BIOLOGICAL TECHNICAL REPORT

FOR

IDI INDIAN AVENUE AND RAMONA EXPRESSWAY WAREHOUSE PROJECT

LOCATED IN THE CITY OF PERRIS, RIVERSIDE COUNTY, CALIFORNIA

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August 2018
[Revised February 2019]

INFORMATION SUMMARY

A. Report Date: **August 2018 [Revised February 2019]**

B. Report Title: Biological Technical Report for the IDI Indian Avenue and Ramona Expressway Warehouse Project Located in the City of Perris, Riverside County, California.

C. Project Site Location: USGS 7.5' series Perris Quadrangle, City of Perris, Riverside County, Township 4 South, Range 3 West, Sections 6 and 7, south of Perry Street, north of Ramona Expressway, east of existing industrial/commercial buildings, and west of Indian Avenue.

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F. Report Summary:

A biological study was performed for the proposed IDI Indian Avenue and Ramona Expressway Warehouse Project (Project) located in the City of Perris, Riverside County, California. The Project applicant would construct an industrial warehouse on approximately 24.20 acres of land, construct an off-site driveway improvement area on approximately 0.77 acre of land, and provide roadway improvements to Indian Avenue and Perry Street on approximately 1.87 acres of land. In total, the Study Area is 26.84 acres. This document provides the results of field studies performed to evaluate the potential occurrence of biological resources and the requirements triggered by environmental laws and regulations. The site occurs within the Mead Valley Area Plan of the Western Riverside County Multiple-Species Habitat Conservation Plan (MSHCP), but outside of criteria cells and survey areas for criteria area plants, narrow endemic plant, mammals, and amphibians, as well as outside of core and linkage areas.

The Study Area is located in the Burrowing Owl Survey Area. Habitat assessments were performed for special-status plants and animals, and to determine the presence/absence of federal and/or state jurisdictional waters and wetlands, including MSHCP riparian/riverine areas and vernal pools. The Study Area does not support potential habitat for riparian birds or fairy shrimp and lacks federal jurisdictional waters. The Study Area includes state jurisdictional waters but no MSHCP riverine/riparian habitats as the sole feature present is a concrete-sided, concrete-bottomed roadside ditch collecting road runoff from Ramona Expressway, which was artificially created. No vernal pools are present on site. A focused survey for burrowing owl was performed and the species was determined to be absent from the Study Area. There is no proposed or designated Critical Habitat present.

G. Individuals Conducting Fieldwork:

Martin Rasnick, GLA
Zack West, GLA
Lesley Lokovic, GLA
Trina Ming, GLA

TABLES

EXHIBITS

APPENDICES

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 24.2-acre IDI Indian Avenue and Ramona Expressway Warehouse Project (Project), the 0.77-acre off site driveway improvement area, and roadway improvements to approximately 1.87 acres of Perry Street and/or Indian Avenue located in the City of Perris, Riverside County, California. Collectively, the area described in this report will be further discussed as the Study Area. This report identifies and evaluates impacts to biological resources associated with the Study Area 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 federal and state 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 approximate 26.84-acre Study Area, 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 requirements, including (1) a general reconnaissance survey and vegetation mapping; (2) general biological surveys; (3) habitat assessments for special-status wildlife species (including species with applicable MSHCP survey requirements); (4) assessments for MSHCP riparian/riverine areas and vernal pools; and (5) assessments for areas subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) jurisdiction pursuant to Section 404 of the CWA, the Santa Ana Regional Water Quality Control Board (Regional Board) pursuant to Section 401 of the CWA and Section 13260 of the California Water Code (CWC), and the California Department of Fish and Wildlife (CDFW) jurisdiction pursuant to Division 2, Chapter 6, Sections 1600-1617 of the State of California Fish and Game Code. Observations of all plant and wildlife species were recorded during the general biological surveys and are included as Appendix A: Floral Compendium and Appendix B: Faunal Compendium.

1.2 Project Location

The Study Area is located in the City of Perris, Riverside County, California [Exhibit 1]. The Study Area is centrally located at latitude 33.846071 and longitude -117.232875. The Study Area is within Section 6 of Township 4 South and Range 3 West. The Study Area is generally bounded by West Perry Street to the north, Ramona Expressway to the south, Indian Avenue to the east, and industrial buildings to the west [as depicted on the U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map Perris, California (dated 1967, photorevised 1979)].

The Project site is contained within Assessor's Parcel Numbers (APN) 302-050-034, 302-050-036, 302-060-005, 302-060-006, and 302-060-038 and the off site improvement areas are within APN 302-060-002.

1.3 Project Description

The proposed Project involves the construction and operation of an approximately 428,730 square feet (sf) building of industrial high-cube, non-refrigerated warehouse/distribution uses on the approximately 24.2-acre site. The off-site improvement areas include a driveway access that connects to the Project site with the intersection of Indian Avenue and Perry Street on approximately 0.77 acre of land. Off site improvements are also proposed on 1.87 acres of land along Indian Avenue and Perry Street, which include traffic signals and a revised alignment to Perry Street west of Indian Avenue (which would connect to the driveway access). The Study Area is generally proposed on the portion of the Project site bounded by Ramona Expressway to the south, Indian Avenue to the east, and Perry Street to the north.

The proposed Project and off-site driveway improvement area has been designed to be in compliance with the applicable Standards and Guidelines outlined in the Perris Valley Commerce Center Specific Plan, including but not limited to landscape, parkway, setback, lot coverage, Floor Area Ratio (FAR), architectural requirements, and light and glare requirements. Landscaping, walls, and fences would be provided on site as required for screening, privacy, and security. The proposed Project will also comply with the PVCCSP employee amenities guidelines by providing employee break areas, as required. The proposed Project will comply with all requirements under Compatibility B1, APZ 1, and APZ II of the 2014 MARB/Inland Port Airport Land Use Compatibility Plan (ALUCP), which limits the number of occupants who can be in the Project at any given time.

The proposed Project will involve connecting the two reaches of the existing Line E storm drain that exist on both sides of the Project, along Ramona Expressway. Reinforced concrete boxes (RCBs) will connect the existing channel to the west of the site to the existing RCB to the east of the site. Line E will convey off-site flows. On-site flows will be conveyed into the proposed water quality basin located north of the site via a newly-constructed, private storm drain (see Exhibit 3, Site Plan). All runoff generated by the site will drain to the water quality basin and convey outflow into a proposed pump station. The pump station will drain into Lateral E-3.2 to collect local street flow. Lateral E-3.2 will convey flow to existing Line E-3 (along Indian Avenue), and then to Line E.

The Project will provide approximately 218 standard auto parking spaces, approximately seven handicap auto parking spaces, and approximately 239 trailer parking stalls on site.

Construction of the proposed Study Area would involve mass grading of the Study Area with approximately 108,000 cubic yards of cut, approximately 140,200 cubic yards of fill, and 22,200 cubic yards of shrinkage, which would require approximately 10,000 cubic yards of soil import. Construction is expected to be initiated in 2019 and completed in 2020. The proposed industrial use is consistent with the land use designation of the PVCCSP; no General Plan Amendment, Specific Plan amendment, or zone change is required.

1.4 Relationship of the Project Site and Off-Site Improvement Area to the MSHCP

1.4.1 MSHCP Background

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

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

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

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

1.4.2 Relationship of the Study Area to the MSHCP

The Study Area is located within the Mead Valley Area Plan of the MSHCP. The Study Area is not within a MSHCP Criteria Cell, MSHCP Conservation Area, MSHCP NEPSSA or CAPSSA Survey Area, MSHCP Core or Linkage Area, or MSHCP Mammal or Amphibian Survey Areas, nor does it support or is it located adjacent to PQP lands; however, the Study Area is adjacent to a NEPSSA and CAPSSA survey area northeast of the intersection of Perry Street and Indian Avenue The Study Area is located within the MSHCP Burrowing Owl Survey Area [Exhibit 4 – MSHCP Overlay Map].

Within the designated MSHCP 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

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

- Performance of vegetation mapping for the Study Area; and
- Performance of site-specific habitat assessments and biological surveys to evaluate the potential presence/absence of special-status species (or potentially suitable habitat) to the satisfaction of CEQA, federal and state regulations, and MSHCP requirements.

The focus of the biological surveys was determined through initial site reconnaissance, a review of the CNDDB [CDFW July and August 2018], CNPS 8th edition online inventory (CNPS July 2018), Natural Resource Conservation Service (NRCS) soil data, and other pertinent literature and knowledge of the region. Site-specific general surveys within the Study Area were conducted on foot in the proposed development areas for each target plant or animal species identified below.

Vegetation was mapped directly onto a 200-scale (1"=200') aerial photograph. All flora and fauna identified on site during vegetation mapping were recorded and are provided in Appendices A and B.

2.1 Summary of Surveys

GLA conducted biological studies in order to identify and analyze actual or potential impacts to biological resources associated with development of the Study Area. Observations of all plant

and wildlife species were recorded during each of the above-mentioned survey efforts [Appendix A: Floral Compendium and Appendix B: Faunal Compendium]. Table 2-1 provides a summary list of survey dates, survey types and personnel.

Table 2-1. Summary of Biological Surveys for the Project and Off-Site Improvement Area

Survey Type	2018 Survey Dates	Biologist(s)
General Biological Survey	06/26/18 and 07/18/18	ZW, MR
Evaluation of Riparian/Riverine Areas	06/26/18 and 07/18/18	MR, ZW
Evaluation of Vernal and/or Seasonal Pools	06/26/18	MR, ZW
Federal and State Jurisdictional Waters	06/26/18	MR, ZW
Focused Burrowing Owl Surveys	07/18/18, 08/08/18, 08/10/18, and 08/11/18	MR, LL, TM

ZW=Zack West; MR=Martin Rasnick; TM=Trina Ming; LL=Lesley Lokovic

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);
- Occurrence in the CNPS Rare Plant Inventory (Rank 1A/1B, 2A/2B, 3, or 4); and/or
- Occurrence in the CNDDB inventory.

