

APPENDIX D: BIOLOGICAL TECHNICAL REPORT

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BIOLOGICAL TECHNICAL REPORT

FOR

PALOMINO BUSINESS PARK PROJECT

**LOCATED IN THE CITY OF NORCO,
RIVERSIDE COUNTY, CALIFORNIA**

Prepared For:

EPD Solutions, Inc.
2030 Main Street
Suite 1200
Irvine, California 92614
Contact: Konnie Dobrev
Phone: (949) 794-1183

Prepared By:

Glenn Lukos Associates, Inc.
29 Orchard
Lake Forest, California 92630
Phone: (949) 837-0404
Report Preparer: Jillian Stephens

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INFORMATION SUMMARY

- A. Report Date:** October 2019
- B. Report Title:** Biological Technical Report for Palomino Business Park
- C. Project Site Location:** Pacific Avenue and Second Street, Norco, Riverside County
- D. Owner/Applicant:** Konnie Dobrev
EPD Solutions, Inc.
2030 Main Street
Suite 1200
Irvine, California 92614
Email: Konnie@epdsolutions.com
Phone: (949) 794-1183
- E. Principal Investigator:** Glenn Lukos Associates, Inc.
29 Orchard
Lake Forest, California 92630
Phone: (949) 837-0404
Fax: (949) 837-5834
Report Preparer: Jillian Stephens
- F. Report Summary:**

A biological study was performed for the proposed Palomino Business Park located in the City of Norco, Riverside County, California. The Project would redevelop approximately 116 acres of land within the City of Norco for a new business park that would provide industrial, commercial, and office uses. The Project includes construction of approximately 2,050,000 square feet of new building space and related on- and offsite improvements. Implementation of the Project would include demolition of 36 existing single-family residences, industrial warehouse buildings, related improvements, and building remnants (e.g., foundations, etc.) from previous uses.

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 Eastvale Area Plan of the Western Riverside County Multiple-Species Habitat Conservation Plan (MSHCP), but outside of the MSHCP Criteria Area, the Criteria Area Plant Species Survey Area, Mammal and Amphibian Survey Areas, as well as outside of Core and Linkage areas. The Project Study Area occurs in the Narrow Endemic Plant Species Survey Area and Burrowing Owl Survey Area for the MSHCP.

Habitat assessments were performed for special-status plants and animals, and evaluations were performed to determine the presence/absence of federal and/or state jurisdictional waters and wetlands, including MSHCP Riparian/Riverine areas and vernal pools. The Project Study Area does not support potential habitat for riparian birds or fairy shrimp. The Project Study Area supports both state and federal jurisdictional waters and MSHCP Riparian/Riverine areas. No vernal pools are present. A focused habitat assessment for rare plants was performed and suitable habitat was determined to be absent from the site. Focused surveys for burrowing owl were performed and the species was determined to be absent from the site. There is no proposed or designated Critical Habitat present.

G. Individuals Conducting Fieldwork:

Jillian Stephens, Biologist
David Smith, Biologist
Lesley Lokovic, Wetland Specialist

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1.0 INTRODUCTION

1.1 Background and Scope of Work

This document provides the results of general and focused biological surveys for the approximately 116-acre Palomino Business Park (the Project) located in the City of Norco, Riverside, California. This report identifies and evaluates impacts to biological resources associated with the proposed Project in the context of the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP), the California Environmental Quality Act (CEQA), and State and Federal regulations such as the Endangered Species Act (ESA), Clean Water Act (CWA), and the California Fish and Game Code.

The scope of this report includes a discussion of existing conditions for the approximately 116-acre Project site, all methods employed regarding the general biological surveys and focused biological surveys, the documentation of botanical and wildlife resources identified (including special-status species), and an analysis of impacts to biological resources. Methods of the study include a review of relevant literature, field surveys, and a Geographical Information System (GIS)-based analysis of vegetation communities. As appropriate, this report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), the California Native Plant Society (CNPS), and other applicable agencies/organizations.

The field study focused on a number of primary objectives that would comply with CEQA and MSHCP requirements, including (1) general reconnaissance survey and vegetation mapping; (2) general biological surveys; (3) habitat assessments for special-status plant species (including species with applicable MSHCP survey requirements); (4) habitat assessments for special-status wildlife species (including species with applicable MSHCP survey requirements); (5) assessment for the presence of wildlife migration and colonial nursery sites; (6) assessments for MSHCP riparian/riverine areas and vernal pools; and (7) assessments for areas subject to the jurisdiction of the U.S. Army Corps of Engineers (Corps) jurisdiction pursuant to Section 404 of the Clean Water Act, State Water Quality Control Board pursuant to Section 401 of the Clean Water Act, and CDFW jurisdiction pursuant to Division 2, Chapter 6, Section 1600–1616 of the California Fish and Game Code. Observations of all plant and wildlife species were recorded during the biological studies and are included as Appendix A: Floral Compendium and Appendix B: Faunal Compendium.

1.2 Project Location

The Project site comprises approximately 116 acres in the City of Norco, Riverside County, California [Exhibit 1 – Regional Map] and is located within Section 13 of Township 3 South, Range 7 West, of the U.S. Geological Survey (USGS) 7.5” quadrangle map Corona North, California (dated 1967 and photorevised in 1981) [Exhibit 2 – Vicinity Map]. The Project site is generally bordered by Second Street to the north, Pacific Avenue to the west, First Street to the south, and Mountain Avenue to the east. Small portions of the Project site extend south of First Street and east of Mountain Avenue. Additional improvements will occur along Second Street westerly of Pacific Avenue.

