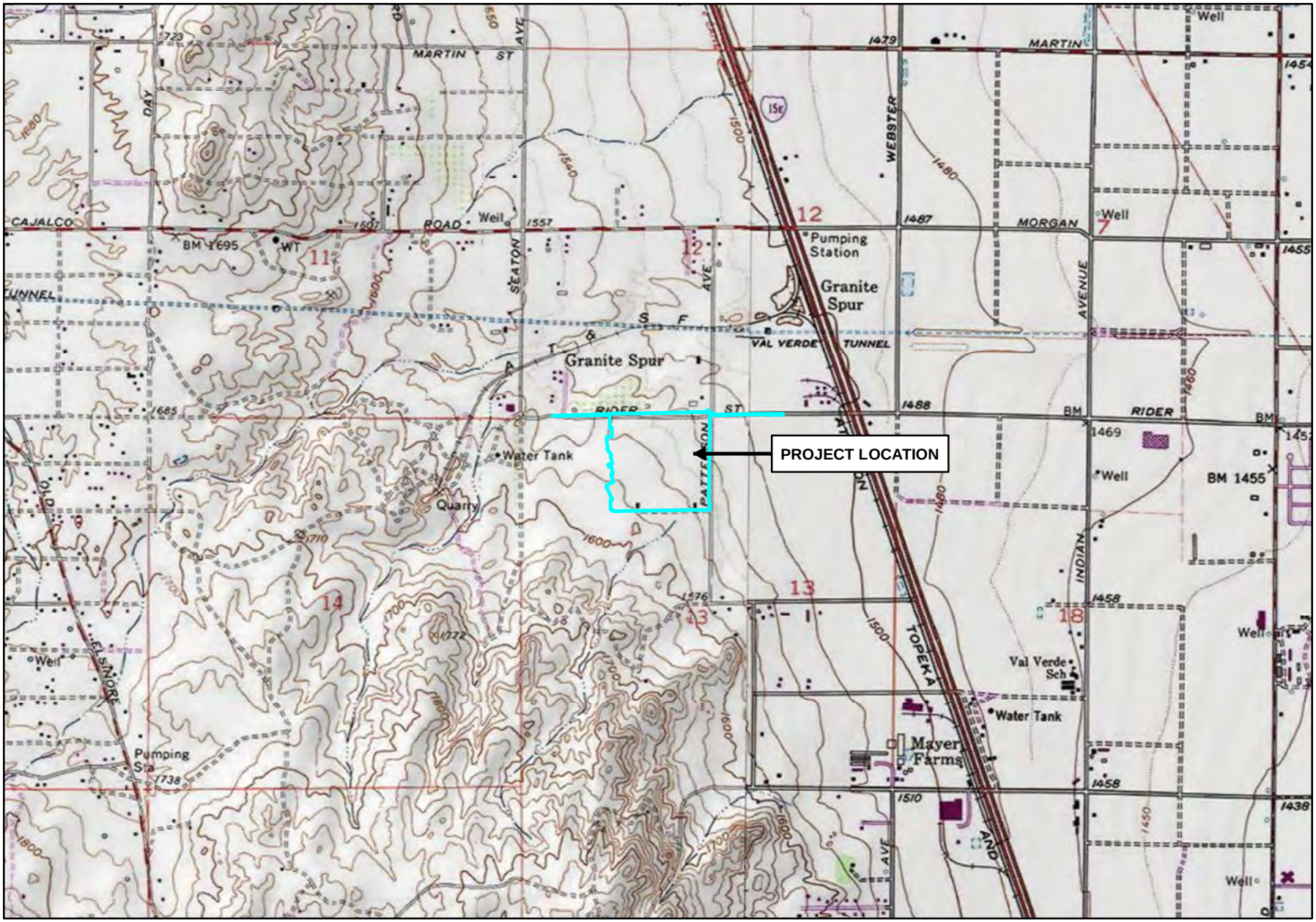
0 2 4 8 Miles

RIDER STREET & PATTERSON AVENUE PROJECT

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Steele Peak, CA quadrangle

N

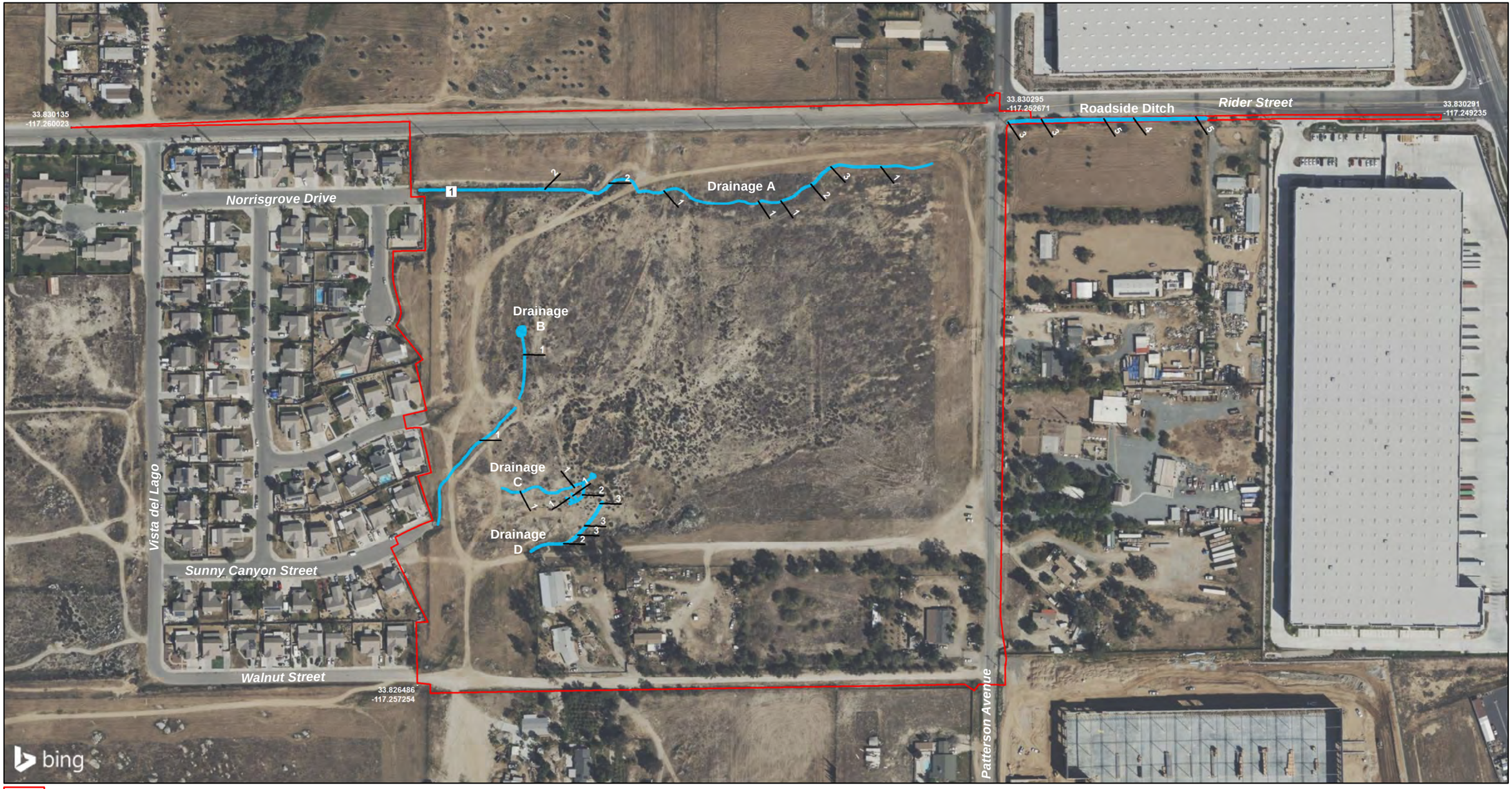
0 1,000 2,000 4,000 Feet

RIDER STREET & PATTERSON AVENUE PROJECT

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



Project Site

Non-Wetland Waters of the State

Width in Feet

Data Pit

N

0 112.5 225 450

Feet

1 inch = 225 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: December 8, 2022

RIDER STREET & PATTERSON AVENUE PROJECT

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3A

X:\0363-THE REST\0849-82RIPA\849-82_GIS\DelineationGIS\849-82_RWQCB.mxd

Project Site

Non-Riparian Stream

Riparian

Width of Non-Riparian in Feet

Data Pit

N

0 112.5 225 450

Feet

1 inch = 225 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: B. Gale, GLA
Date Prepared: December 8, 2022

RIDER STREET & PATTERSON AVENUE PROJECT

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 3B

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Photograph 1: Central view of Drainage A looking southwest.

Photograph 2: View depicting the northern portion of Drainage B, looking southwest.