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

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

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

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

2.2 Botanical Resources

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

2.2.1 Literature Search

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

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

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

- Informational Planning and Consultation (IPaC) Program. 2018. IPac Resource List. (USFWS 2018)

2.2.2 Vegetation Mapping

Vegetation communities within the Study Area were mapped according to Holland (1986) when possible. Plant communities were mapped in the field directly onto a 200-scale (1"=200') aerial photograph. A vegetation map is included as [Exhibit 5 – Vegetation Map]. Representative site photographs are included as [Exhibit 8 – Site Photographs].

2.2.3 Special-Status Plant Species and Habitats Evaluated for the Project and Off-Site Improvement Area

A literature search was conducted to obtain a list of special status plants with the potential to occur within the Study Area. The CNDDB was initially consulted to determine well-known occurrences of plants and habitats of special concern in the region. Other sources used to develop a list of target species for the survey program included the CNPS online inventory (2018) and the MSHCP Report Generator (2018).

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

For the MSHCP, the Study Area is not located within the MSHCP NEPSSA or CAPSSA. As such, focused plant surveys are not required pursuant to the MSHCP.

2.2.4 Botanical Surveys

GLA biologists/regulatory specialists Zack West and Martin Rasnick visited the study area on June 26, 2018 to conduct habitat evaluations for special status plants. The assessment was

conducted in accordance with accepted botanical survey guidelines (CDFG 2009, CNPS 2001, USFWS 2000). An aerial photograph, a soil map, and/or a topographic map were used to determine the community types and other physical features that may support sensitive and uncommon taxa or communities within the Study Area. The habitat assessment was conducted by walking meandering transects within target areas of suitable habitat. All plant species encountered during the field survey were identified and recorded following the above-referenced guidelines adopted by CNPS (2010) and CDFW by Nelson (1984). A complete list of the plant species observed is provided in Appendix A. Scientific nomenclature and common names used in this report follow Baldwin et al (2012), and Munz (1974).

2.3 Wildlife Resources

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

2.3.1 General Surveys

Birds

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

Mammals

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

Reptiles and Amphibians

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

2.3.2 Special-Status Animal Species Evaluated for the Project and Off-Site Improvement Area

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

Habitat Assessment for Special Status Animal Species

GLA biologists Zack West and Martin Rasnick conducted habitat assessments for special-status animal species on June 26, 2018 and July 18, 2018. An aerial photograph, soil map, and/or topographic map were used to determine the community types and other physical features that may support special-status and uncommon taxa within the Project site or off-site driveway improvement area.

Focused Surveys for Special-Status Animals Species

Portions of the Study Area are located within the MSHCP survey area for the burrowing owl (*Athene cunicularia*). GLA biologists Zack West, Trina Ming, Lesley Lokovic, and Martin Rasnick conducted focused surveys for the burrowing owl in all suitable habitat within the Study Area. Surveys were conducted in accordance with survey guidelines described in the 2006 MSHCP Burrowing Owl Survey Instructions. The guidelines stipulate that four focused survey visits be conducted on separate dates between March 1 and August 31. Within areas of suitable habitat, the MSHCP first requires a focused burrow survey to map all potentially suitable burrows. The focused burrow survey was conducted on June 26, 2018. Focused burrowing owl surveys were conducted on July 18, 2018 and August 8, 10, and 11, 2018. The burrowing owl survey visits need to be conducted from one hour prior to sunrise to two hours after sunrise or two hours before sunset to one hour after sunset.

Both the burrow and owl surveys were conducted during weather that was conducive to observing owls outside their burrows and detecting burrowing owl sign and not during rain, high winds (> 20 mph), dense fog, or temperatures over 90 °F. 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, which included the entire Project site, with the exception of a concrete roadside ditch, and visual observation of a 500-foot buffer zone within the off site improvement areas [Exhibit 5 – Vegetation Map]. Transects were spaced between 22 feet and 65 feet apart, adjusting for vegetation height and density, in order to provide adequate visual coverage of the survey areas. At the start of each transect, and at least every 320 feet along transects, the survey area was scanned for burrowing owls using binoculars. All suitable burrows were inspected for diagnostic

owl sign (e.g., pellets, prey remains, whitewash, feathers, bones, and/or decoration) in order to identify potentially occupied burrows. 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
07/18/2018	MR	0610/0730	77-85	1-3	Clear
08/08/2018	TM	0615/0730	70-76	0-4	Partly Cloudy
08/10/2018	MR/LL	0600/0730	70-77	1-2	Clear
08/11/2018	TM	0630/0730	68-72	0-1	Clear

ZW=Zack West; MR=Martin Rasnick; LL=Lesley Lokovic; TM=Trina Ming

2.4 Jurisdictional Delineation

Prior to beginning the field delineation, a 200-scale color aerial photograph and the previously cited USGS topographic maps were examined to determine the locations of potential areas of Corps/Regional Board/CDFW jurisdiction. Suspected jurisdictional areas were field checked for the presence of definable channels and/or wetland vegetation, soils and hydrology. Potential wetland habitats at the subject study area 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.

2.5 MSHCP Riparian/Riverine Areas and Vernal Pools

GLA surveyed the Study Area for riparian/riverine areas and vernal pool/seasonal pool habitat.

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[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.

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

The MSHCP defines riparian/riverine areas as *lands which contain Habitat dominated by trees, shrubs, persistent emergent mosses and lichens, which occur close to or which depend upon soils moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.*

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

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

3.0 REGULATORY SETTING

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

3.1 Endangered Species Acts

3.1.1 California Endangered Species Act

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

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

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

3.1.2 Federal Endangered Species Act

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

3.1.3 State and Federal Take Authorizations

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

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).

- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCP) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.

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

3.1.4 Take Authorizations Pursuant to the MSHCP

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

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

For projects that have a federal nexus such as through federal CWA Section 404 permitting, take authorization for federally listed covered species would occur under Section 7 (not Section 10) of FESA and that USFWS would provide a MSHCP consistency review of the proposed project,

resulting in a biological opinion. The biological opinion would require no more compensation than what is required to be consistent with the MSHCP.

3.2 California Environmental Quality Act

3.2.1 CEQA Guidelines Section 15380

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

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

Federally Designated Special-Status Species

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

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

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

State-Designated Special-Status Species

Some mammals and birds are protected by the state as Fully Protected (SFP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511,

respectively. California SSC are designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's CNDDB project. Informally listed taxa are not protected but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

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

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

California Native Plant Society

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

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

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

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

3.3 Jurisdictional Waters

3.3.1 Army Corps of Engineers

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

> *(1) All waters which are currently used, 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 shell fish are or could be taken and sold in interstate or foreign commerce; or*

[5] On October 9, 2015, the U.S. 6th District Circuit Court of Appeals ordered a nationwide stay on the Corps and EPA's definition of waters of the United States under the Clean Water Rule ("Clean Water Rule: Definition of 'Waters of the United States"; Final Rule," 80 Federal Register 124 (29 June, 2015), pp. 37054-37127). As a result, the Corps' regulations that were in effect prior to the August 28, 2015 Clean Water Rule is again in effect until such a time as the Court order is satisfied, if this occurs. In addition, President Trump signed an Executive Order on February 28, 2017 that instructs the EPA and Corps to formally reconsider the Rule, which could lead to a re-write of the law or a complete repeal.

(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.[6] *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 CWA.

[6] The term "prior converted cropland" is defined in the Corps' Regulatory Guidance Letter 90-7 (dated September 26, 1990) as "wetlands which were both manipulated (drained or otherwise physically altered to remove excess water from the land) and cropped before 23 December 1985, to the extent that they no longer exhibit important wetland values. Specifically, prior converted cropland is inundated for no more than 14 consecutive days during the growing season…." [Emphasis added.]

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 CWA (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 CWA 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 project 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 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 agencies 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 agencies will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a traditional navigable water:

- 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 a manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the 1987 Wetland Delineation Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the manual and Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- more than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the Arid West 2016 Regional Wetland Plant List[78]);

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

- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative

[7] 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.

[8] 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.

criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

3.3.2 Regional Water Quality Control Board

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

Subsequent to the SWANCC decision, the Chief Counsel for the State Water Resources Control Board issued a memorandum that addressed the effects of the SWANCC decision on the Section 401 Water Quality Certification Program.[9] The memorandum states:

> *California's right and duty to evaluate certification requests under section 401 is pendant to (or dependent upon) a valid application for a section 404 permit from the Corps, or another application for a federal license or permit. Thus, if the Corps determines that the water body in question is not subject to regulation under the COE's 404 program, for instance, no application for 401 certification will be required…*
>
> *The SWANCC decision does not affect the Porter Cologne authorities to regulate discharges to isolated, non-navigable waters of the states….*
>
> *Water Code section 13260 requires "any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state to file a report of discharge (an application for waste discharge requirements)." (Water Code § 13260(a)(1) (emphasis added).) The term "waters of the state" is defined as "any surface water or groundwater, including saline waters, within the boundaries of the state." (Water Code § 13050(e).) The U.S. Supreme Court's ruling in SWANCC has no bearing on the Porter-Cologne definition. While all waters of the United States that are within the borders of California are also waters of the state, the converse is not true—waters of the United States is a subset of waters of the state. Thus, since Porter-Cologne was enacted California always had and retains authority to regulate discharges of waste into any waters of the state, regardless of whether the COE has concurrent jurisdiction under section 404. The fact that often Regional Boards opted to regulate discharges to, e.g., vernal pools, through the 401 program in lieu of or in addition to issuing waste discharge requirements (or waivers thereof) does not preclude the regions from issuing WDRs (or waivers of WDRs) in the absence of a request for 401 certification….*

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

In this memorandum the SWRCB's Chief Counsel has made the clear assumption that fill material to be discharged into isolated waters of the United States is to be considered equivalent to "waste" and therefore subject to the authority of the Porter Cologne Water Quality Act.[10]

3.3.3 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1617 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

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

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

4.0 RESULTS

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

4.1 Existing Conditions

The Project site consists of a disturbed, partially tilled field and an existing concrete-lined concrete-bottomed, roadside ditch constructed in the uplands along with an existing dirt access road next to the ditch. Topography within the Study Area is generally flat, with elevations ranging from 1,457 to 1,467 feet above mean sea level (amsl) gently sloping from northwest to east/southeast.

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

The Natural Resource Conservation Service (NRCS) identifies the following soil types (series) as occurring (currently or historically) within the Study Area [Exhibit 7 – Soils Map]: Exeter Sandy Loam, Deep, 0 to 2 Percent Slopes (EpA) and Pachappa Fine Sandy Loam, 0 to 2 Percent Slopes (PaA).

4.2 Vegetation Mapping

The Study Area supports Ruderal/Disturbed/Developed vegetation. Table 4-1 provides a summary of the vegetation types and their corresponding acreage. Descriptions of each vegetation type follow the table. A Vegetation Map is attached as Exhibit 5. Photographs depicting the Study Area are shown in Exhibit 8.

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

Vegetation Type	Area of Study Area (acres)
Ruderal/Disturbed/Developed	26.84
Total	**26.84**

4.2.1 Ruderal/Disturbed/Developed

The Study Area supports 26.84 acres of ruderal/disturbed/developed lands [Exhibit 5]. These areas consist of both paved and dirt vehicular access roads and an existing concrete-lined roadside ditch. Vegetation within the Study Area consists of stinknet (*Oncosiphon piluliferum*), small-flowered fiddleneck (*Amsinckia menziesii*), Russian thistle (*Salsola tragus*), western sunflower (*Helianthus annuus*), foxtail brome (*Bromus madritensis*), ripgut brome (*Bromus diandrus*), short-pod mustard (*Hirschfeldia incana*), jimson weed (*Datura stramonium*), horseweed (*Erigeron canadensis*), London rocket (*Sisymbrium irio*), tree tobacco (*Nicotiana glauca*), and annual bursage (*Ambrosia acanthicarpa*).

4.3 Special-Status Vegetation Communities

The CNDDB identifies the following four special-status vegetation communities for the El Casco, Lake Elsinore, Lakeview, Perris, Riverside East, Romoland, Steele Peak, Sunnymead, and Winchester quadrangle maps: southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern sycamore alder riparian woodland, and southern riparian scrub. The Study Area do not contain any of these special-status vegetation types, nor other sensitive vegetation types.

4.4 Special-Status Plants

Table 4-2 provides a list of special-status plants evaluated for the Project area and off-site driveway improvement area through general biological surveys and habitat assessments. Species were evaluated based on the following factors: 1) species identified by the CNDDB and CNPS as occurring (either currently or historically) on or in the vicinity of the Project or off-site driveway improvement area, 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 off-site driveway improvement area, or for which potentially suitable habitat occurs within the study area.

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

Status

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

State
SE – State Endangered
ST – State Threatened

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

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

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

Occurrence

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

Species Name	Status	Habitat Requirements	Occurrence
Chaparral sand-verbena *Abronia villosa var. aurita*	Federal: None State: None CNPS: Rank 1B.1	Sandy soils in chaparral, coastal sage scrub. Elevations from 75 to 1600 meters.	Does not occur.
Munz's onion *Allium munzii*	Federal: FE State: ST CNPS: 1B.1 MSHCP(b)	Found on mesic exposures or seasonally moist microsites in grassy openings in coastal sage scrub, chaparral, juniper woodland, and valley and foothill grasslands in clay soils. Associated with a special "clay soil flora" found in southwestern Riverside County. At least one population (Bachelor Mountain) is reported to be associated with pyroxenite outcrops instead of clay.	Does not occur.
San Diego ambrosia *Ambrosia pumila*	Federal: FE State: None CNPS: 1B.1 MSHCP(b)	Occurs in open floodplain terraces or in the watershed margins of vernal pools. This species occurs in a variety of associations that are dominated by sparse nonnative grasslands or ruderal habitat in association with river terraces, vernal pools, and alkali playas. San Diego ambrosia generally occurs at low elevations generally less than 1,600 feet amsl in the Riverside County populations and less than 600 feet amsl in San Diego County.	Does not occur.
Marsh sandwort *Arenaria paludicola*	Federal: FE State: SE CNPS: 1B.1	This perennial herb occurs in Bogs and fens, freshwater marshes and swamps.	Does not occur.
Jaeger's milk-vetch *Astragalus pachypus* var. *jaegeri*	Federal: None State: None CNPS: 1B.1 MSHCP	This perennial shrub occurs in sandy or rocky soils in chaparral, cismontane woodland, coastal scrub, and valley and foothill grasslands at elevations from 1,200 to 3,200 feet amsl.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
San Jacinto Valley crownscale *Atriplex coronata* var. *notatior*	Federal: FE State: None CNPS: 1B.1 MSHCP(d)	Occurs primarily in floodplains (seasonal wetlands) dominated by alkaline scrub, playas, vernal pools, and to a lesser extent, alkaline grasslands. Restricted to highly alkaline, silty-clay soils in association with the Traver-Domino-Willows soil association; the majority (approximately 80 %) of the populations are associated with the Willows soil series.	Does not occur.
Parish's brittlescale *Atriplex parishii*	Federal: None State: None CNPS: 1B.1 MSHCP(d)	Habitats where species is found include chenopod scrub, alkaline vernal pools and playas. Blooms from June to October and ranges from 82 to 6,232 feet amsl in elevation.	Does not occur.
Davidson's saltscale *Atriplex serenana var. davidsonii*	Federal: None State: None CNPS: Rank 1B.2 MSHCP(d)	Alkaline soils in coastal sage scrub, coastal bluff scrub. Elevations from 10 to 200 meters.	Does not occur.
Nevin's barberry *Berberis nevinii*	Federal: FE State: SE CNPS: 1B.1 MSHCP(d)	This perennial shrub occurs on sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub.	Does not occur.
thread-leaved brodiaea *Brodiaea filifolia*	Federal: FT State: SE CNPS: 1B.1 MSHCP(d)	Found in heavy soils (e.g., clay) in coastal sage scrub, chaparral, cismontane woodland, and vernal pools from 1,575 feet to 4,000 feet. Within western Riverside County found in southern Santa Ana Mountains, Santa Rosa Plateau, and alkali flats of the San Jacinto River flood plain and west of Hemet (Roberts et al., 2004).	Does not occur.
Plummer's mariposa lily *Calochortus plummerae*	Federal: None State: None CNPS: Rank 4.2 MSHCP	Granitic, rock soils within chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, valley and foothill grassland. Elevations from 100 to 1700 meters.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Intermediate mariposa-lily *Calochortus weedii var. intermedius*	Federal: None State: None CNPS: Rank 1B.2 MSHCP	Rocky soils in chaparral, coastal sage scrub, valley and foothill grassland. Elevations from 105 to 855 meters.	Does not occur.
Payson's jewelflower *Caulanthus simulans*	Federal: None State: None CNPS: Rank 4.2 MSHCP	Sandy or granitic soils in chaparral and coastal scrub. Elevations from 90 to 2200 meters.	Does not occur.
smooth tarplant *Centromadia pungens* ssp. *laevis*	Federal: None State: None CNPS: 1B.1 MSHCP(d)	Found in fine or alkaline soils of seasonally wet chenopod scrub, meadows and seeps, playas, riparian woodland, fallow fields, drainage ditches, and moist situations within valley and foothill grasslands below about 1,575 feet elevation. Tolerant of rural and agricultural land use. Found primarily in southwestern Riverside County, but also a few sites in the interior valleys of San Bernardino, Los Angeles, and San Diego Counties.	Not expected to occur.
Salt marsh bird's-beak *Chloropyron maritimum* ssp. *maritimum*	Federal: FE State: SE CNPS: Rank 1B.2	This annual herb occurs on coastal dunes, coastal salt marshes and swamps.	Does not occur.
Long-spined spineflower *Chorizanthe polygonoides* var. *longispina*	Federal: None State: None CNPS: Rank 1B.2 MSHCP	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands. Elevations from 30 to 1530 meters.	Does not occur.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CNPS: 1B.1 MSHCP	This annual herb prefers sandy or rocky soils in open habitats of chaparral and coastal sage scrub at elevations ranging from 900 to 4,000 feet amsl. The blooming period is from April-June.	Does not occur.
slender-horned spineflower *Dodecahema leptoceras*	Federal: FE State: SE CNPS: 1B.1 MSHCP(b)	This annual herb prefers sandy soils in alluvial scrub, chaparral, cismontane woodland at elevations ranging from 200 to 760 m. The blooming period is from April-June.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
many-stemmed dudleya *Dudley multicaulis*	Federal: None State: None CNPS: 1B.2 MSHCP(b)	Found on the coastal slopes of southern California from Los Angeles and San Bernardino counties south, from about 50 feet to 2,600 feet in elevation. It usually grows on poor soils, often on clay or at the margins of gabbroic rock outcrops in coastal sage scrub and grassland communities.	Does not occur.
Palmer's grapplinghook *Harpagonella palmeri*	Federal: None State: None CNPS: 4.2 MSHCP	This annual herb prefers chaparral, coastal sage scrub, and valley and foothill grassland, occurring in clay soils at elevations ranging from 20 to 955 m. The blooming period is from March-May.	Does not occur.
Coulter's goldfields *Lasthenia glabrata ssp. coulteri*	Federal: None State: None CNPS: Rank 1B.1 MSHCP(d)	Playas, vernal pools, marshes and swamps (coastal salt). Elevations from 1 to 1220 meters.	Does not occur.
Robinson's pepper-grass *Lepidium virginicum* var. *robinsonii*	Federal: None State: None CNPS: 4.3	This annual herb prefers chaparral and coastal scrub at elevations ranging from 1to 885 m. The blooming period is from January-July.	Does not occur.
Little mousetail *Myosurus minimus ssp. apus*	Federal: None State: None CNPS: Rank 3.1 MSHCP(d)	Valley and foothill grassland, vernal pools (alkaline soils). Elevations from 20 to 640 meters.	Does not occur.
Mud nama *Nama stenocarpum*	Federal: None State: None CNPS: Rank 2B.2	Marshes and swamps. Elevations from 5 to 500 meters.	Does not occur.
Spreading navarretia *Navarretia fossalis*	Federal: FT State: None CNPS: Rank 1B.1 MSHCP(b)	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater). Elevations from 30 to 655 meters.	Does not occur.
California Orcutt grass *Orcuttia californica*	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP (b)	Vernal pools. Elevations from 15 to 660 meters.	Does not occur.
Chaparral ragwort *Senecio aphanactis*	Federal: None State: None CNPS: Rank 2B.2	Chaparral, cismontane woodland, coastal scrub. Sometimes associated with alkaline soils.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Salt Spring checkerbloom *Sidalcea neomexicana*	Federal: None State: None CNPS: Rank 2B.2	Mesic, alkaline soils in chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Elevations from 15 to 1530 meters.	Does not occur.
San Bernardino aster *Symphyotrichium defoliatum*	Federal: None State: None CNPS: 1B.2	Found near ditches, streams, and springs in cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, and valley and foothill grassland. Blooms from July to November at elevations from 6 to 6700 feet amsl.	Does not occur.
woven-spored lichen *Texosporium sancti-jacobi*	Federal: - State: - CNPS: 3	This species is restricted to occurring on biotic crusts in arid and semi-arid habitats, such as chaparral or on decaying organic matter. Occurs at elevations from 951 to 2,165 feet amsl. Intolerant of disturbed sites (USDA Forest Service 2007).	Does not occur.
California screw moss *Tortula californica*	Federal: None State: None CNPS: Rank 1B.2	Sandy soil in chenopod scrub, and valley and foothill grassland. Elevations from 10 to 1460 meters.	Does not occur.
Wright's trichocoronis *Trichocoronis wrightii var. wrightii*	Federal: None State: None CNPS: Rank 2B.1 MSHCP(b)	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools. Elevations from 5 to 435 meters.	Does not occur.