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Site Photographs

Photograph 3: View depicting central portion of Drainage C, looking east.

Photograph 4: View depicting southern end of Drainage D, looking northeast.

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RIDER STREET & PATTERSON AVENUE PROJECT

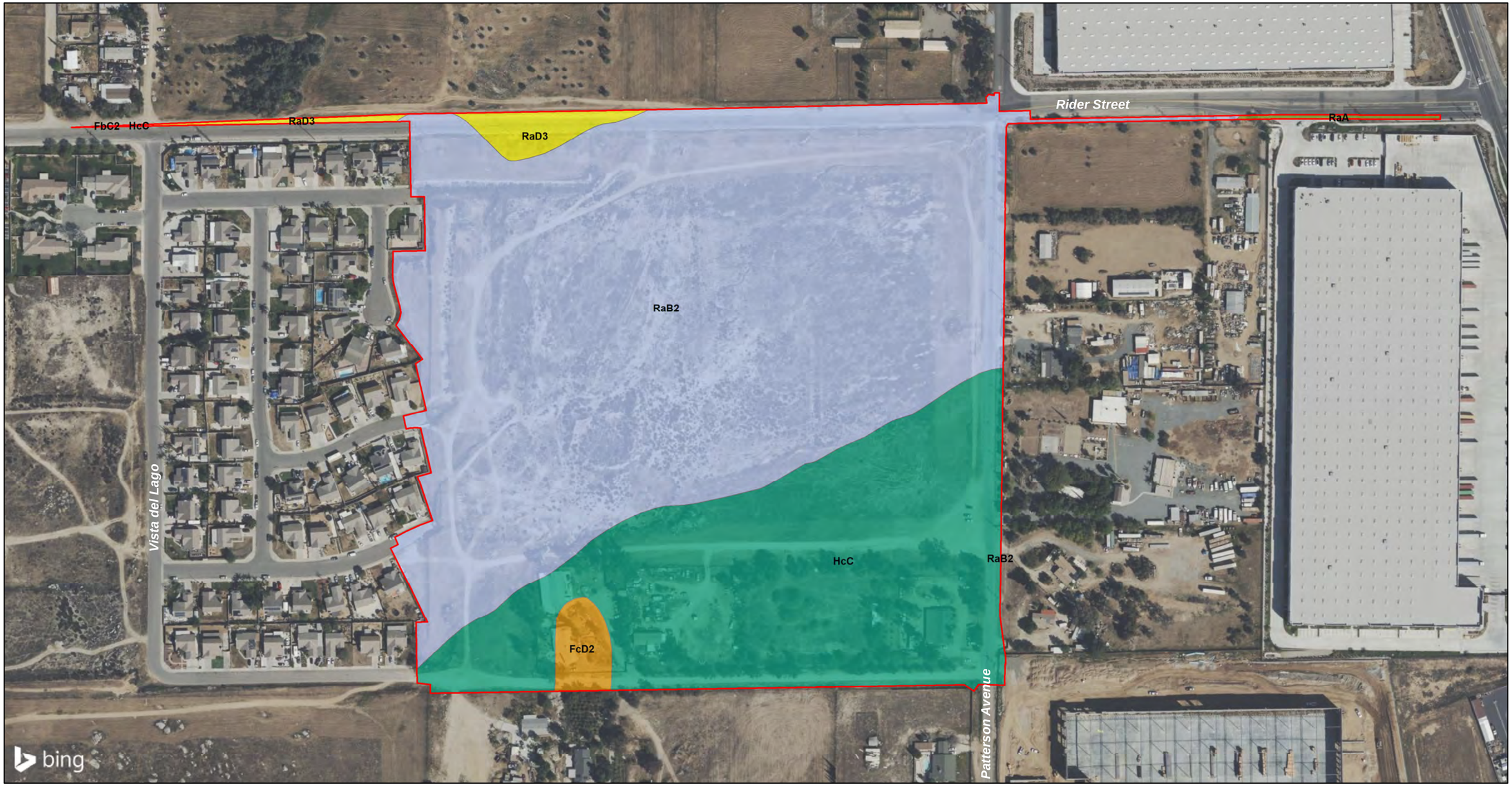
Site Photographs

Photograph 5: View depicting western terminus of roadside ditch, immediately south of Rider Street.

Photograph 6: View depicting eastern terminus of roadside ditch, immediately south of Rider Street.