4.4.1 Special-Status Plants Detected at the Project Site and Off-Site Improvement Area

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

Smooth tarplant (*Centromadia pungens* ssp. *laevis)* is not expected to occur within the Study Area [on site or off-site driveway improvement area] as it was not detected during general biological surveys or subsequent burrowing owl surveys, which extended into the blooming period for this plant species.

4.5 Special-Status Animals

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

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

Species Name	Status	Habitat Requirements	Occurrence
Invertebrates			
Vernal pool fairy shrimp *Branchinecta lynchi*	Federal: FT State: None MSHCP(a)	Seasonal vernal pools.	Does not occur.
Quino checkerspot butterfly *Euphydryas editha quino*	Federal: FE State: None MSHCP	Larval and adult phases each have distinct habitat requirements tied to host plant species and topography. Larval host plants include *Plantago erecta* and *Castilleja exserta*. Adults occur on sparsely vegetated rounded hilltops and ridgelines and are known to disperse through disturbed habitats to reach suitable nectar plants.	Does not occur.
Riverside fairy shrimp *Streptocephalus woottoni*	Federal: FE State: None MSHCP(a)	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	Does not occur.
Amphibians			
Western spadefoot *Spea hammondii*	Federal: None State: SSC MSHCP	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Does not occur.
Reptiles			
California glossy snake *Arizona elegans occidentalis*	Federal: None State: SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral.	Does not occur.
Coastal whiptail *Aspidoscelis tigris stejnegeri (multiscutatus)*	Federal: None State: SSC MSHCP	Open, often rocky areas with little vegetation, or sunny microhabitats within shrub or grassland associations.	Not expected to occur.
San Diego banded gecko *Coleonyx variegatus abbotti*	Federal: None State: SSC MSHCP	Primarily a desert species, but also occurs in cismontane chaparral, desert scrub, and open sand dunes.	Does not occur.
Red-diamond rattlesnake *Crotalus ruber*	Federal: None State: SSC MSHCP	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
western pond turtle *Emys marmorata*	Federal: None State: SSC 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.
Coast horned lizard *Phrynosoma blainvillii*	Federal: None State: SSC 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	Mostly restricted to habitats with a strong but broken shrub component, especially somewhat open chaparral and black sage (*Salvia mellifera*) or relatively mature, dense coastal sage scrub (personal communication, W. E. Haas, Varanus Biological Services), and may require ground burrows of unknown characteristics for overwintering and refuge.	Does not occur.
Birds			
Tricolored blackbird (nesting colony) *Agelaius tricolor*	Federal: None State: SE 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.
Golden eagle (nesting & wintering) *Aquila chrysaetos*	Federal: None State: FP MSHCP	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Foraging only.
long-eared owl (nesting role) *Asio otus*	Federal: None State: SSC	In southern California, the species breeds and roosts in riparian and oak forests and hunts small mammals at night in adjacent open habitats; known to breed at several dozen locales in San	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
		Diego and Orange counties (Bloom 1994; personal communication, W. E. Haas), and probably do so in smaller numbers in other coastal Southern California counties as well. Species is relatively intolerant to man-made disturbances and in particular night lighting. Foraging lands need to be rodent rich and relatively close to roosting and/or nesting habitat.	
Burrowing owl (burrow sites & some wintering sites) *Athene cunicularia*	Federal: None State: SSC 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.	Absent.
coastal cactus wren *Campylorhynchus brunneicapillus sandiegensis*	Federal: None State: SSC MSHCP	Inhabits arid and semi-arid habitats with cholla cacti and other cacti and spiny trees and shrubs.	Does not occur.
western snowy plover *Charadrius alexandrinus nivosus*	Federal: FT State: SSC	This species inhabits sandy coastal beaches and the shorelines of interior alkaline and saline lakes.	Does not occur.
Northern harrier (nesting) *Circus cyaneus*	Federal: None State: SSC MSHCP	A variety of habitats, including open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands.	Foraging only.
Western yellow-billed cuckoo (nesting) *Coccyzus americanus occidentalis*	Federal: FT State: SE MSHCP(a)	Dense, wide riparian woodlands with well-developed understories.	Does not occur.
White-tailed kite (nesting) *Elanus leucurus*	Federal: None State: FP MSHCP	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Foraging only.
Southwestern willow flycatcher (nesting) *Empidonax traillii extimus*	Federal: FE State: SE MSHCP (a)	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
bald eagle *Haliaeetus leucocephalus* (nesting and wintering role)	Federal: BGEPA State: SE, CFP 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.
Yellow-breasted chat (nesting) *Icteria virens*	Federal: None State: SSC MSHCP	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Does not occur.
Loggerhead shrike (nesting) *Lanius ludovicianus*	Federal: None State: SSC 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.	Foraging only.
California black rail *Laterallus jamaicensis coturniculus*	Federal: None State: ST, FP	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation.	Does not occur.
Coastal California gnatcatcher *Polioptila californica californica*	Federal: FT State: SSC MSHCP	Low elevation coastal sage scrub and coastal bluff scrub.	Does not occur.
Yellow warbler (nesting) *Setophaga petechia*	Federal: None State: SSC MSHCP	Breed in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, forages in woodland, forest, and shrub habitats.	Does not occur.
Least Bell's vireo (nesting) *Vireo bellii pusillus*	Federal: FE State: SE MSHCP(a)	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Does not occur.
Yellow-headed blackbird (nesting) *Xanthocephalus xanthocephalus*	Federal: None State: SSC	Breed and roost in freshwater wetlands with dense, emergent vegetation such as cattails. Often forage in fields, typically wintering in large, open agricultural areas.	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
Mammals			
Dulzura pocket mouse *Chaetodipus californicus femoralis*	Federal: None State: SSC	Coastal scrub, grassland, and chaparral, especially at grass-chaparral edges	Does not occur.
Northwestern San Diego pocket mouse *Chaetodipus fallax fallax*	Federal: None State: SSC MSHCP	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Does not occur.
San Bernardino kangaroo rat *Dipodomys merriami parvus*	Federal: FE State: SSC 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.
Stephens' kangaroo rat *Dipodomys stephensi*	Federal: FE State: ST MSHCP	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Does not occur.
western mastiff bat *Eumops perotis californicus*	Federal: None State: SSC	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Low potential in a foraging role; no potential for roosting as no trees are present to roost in.
Western yellow bat *Lasiurus xanthinus*	Federal: None State: SSC WBWG: H	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Foraging only.
San Diego black-tailed jackrabbit *Lepus californicus bennettii*	Federal: None State: SSC MSHCP	Occupies a variety of habitats but is most common among shortgrass habitats. Also occurs in sage scrub but needs open habitats.	Low potential to occur.
San Diego desert woodrat *Neotoma lepida intermedia*	Federal: None State: SSC MSHCP	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Absent.
pocketed free-tailed bat *Nyctinomops femorosaccus*	Federal: None State: SSC	Found rarely in southwestern California; found in southeastern deserts of California, with portions of western Riverside County apparently on the periphery of their range. Found in pinyon-juniper and Joshua tree woodlands, desert scrub, desert succulent scrub, desert riparian areas, desert	Does not occur.

Species Name	Status	Habitat Requirements	Occurrence
		washes, alkali desert scrub, and palm oases. Roosts in high rock crevices in cliffs, bridges, roofs, and buildings. The species must drop from roost to gain flight speed. Forages primarily on large moths, especially over open water.	
Southern grasshopper mouse *Onychomys torridus ramona*	Federal: None State: SSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	Does not occur.
Los Angeles pocket mouse *Perognathus longimembris brevinasus*	Federal: None State: SSC MSHCP(c)	Fine, sandy soils in coastal sage scrub and grasslands.	Does not occur.
American badger *Taxidea taxus*	Federal: None State: SSC	Most abundant in drier open stages of most scrub, forest, and herbaceous habitats, with friable soils.	Absent. Burrows were not observed during focused burrowing owl and general biological surveys.

STATUS

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

State
SE – State Endangered
ST – State Threatened
SC– State Candidate
CFP – California Fully-Protected Species
SSC – Species of Special Concern

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

Species Name	Status	Habitat Requirements	Occurrence

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

OCCURRENCE

- Does not occur – The study area does not contain habitat for the species and/or the study area does not occur within the geographic range of the species.
- Confirmed absent – The study area 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, 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 Study Area

No special-status animal species were observed within the Study Area as the Study Area has been subject to a previous disturbance from active site maintenance and disking.

4.5.2 Special-Status Wildlife Species Not Observed but with a Potential to Occur in the Study Area

The Study Area habitat quality makes it unlikely for special status species to reside or breed within the Study Area. This habitat quality also has a low potential to support foraging by special-status species although there is the potential for foraging by the following birds: golden eagle (FP), loggerhead shrike (SSC), northern harrier (SSC), and white-tailed kite (FP); and mammals: western yellow bat (SSC) and western mastiff bat (SSC).

For those species covered under the MSHCP, which include: golden eagle, loggerhead shrike, northern harrier, and white-tailed kite, no survey action is required. Similarly, no survey action is required for western yellow bat and western mastiff bat, as these species only hold potential to forage over the Study Area and the Project site/off-site improvement area do not support a potential for bat roosting activity.

The black-tailed jackrabbit has a low potential to occur in the Study Area; however, if present, only a small number of individuals would be expected. This species is covered under the MSHCP and disturbance to this species would be considered less than significant.

4.5.3 Special-Status Wildlife Species Confirmed Absent Through Focused Surveys in the Study Area

Although the Study Area is within the MSHCP Burrowing Owl Survey Area, burrowing owls were confirmed absent from the site during the 2018 focused breeding season surveys. The

American badger and San Diego desert woodrat were also confirmed absent, as no burrows that could support American badger, and no middens that could support San Diego desert woodrat were observed during general biological surveys and focused burrowing owl surveys.

4.5.4 Raptor Use

The Study Area provides suitable foraging and breeding habitat for a number of raptor species, including special-status raptors.

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

Many of the raptors that would be expected to forage and nest within western Riverside County are fully covered species under the MSHCP with the MSHCP providing the necessary conservation of both foraging and nesting habitats. Some common raptor species (e.g., American Kestrel and Red-tailed Hawk) are not covered by the MSHCP but are expected to be conserved with implementation of the Plan due to the parallel habitat needs with those raptors covered under the Plan.

The MSHCP does not provide Fish and Game Code take for raptors covered under the Plan.

Appendix B (faunal compendium) provides a list of the raptors detected over the course of the field studies. These species include red-tailed hawk and Cooper's hawk (*Accipiter cooperii*). Great horned owl (*Bubo virginianus*) and barn owl (*Tyto alba*) may also forage at the study area. The Study Area lacks potential nesting habitat (e.g., mature trees, tall shrubs) for these and other raptor species but is expected to provide foraging habitat for all of these species in the form of insects, spiders, lizards, snakes, small mammals, and other birds.

4.5.5 Nesting Birds

The Study Area contains shrubs and ground cover that provide suitable habitat for nesting native birds. Intending to, or inducing mortality of native birds (including the taking of eggs) is prohibited under the California Fish and Game Code.[11]

4.5.6 Critical Habitat

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

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

4.6 Jurisdictional Delineation

4.6.1 Corps Jurisdiction

There is no Corps jurisdiction within the Study Area. The Study Area contains a roadside ditch constructed in, and draining, wholly upland areas, which does not support a relatively permanent flow of water. As this feature is the only drainage-related feature on the Project area or the off-site driveway improvement area, and it has been constructed in, and drains, wholly upland areas which do not support a relatively permanent flow of water, there are no Corps jurisdictional waters which would be regulated pursuant to Section 404 of the CWA within the Project site or within the off-site driveway improvement area.

Areas west of the Project site do contain a concrete-bottomed, concrete-sided flood control channel which discharges into a down-drain westerly of the Project boundary. Flows from this flood control channel discharge into the storm drain system before entering the Project site. The Project site's western boundary has been partially graded and excavated and includes minor evidence of sheet flow from this concrete flood control channel during very large storm events, but there is no evidence of bed, bank, or channel, and these flows dissipate into an upland area shortly after entering the Project site.

4.6.2 Regional Board Jurisdiction

Regional Board jurisdiction associated with the Study Area totals 0.17 acre, none of which consists of jurisdictional wetlands. A total of 1,235 linear feet of concrete roadside ditch is present.

Areas west of the Project site contain a concrete-bottomed, concrete-sided flood control channel which discharges into a down-drain westerly of the Project boundary. Flows from this flood control channel discharge into the storm drain system before entering the Project site. The Project site's western boundary has been partially graded and excavated and includes minor evidence of sheet flow from this concrete flood control channel during very large storm events, but there is no evidence of bed, bank, channel, or an ordinary high-water mark (OHWM), and these flows dissipate into an upland area shortly after entering the Project site.

Flows from the roadside ditch enter the Project site along its westerly boundary and continue easterly for 1,235 linear feet before entering a culvert at the intersection of Indian Avenue and Ramona Expressway. Eventually, flows from this ditch enter the Perris Valley Storm Channel (PVSC) just east of Redlands Avenue.

The OHWM for the roadside ditch is approximately five feet wide and is evidenced by the presence of water marks, debris wracking, and sediment deposits. There is no vegetation within the roadside ditch.

A graphic depicting the limits of Regional Board jurisdiction (and impacts to Regional Board jurisdiction) is included as Exhibit 6A.

4.6.3 CDFW Jurisdiction

CDFW jurisdiction associated with the Study Area totals 0.26 acre, all of which consists of non-riparian streambed. A total of 1,235 linear feet of concrete roadside ditch is present.

Areas west of the Project site contain a concrete-bottomed, concrete-sided flood control channel which discharges into a down-drain westerly of the Project boundary. Flows from this flood control channel discharge into the storm drain system before entering the Project site. The Project site's western boundary has been partially graded and excavated and includes minor evidence of sheet flow from this concrete flood control channel during very large storm events, but there is no evidence of bed, bank, channel, or high-water mark (HWM), and these flows dissipate into an upland area shortly after entering the Project site.

Flows from the roadside ditch enter the Project site along its westerly boundary and continue easterly for 1,235 linear feet before entering a culvert at the intersection of Indian Avenue and Ramona Expressway. Eventually, flows from this ditch enter the PVSC just east of Redlands Avenue.

The HWM for the roadside ditch is approximately eight feet wide and is evidenced by the presence of water marks, debris wracking, sediment deposits, bed, bank, and channel. There is no vegetation within the roadside ditch.

A graphic depicting the limits of CDFW jurisdiction (and impacts to CDFW jurisdiction) is included as Exhibit 6B.

4.7 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.

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

The MSHCP defines riparian/riverine areas as *lands which contain Habitat dominated by trees, shrubs, persistent emergent mosses and lichens, which occur close to or which depend upon soils moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.*

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

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

As noted in Section 4.6.2 and 4.6.3 above, the Study Area consists of 0.26 acre of a concrete-bottomed, concrete-sided roadside ditch constructed in, and draining, wholly upland areas which does not support a relatively permanent flow of water. This roadside ditch has been artificially constructed in the uplands and is not a natural drainage feature that would be considered riparian/riverine habitat. Instead, this feature is a human-induced, artificially constructed concrete ditch constructed to collect road runoff which does not meet the classification of riparian/riverine resources under the MSHCP as the ditch does not contain habitat dominated by trees, shrubs, or persistent emergent mosses and lichens, and the ditch is concrete-bottomed and concrete-sided, thus lacking habitat for species targeted for conservation under the MSHCP.

As a result, no riparian/riverine resources under the MSHCP are present. No vernal or seasonal pools are present within the Study Area.

4.8 Wildlife Linkages/ Corridors and Nursery Sites

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

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

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

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

The Study Area do not represent a nursery site due to the high level of on-going human disturbance resulting from active site maintenance.

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

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

Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. A cumulative impact can occur from multiple individual effects from the same project, or from several projects. The cumulative impact from several projects is the change in the environment resulting from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

5.1 California Environmental Quality Act (CEQA)

5.1.1 Thresholds of Significance

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

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

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

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

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

5.1.2 Criteria for Determining Significance Pursuant to CEQA

Appendix G of the 2019 State CEQA Guidelines indicate that a project may be deemed to have a significant effect on the environment if the project is likely to:

> *a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*

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

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

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

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

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

5.2 Impacts to Natural Vegetation

Development of the proposed Study Area would impact approximately 26.84 acres of ruderal/disturbed/developed habitat types. The Study Area does not support native vegetation communities; therefore, no direct impacts to native vegetation communities, including special-status vegetation communities, would result from disturbing the Study Area.

Disturbance within the Study Area is not expected to cause potential indirect impacts to the natural vegetation communities downstream of the proposed development, as the connection to the PVSC passes through various culverts and other flood control structures before entering the PVSC. Indirect effects associated with development can include water quality impacts associated with drainage into downstream flood control channels; lighting effects; noise effects; invasive plant species from landscaping; and effects from human access into adjacent open space, such as recreational activities (including off-road vehicles and hiking), pets, dumping, etc. Temporary, indirect effects may also occur as a result of construction-related activities.

Impacts to these communities resulting from development of the Project site, off-site driveway improvement area and off-site drainage improvements are potentially significant prior to mitigation. However, impacts will be reduced to a less than significant level through preparation and implementation of a stormwater pollution prevention plan and compliance with National Pollutant Discharge Elimination System requirements.

5.3 Impacts to Special-Status Plants

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

The Study Area is not located within an MSHCP NEPSSA or CAPSSA. Due to the poor habitat quality of the Study Area, including the concrete roadside ditch, the Study Area is not expected to support special-status plant species that could pose a potentially significant impact under CEQA. Therefore, impacts to special status plant species would not occur as a result of development of the proposed Project or off-site driveway improvement area and a DBESP is not required.

5.4 Impacts to Special-Status Animals

The Study Area does not support special-status animals.

With the exception of the burrowing owl, for those species covered under the MSHCP, no additional survey, compensatory, or avoidance action would be required, as the Project area and off-site driveway improvement area is not located within a Small Mammal, Amphibian, or Criteria Area Species Survey Area, and does not contain suitable habitat for riparian bird species or vernal pools.

Disturbance within the Study Area will remove habitat with the potential to support foraging by the Fully Protected golden eagle and white-tailed kite; MSHCP adequately conserved species, including northern harrier and loggerhead shrike; as well as non-listed, special-status species not covered by the MSHCP, including western yellow bat and western mastiff bat. Due to the highly disturbed nature of the Study Area and its habitat, the Study Area provides a limited foraging resource for the species noted above. Therefore, due to its limited nature and the relative abundance of foraging habitat within the Study Area and vicinity, it is not expected to reach a level of significance.

5.5 Impacts to Critical Habitat

Disturbance within the Study Area will not impact lands proposed or designated as critical habitat by the USFWS.

5.6 Impacts to Nesting Birds

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

Impacts to native birds are prohibited by the California Fish and Game Code and impacts to native birds caused by disturbance within the Study Area would not be a significant impact under CEQA. The native birds with potential to nest within the Study Area 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 disturbance within the Study Area would not significantly affect regional, let alone local populations of such species. A measure is identified in Section 6.0 of this report to avoid impacts to nesting birds.