RIDER STREET & PATTERSON AVENUE PROJECT

Site Photographs



- Project Site
- FbC2 - Fallbrook sandy loam, shallow, 5 to 8 percent slopes, eroded
- FcD2 - Fallbrook rocky sandy loam, shallow, 8 to 15 percent slopes, eroded
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- RaA - Ramona sandy loam, 0 to 2 percent slopes
- RaB2 - Ramona sandy loam, 2 to 5 percent slopes, eroded
- RaD3 - Ramona sandy loam, 8 to 15 percent slopes, severely eroded

N

0 112.5 225 450

Feet

1 inch = 225 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen, GLA
Date Prepared: December 6, 2022

RIDER STREET & PATTERSON AVENUE PROJECT

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 5

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WETLAND DETERMINATION DATA FORM – Arid West Region

Project/Site: Rider/Patterson City/County: Riverside Sampling Date: 9/14/22

Applicant/Owner: State: CA Sampling Point: 1

Investigator(s): D. Smith Section, Township, Range: 13, 4 S, 4 W

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

Subregion (LRR): Arid West Lat: 33.829738 Long: -117.257023 Datum:

Soil Map Unit Name: Ramona Sandy Loam, 2 to 5 percent slopes, eroded NWI classification: None

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

Are Vegetation ✔, Soil ✔, or Hydrology ✔ significantly disturbed? Are "Normal Circumstances" present? Yes ✔ No ☐

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes ☐	No ✔	**Is the Sampled Area within a Wetland?** Yes ☐ No ✔
Hydric Soil Present?	Yes ☐	No ✔	
Wetland Hydrology Present?	Yes ✔	No ☐	

Remarks:

Though hydrology is present, vegetation and soils don't meet.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30' radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Salix exigua	30	Y	FACW
2.			
3.			
4.			
	30	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15' radius)			
1. Salix exigua	70	Y	FACW
2. Baccharis salificolia	5	N	FAC
3.			
4.			
5.			
	75	= Total Cover	
Herb Stratum (Plot size: 5' radius)			
1. Bromus madritensis ssp. rubens	40	Y	UPL
2. Ambrosia acanthicarpa	40	Y	UPL
3. Trichostema lanceolatum	5	N	FACU
4. Heterotheca grandiflora	5	N	UPL
5. Eriogonum fasciculatum	5	N	UPL
6. Salix exigua	5	N	FACW
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size:)			
1.			
2.			
		= Total Cover	

% Bare Ground in Herb Stratum 0 % Cover of Biotic Crust

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species	x 1 =
FACW species 105	x 2 = 210
FAC species 5	x 3 = 15
FACU species 5	x 4 = 20
UPL species 90	x 5 = 450
Column Totals: 205 (A)	695 (B)

Prevalence Index = B/A = 3.39

Hydrophytic Vegetation Indicators:

☐ Dominance Test is >50%

☐ Prevalence Index is ≤3.0[1]

☐ Morphological Adaptations[1] (Provide supporting data in Remarks or on a separate sheet)

☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes ☐ No ✔

Remarks:

Lots of willow

SOIL

Sampling Point: 1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10 YR 3/2	100						no redox

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Stratified Layers (A5) (**LRR C**)
- ☐ 1 cm Muck (A9) (**LRR D**)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Mucky Mineral (S1)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Loamy Mucky Mineral (F1)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)
- ☐ Vernal Pools (F9)

Indicators for Problematic Hydric Soils[3]:

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

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

Type: Hardpacked Earth

Depth (inches): 12

Hydric Soil Present? Yes ☐ No ✔

Remarks:

Refusal after 12.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1) (**Nonriverine**)
- ☐ Sediment Deposits (B2) (**Nonriverine**)
- ☐ Drift Deposits (B3) (**Nonriverine**)
- ✔ Surface Soil Cracks (B6)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Salt Crust (B11)
- ☐ Biotic Crust (B12)
- ☐ Aquatic Invertebrates (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres along Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Other (Explain in Remarks)

Secondary Indicators (2 or more required)

- ☐ Water Marks (B1) (**Riverine**)
- ☐ Sediment Deposits (B2) (**Riverine**)
- ☐ Drift Deposits (B3) (**Riverine**)
- ✔ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Crayfish Burrows (C8)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes ☐ No ✔ Depth (inches): _____

Water Table Present? Yes ☐ No ✔ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes ☐ No ✔ Depth (inches): _____

Wetland Hydrology Present? Yes ✔ No ☐

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

Remarks:

Surface soil cracks show evidence of potential ponding.