5.7 Impacts to Wildlife Migration/Nurseries

The Study Area lacks migratory wildlife corridors and wildlife nursery sites.

The Study Area is not identified by the MSHCP within a linkage or corridor. In addition, the Study Area does not contain the structural topography and vegetative cover that facilitate regional wildlife movement. Therefore, the disturbance within the Study Area will not result in an impact to wildlife migration.

The Study Area does not represent a nursery site due to the its condition. Therefore, disturbance within the proposed Study Area will not result in an impact to wildlife nurseries.

5.8 Impacts to Jurisdictional Waters

Disturbance within the Study Area, as proposed, will result in permanent impact to 0.17 acre of Regional Board jurisdiction, none of which consist of jurisdictional wetlands, and 0.26 acre of CDFW jurisdiction, none of which consists of vegetated riparian habitat and all of which consists of non-riparian, concrete-lined roadside ditch. A total of 1,235 linear feet of roadside ditch will be permanently disturbed.[12]

This non-riparian, concrete-lined roadside ditch does not support riparian vegetation (herbaceous or woody) and would support water flow only during and shortly after rainfall events. This ditch does not provide habitat to plant or wildlife species beyond what the adjacent uplands provide. Although removal of this ditch triggers Regional Board Waste Discharge and Fish and Game Code 1602 permitting/authorizations, the removal of up to 0.26 acre of this ephemeral, concrete bottomed and sided roadside ditch would not significantly impact water resources or associated biological resources in the vicinity of the Study Area or at a regional level. The proposed impact would be potentially significant under CEQA but would be reduced to a less than significant level with mitigation incorporated.

5.9 Impacts to MSHCP Riparian/Riverine Areas

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*

[12] Please note that the Project jurisdictional delineation report evaluated an off site portion of the roadside ditch which is currently on the Project site as well. Although the delineation included this off site area, a Regional Board/CDFW impact assessment for this off site area is not included in this evaluation because disturbance and development only will occur on the Project Site and off-site driveway improvement area.

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.*

As noted in Section 4.6.2 and 4.6.3 above, the Project/off-site improvement impact area supports 0.26 acre of concrete-sided concrete-bottomed roadside ditch constructed in, and draining, wholly upland areas which does not support a relatively permanent flow of water. This roadside ditch has been artificially constructed in the uplands and is not a natural drainage feature that would be considered riparian/riverine habitat. Instead, this feature is a human-induced, artificially constructed ditch which collects road runoff and does not meet the classification of riparian/riverine resources under the MSHCP as the ditch does not contain habitat dominated by trees, shrubs, or persistent emergent mosses and lichens, and the ditch is concrete-bottomed and concrete-sided, thus lacking habitat for species targeted for conservation under the MSHCP.

As a result, no riparian/riverine resources under the MSHCP are present. No vernal or seasonal pools are present within the Study Area.

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.

Disturbance within the Study Area is not expected to result in significant indirect impacts to special-status biological resources, as the site is not adjacent to the MSHCP Conservation Area and runoff only reaches the MSHCP Conservation Area through a concrete roadside ditch passing through several culverts over approximately one mile before entering the nearest PQP lands [which are a part of the MSHCP Conservation Area], the PVSC; therefore, disturbance within the Study Area is not expected to result in significant indirect impacts to special-status biological resources. As such, the MSHCP Urban/Wildland Interface Guidelines (MSHCP *Volume I, Section 6.1.4*) do not apply to this Study Area.

6.0 MITIGATION/AVOIDANCE MEASURES

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

6.1 Burrowing Owl

The Study Area contains suitable habitat for burrowing owls; however, burrowing owls were not detected within the site during focused surveys. MSHCP Objective 6 for burrowing owls requires that 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:

- A qualified biologist will conduct a pre-construction presence/absence survey for burrowing owls within 30 days prior to site disturbance. If burrowing owls are detected onsite or within the off-site improvement areas, the owls will be relocated/excluded from the site outside of the breeding season following accepted protocols, and subject to the approval of the City and wildlife agencies, if necessary.

6.2 Nesting Birds

The Study Area 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 or off-site driveway improvement area, 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

Disturbances within the Study Area, as proposed, will result in permanent impact to 0.17 acre of Regional Board jurisdiction, none of which consists of jurisdictional wetlands, and 0.26 acre of CDFW jurisdiction, none of which consists of vegetated riparian habitat and all of which consists of non-riparian roadside ditch. A total of 1,235 linear feet of roadside ditch will be permanently disturbed.

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

- The Project Proponent shall compensate for permanent impacts to 0.17 acre of Regional Board jurisdiction and 0.26 acre of CDFW jurisdiction at a minimum 1:1 mitigation-to-impact ratio through the purchase of rehabilitation, re-establishment, and/or establishment mitigation credits at an approved mitigation bank or in-lieu fee program within the San Jacinto River and/or Santa Ana River Watershed. The mitigation receipt from this fee payment will be provided to the Lead Agency prior to permanent disturbance to the roadside ditch on site.

7.0 MSHCP CONSISTENCY ANALYSIS

The purpose of this section is to provide an analysis of the proposed Study Area 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 Study Area is located within the Mead Valley Area Plan of the MSHCP [Exhibit 4 – MSHCP Overlay Map]. The Study Area is not located within the MSHCP NEPSSA or the CAPSSA. The Study Area is located within the MSHCP Burrowing Owl Survey Area but is not located within the MSHCP Mammal or Amphibian Survey Areas, or Core and Linkage areas.

The proposed Study Area is not subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process because the site is not located within a Criteria Cell and the Study Area is not located within MSHCP Conserved Lands, including PQP lands.

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

The MSHCP defines riparian/riverine areas as *lands which contain Habitat dominated by trees, shrubs, persistent emergent mosses and lichens, which occur close to or which depend upon soils moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.*

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

As noted in Section 4.6.2 and 4.6.3 above, the Project/off-site improvement impact areas support 0.26 acre of roadside ditch constructed in, and draining, wholly upland areas which does not support a relatively permanent flow of water. This roadside ditch has been artificially constructed in the uplands and is not a natural drainage feature that would be considered riparian/riverine habitat. Instead, this feature is a human-induced, artificially constructed concrete-sided, concrete-bottomed ditch which does not meet the classification of riparian/riverine resources under the MSHCP. The ditch does not contain habitat dominated by

trees, shrubs, or persistent emergent mosses and lichens, and the ditch is concrete-bottomed and concrete-sided, thus lacking habitat for species targeted for conservation under the MSHCP.

As a result, no riparian/riverine resources under the MSHCP are present and no impact to MSHCP riparian/riverine resources would occur; therefore, the Study Area will not require a DBESP.

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

7.3 Protection of Narrow Endemic Plants

Volume I, Section 6.1.3 of the MSHCP requires that within identified 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 Study Area is not located within a NEPSSA; therefore, avoidance of Narrow Endemic Plant Species is not required, and the Project is consistent with the biological requirements of the MSHCP regarding Narrow Endemic Plant Species.

7.4 Guidelines Pertaining to the Urban/Wildland Interface

The MSHCP Urban/Wildland Interface Guidelines are intended to address indirect effects associated with locating development in proximity to the MSHCP Conservation Area. As the MSHCP Conservation Area is assembled, development is expected to occur adjacent to the Conservation Area. Future development in proximity to the MSHCP Conservation Area may result in edge effects with the potential to adversely affect biological resources within the Conservation Area. As the Study Area is not located within or adjacent to a MSHCP Conservation Area, implementation of MSHCP Urban/Wildland Interface Guidelines is not required.

7.5 Additional Survey Needs and Procedures

The Study Area is not located within the MSHCP NEPSSA or the CAPSSA. The Study Area is located within the MSHCP Burrowing Owl Survey Area but is not located within the MSHCP Mammal or Amphibian Survey Areas, or Core and Linkage areas.

Burrowing owls were not detected within the Study Area during 2018 focused surveys. MSHCP Objective 6 for burrowing owls requires that pre-construction surveys prior to site grading. As such, a pre-construction burrowing owl survey will occur within 30 days of Project- or off-site improvement related impacts for consistency with survey requirements of the MSHCP Burrowing Owl Survey Area.

7.6 Conclusion of MSHCP Consistency

As outlined above, the development of the Project, within the Study Area, will be consistent with the biological requirements of the MSHCP; specifically pertaining to the Project's relationship to reserve assembly, *Section 6.1.2* (Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools), *Section 6.1.3* (Protection of Narrow Endemic Plant Species), *Section 6.1.4* (Guidelines Pertaining to the Urban/Wildlands Interface), and *Section 6.3.2* (Additional Survey Needs and Procedures). Because disturbances within the Study Area associated with development of the Project is consistent with the requirements of the MSHCP, the Project's/off-site improvement's biological impacts to habitat, features and species which are protected under the MSHCP will be less than otherwise would be anticipated, and all Project impacts addressed by compliance with the MSHCP will be mitigated.

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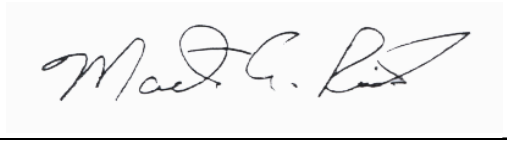
9.0 CERTIFICATION

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

Signed: 

Date: February 19, 2019

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Source: ESRI World Street Map

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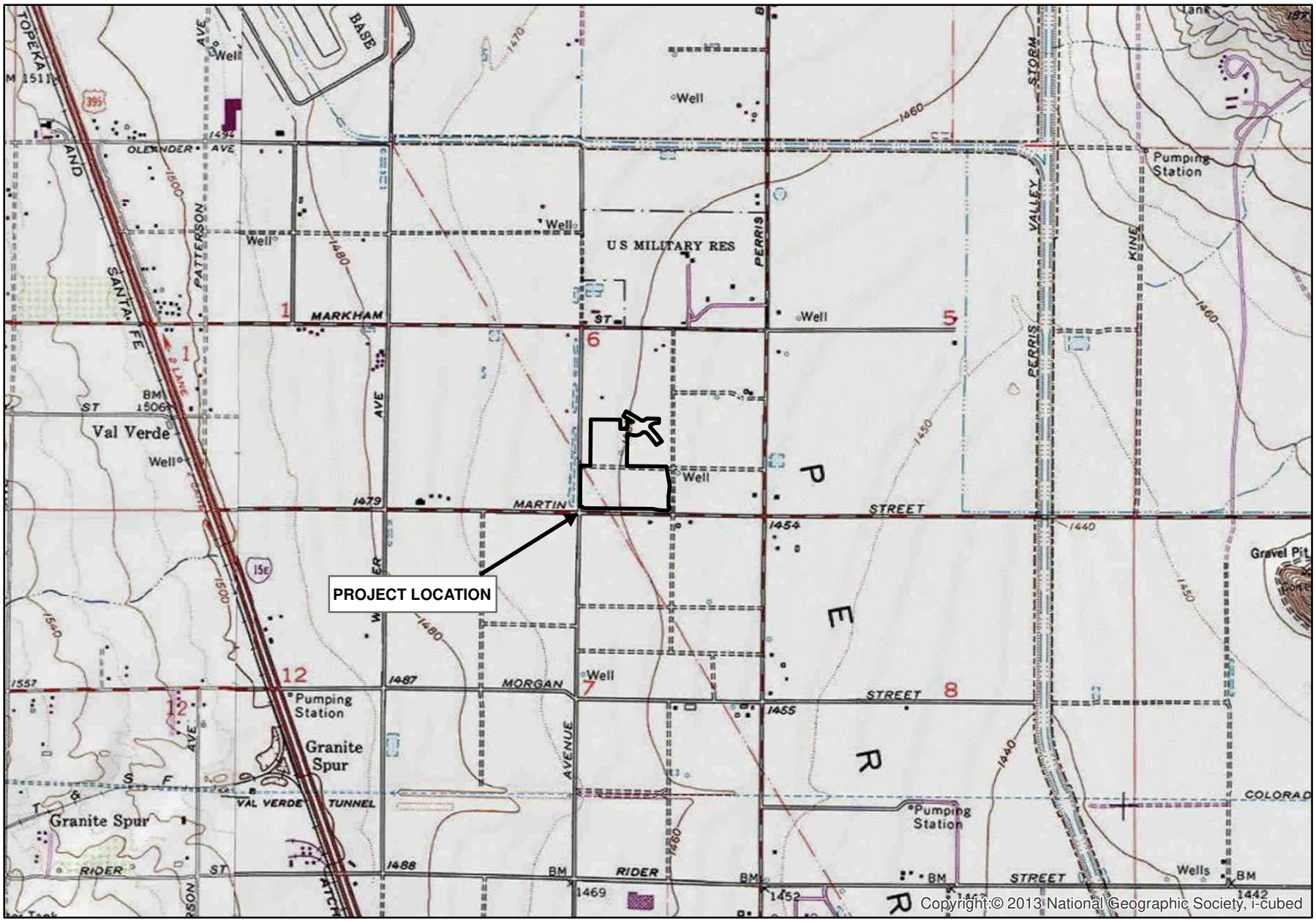
INDIAN/RAMONA PROJECT SITE

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Perris, CA quadrangle

N

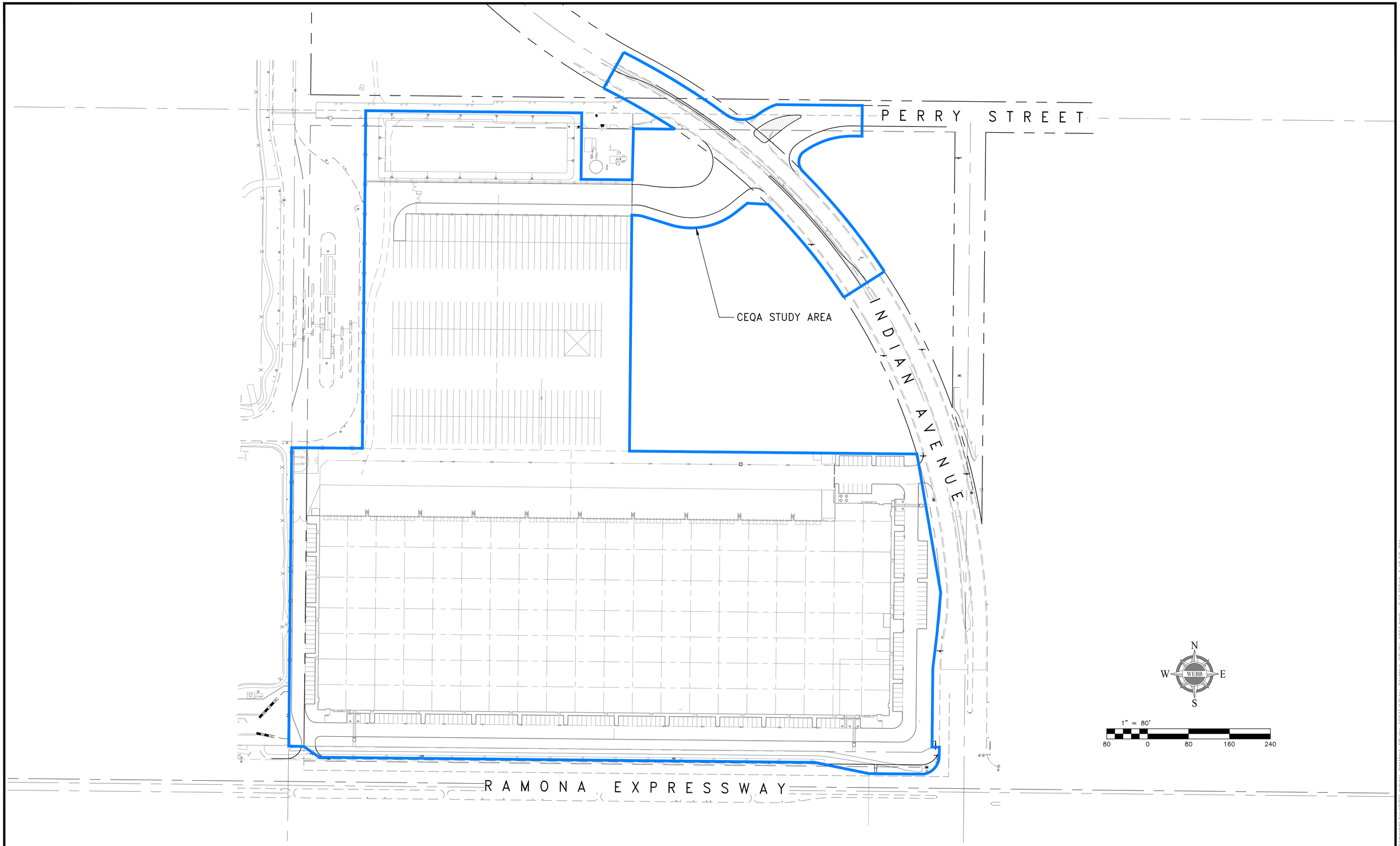
0 1,000 2,000 4,000 Feet

INDIAN/RAMONA PROJECT SITE

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2



SCALE:	ALBERT A. WEBB ASSOCIATES — ENGINEERING CONSULTANTS, 3788 McCRAY STREET, RIVERSIDE CA. 92506, PH. (951) 686-1070, FAX (951) 788-1256	IDI INDIAN AND RAMONA	W.O.
DATE:			SHEET 1
DESIGNED:			OF 1 SHEETS
CHECKED:			
PLN CK REF:	PLOT DATE: 4-Feb-19	STUDY AREA EXHIBIT	DWG. NO.
F.B.			

G:\2017\17-0108\DRAWINGS\EXHIBITS\INDIAN_RAMONA STUDY AREA\INDIAN_RAMONA STUDY AREA.DWG 2/4/2019 1:48:50 PM

Study Area Boundary

Burrowing Owl Survey Area

N

0 87.5 175 350

Feet

1 inch = 175 feet

INDIAN/RAMONA PROJECT SITE

MSHCP Overlay Map

GLENN LUKOS ASSOCIATES

Exhibit 4

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Study Area Boundary

Ruderal/Disturbed/Developed - 27.57 ac.

N

0 87.5 175 350

Feet

1 inch = 175 feet

INDIAN/RAMONA PROJECT SITE

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 5

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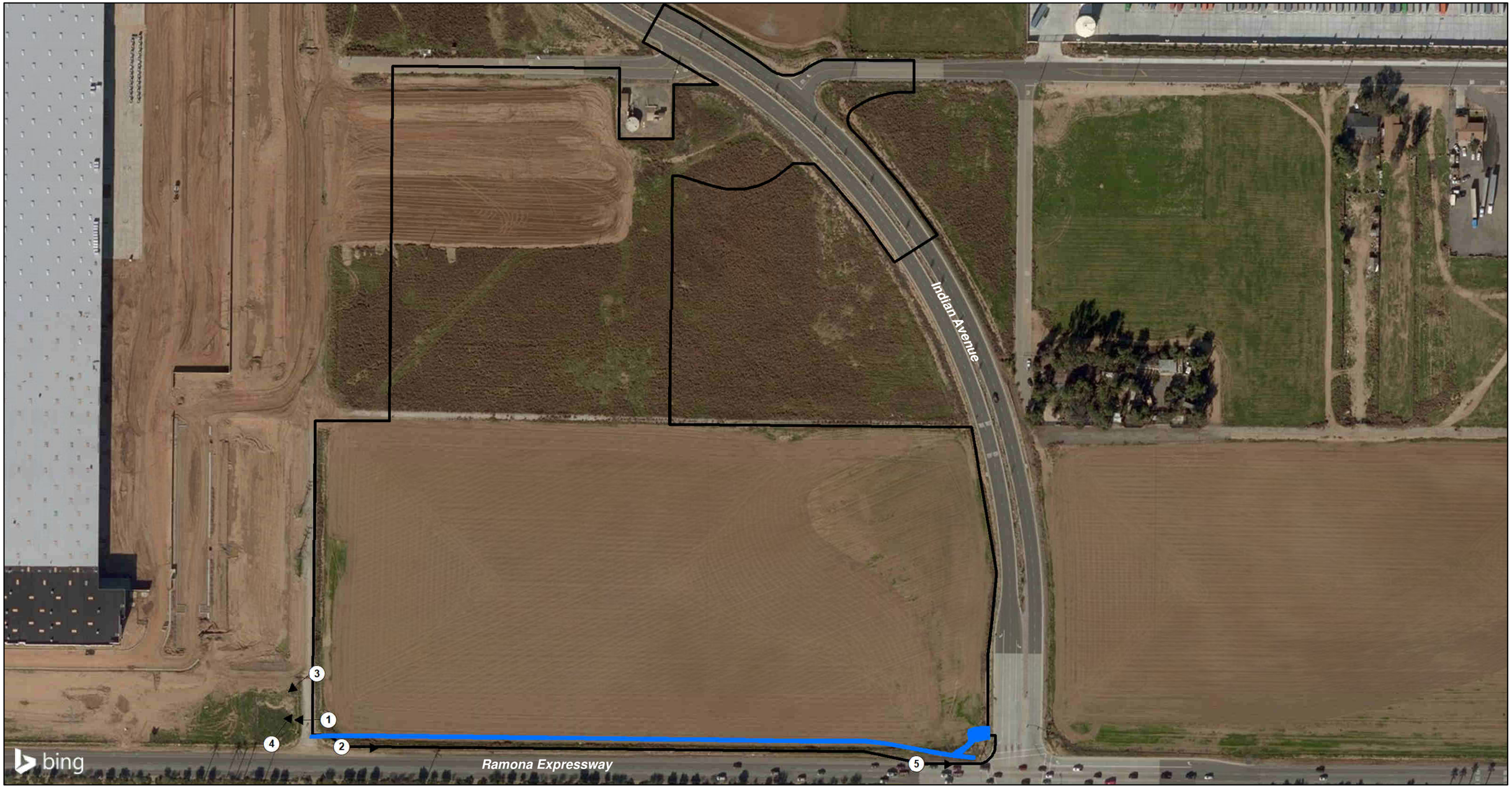

Study Area Boundary

RWQCB Jurisdictional Feature

1 Photo Location

N

0 87.5 175 350

Feet

1 inch = 175 feet

INDIAN/RAMONA PROJECT SITE

RWQCB Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 6A

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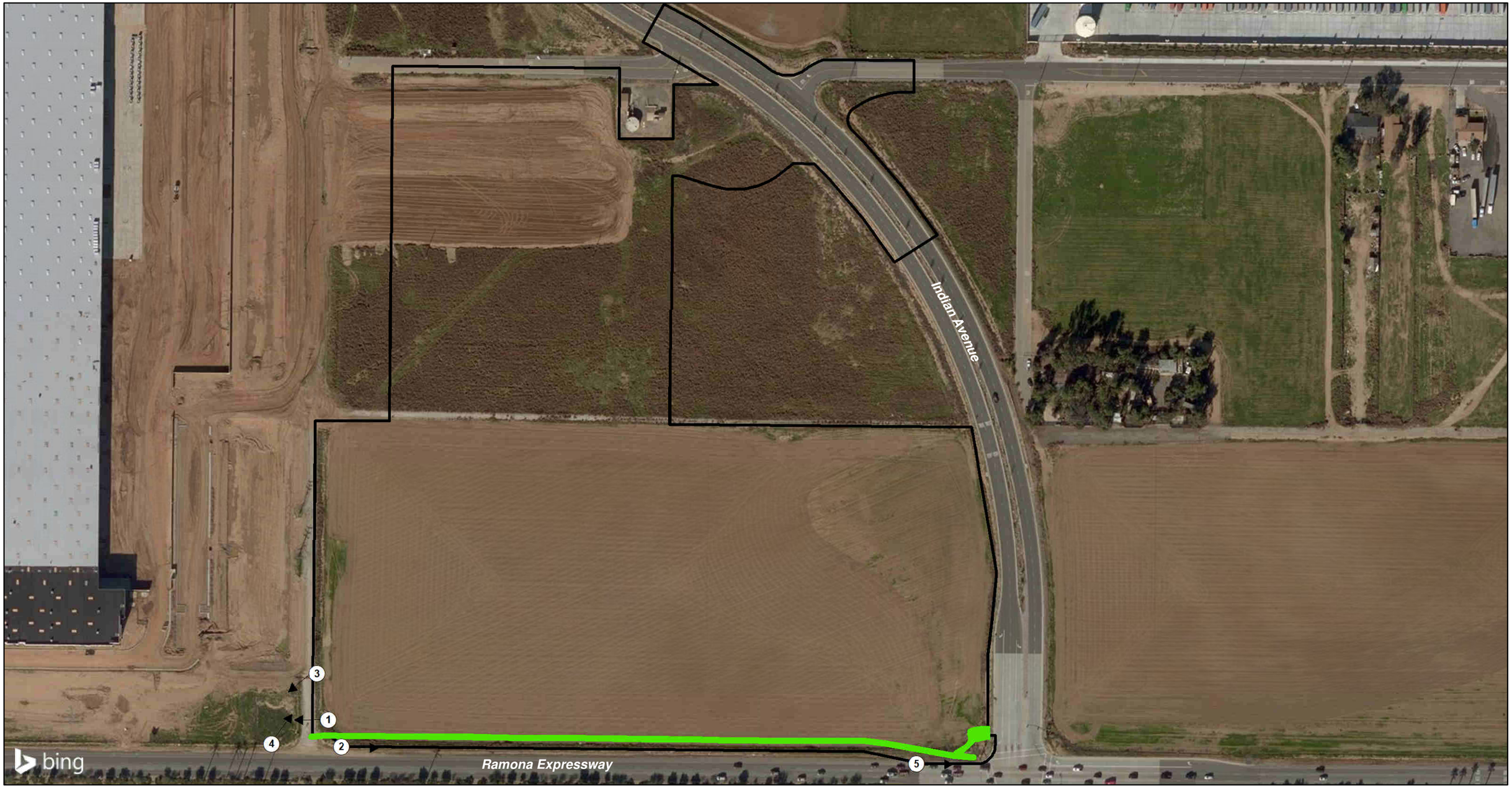

Study Area Boundary

CDFW Jurisdictional Feature

1 Photo Location

N

0 87.5 175 350

Feet

1 inch = 175 feet

INDIAN/RAMONA PROJECT SITE

CDFW Jurisdictional Delineation Map

GLENN LUKOS ASSOCIATES

Exhibit 6B

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Study Area Boundary

EpA - Exeter sandy loam, deep, 0 to 2 percent slopes

PaA - Pachappa fine sandy loam, 0 to 2 percent slopes

N

0 87.5 175 350

Feet

1 inch = 175 feet

INDIAN/RAMONA PROJECT SITE

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 5

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Photograph 1: Westerly view of on-site ditch at Project property boundary. Note the concrete sides and bottom for this roadside ditch.

Photograph 2: Easterly view of roadside ditch along northern edge of Ramona Expressway. Note the presence of this ditch and a lack of other drainage features on site.

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Exhibit 8

IDI Indian-Ramona Project

Site Photographs, Sheet 1

Photograph 3: Easterly view of Project site looking across the site toward Indian Avenue.

Photograph 4: Photograph depicting off site improvement area.

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Exhibit 8

IDI Indian-Ramona Project

Site Photographs, Sheet 2

Photograph 5: Northeasterly view of Project site looking across the site toward Indian Avenue and the Project's northeastern boundary. Again, note the disturbed condition of the site.

Photograph 6: Westerly view of Project site looking across the site toward the General Mills Plant. Note the disturbed condition of the site.

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Exhibit 8

IDI Indian-Ramona Project

Site Photographs, Sheet 3

APPENDIX A

FLORAL COMPENDIUM

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

SCIENTIFIC NAME	COMMON NAME
MAGNOLIOPHYTA	**FLOWERING PLANTS**
MONOCOTYLEDONES	**MONOCOTS**
POACEAE	**Grass Family**
* *Bromus diandrus*	ripgut brome
* *Bromus madritensis*	foxtail brome
EUDICOTYLEDONES	**EUDICOTS**
AMARANTHACEAE	**Amaranth Family**
ASTERACEAE	**Sunflower Family**
Ambrosia acanthicarpa	annual bursage
* *Erigeron canadensis*	horseweed
Helianthus annuus	western sunflower
* *Oncosiphon piluliferum*	stinknet
BORAGINACEAE	**Borage Family**
Amsinckia menziesii	small-flowered fiddleneck
BRASSICACEAE	**Mustard Family**
* *Hirschfeldia incana*	short-pod mustard
* *Sisymbrium irio*	London rocket
CHENOPODIACEAE	**Goosefoot Family**
* *Salsola tragus*	Russian thistle

SOLANCEAE		**Nightshade Family**
*	*Datura stramonium*	Jimson weed
*	*Nicotiana glauca*	tree tobacco

APPENDIX B
FAUNAL COMPENDIUM

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

SCIENTIFIC NAME	COMMON NAME
INSECTA	**INSECTS**
FORMICIDAE	**Ants**
Messor sp.	harvester ant
Pogonomyrmex sp.	harvester ant
REPTILIA	**REPTILES**
PHRYNOSOMATIDAE	**Spiny Lizard**
Uta stansburiana	common side-blotched lizard
AVES	**BIRDS**
ACCIPITRIDAE	**Hawks And Old World Vultures**
Accipiter cooperii	Cooper’s hawk
Buteo jamaicensis	red-tailed hawk
ALAUDIDAE	**Larks**
Eremophila alpestris actia	California horned lark
CHARADRIIDAE	**Charadriiformes**
Charadrius vociferus	killdeer

COLUMBIDAE		**Pigeons And doves**
*	*Streptopelia decaocto*	Eurasian collared-dove
	Zenaida macroura	mourning dove
CORVIDAE		**Crows And Jays**
	Corvus brachyrhynchos	American crow
	Corvus corax	common raven
FALCONIDAE		**Falconiformes**
	Falco sparverius	American kestrel
TYRANNIDAE		**Tyrant Flycatchers**
	Tyrannus vociferans	Cassin's kingbird

MAMMALIA

MAMMALS

CANIDAE		**Foxes, Wolves And Allies**
	Canis latrans	coyote
LEPORIDAE		**Rabbits and Hares**
	Sylvilagus audubonii	Audubon's cottontail
SCIURIDAE		**Squirrels**
	Otospermophilus beecheyi	California ground squirrel