1.3 Project Description

The Palomino Business Park (Project) would redevelop approximately 116 acres of land within the City of Norco for a new business park that would provide industrial, commercial, and office uses. The business park would provide 36 industrial buildings and 3 commercial buildings that would include commercial and office uses. The Project includes construction of approximately 2,050,000 square feet of new building space and related on- and offsite improvements. Implementation of the Project would include demolition of 36 existing single-family residences, industrial warehouse buildings, related improvements, and building remnants (e.g., foundations, etc.) from previous uses.

For this report, the term *Project footprint* is defined as the 115.74 acres of land proposed for direct impact by the Project, either temporarily or permanently. All impacts are assumed permanent, unless explicitly stated as temporary. In addition, off-site impacts totaling 10.73 acres are proposed for road and storm drain improvements. All off-site impacts will occur to existing developed areas consisting of paved roads or otherwise disturbed areas [Exhibit 3]. The term *Study area* and *Project site* refer to the proposed on-site Project area which consists of approximately 116 acres comprised of multiple parcels of land which includes 0.23 acre of areas avoided by the Project.

1.4 Relationship of the Project Site to the MSHCP

1.4.1 MSHCP Background

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

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

The Covered Species that are not yet adequately conserved have additional requirements in order for these species to ultimately be considered “adequately conserved”. A number of these species have survey requirements based on a project’s occurrence within a designated MSHCP survey area and/or based on the presence of suitable habitat. These include Narrow Endemic Plant Species (MSHCP *Volume I, Section 6.1.3*), as identified by the Narrow Endemic Plant Species Survey Areas (NEPSSA); Criteria Area Plant Species (MSHCP *Volume I, Section 6.3.2*) identified by the Criteria Area Plant Species Survey Areas (CAPSSA); animals species (burrowing owl, mammals, amphibians) identified by survey areas (MSHCP *Volume I, Section*

6.3.2); and species associated with riparian/riverine areas and vernal pool habitats, i.e., least Bell's vireo, southwestern willow flycatcher, western yellow-billed cuckoo, and three species of listed fairy shrimp (MSHCP *Volume I, Section 6.1.2*). An additional 28 species (MSHCP *Volume I, Table 9.3*) not yet adequately conserved have species-specific objectives in order for the species to become adequately conserved. However, these species do not have project-specific survey requirements.

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

1.4.2 Relationship of the Project Site to the MSHCP

The Project site is located within the Eastvale Area Plan of the MSHCP, but is not located within the MSHCP Criteria Area or the MSHCP Criteria Area Plant Species Survey Area (CAPSSA). The Project site is also not located within the MSHCP Mammal or Amphibian Survey Areas, MSHCP suitable habitat areas for the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), or Core and Linkage areas. However, a portion of the Project site easterly of Mountain Avenue is located within the MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA) and the MSHCP Burrowing Owl Survey Area [Exhibit 4 – MSHCP Overlay Map]. Specifically, this area occurs in NEPSSA 7. Pursuant to the MSHCP, the following target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): San Diego ambrosia (*Ambrosia pumila*), Brand's phacelia (*Phacelia stellaris*), and San Miguel savory (*Clinopodium chandleri*).

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

2.0 METHODOLOGY

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

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

The focus of the biological surveys was determined through initial site reconnaissance, a review of the CNDDDB (CDFW 2019), CNPS 8th edition online inventory (CNPS 2019), Natural Resource Conservation Service soil data (NRCS 2019), MSHCP species and habitat maps and sensitive soil maps (Dudek 2003), other pertinent literature, and knowledge of the region. Site-specific general surveys within the Project site were conducted on foot in the proposed development areas for each target plant or animal species identified below. Table 2-1 provides a summary list of survey dates, survey types and personnel.

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

Survey Type	2019 Survey Dates	Biologist(s)
General Biological Survey	3/14	DS, JS
Riparian/Riverine Areas Assessment	4/5	DS, LL
Vernal and/or Seasonal Pools Assessment	4/5	DS, LL
Federal and State Jurisdictional Waters Delineation	4/5	DS, LL
Focused Burrowing Owl Surveys	3/26, 4/5, 4/16, 5/2	DS
Federal and State Jurisdictional Waters Delineation	5/13	DS

DS = David Smith

JS = Jillian Stephens

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); and/or
- CNPS Rare Plant Inventory Rank 1A, 1B, 2A, 2B, 3, or 4.

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

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

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

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

2.1 Botanical Resources

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

2.1.1 Literature Search

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

- California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39) (CNPS 2019); and
- CNDDDB for the USGS 7.5' quadrangle(s): Corona North, California and surrounding quadrangles (CDFW 2019).

2.1.2 Vegetation Mapping

Vegetation communities within the Project site were mapped according to Holland (1986) when possible. The majority of the Project site does not meet the parameters of any natural vegetation classification system. Plant communities were mapped in the field directly onto a 200-scale (1"=200') aerial photograph

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

A literature search was conducted to obtain a list of special-status plants with the potential to occur within the Project site. The CNDDDB was initially consulted to determine well-known occurrences of plants and habitats of special concern in the region. Other sources used to

develop a list of target species for the survey program included the CNPS online inventory (2019) and the MSHCP (Dudek 2003).

For the MSHCP, the Project site is not located within the Criteria Area Plant Species Survey Area (CAPSSA). A portion of the Project site easterly of Mountain Avenue is located within the MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA). Pursuant to the MSHCP, the following target species must be evaluated through habitat assessments and focused surveys (if suitable habitat is present): San Diego ambrosia (*Ambrosia pumila*), Brand's phacelia (*Phacelia stellaris*), and San Miguel savory (*Clinopodium chandleri*).

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

2.1.4 Botanical Surveys

GLA biologists David Smith and Jillian Stephens visited the site on March 14, 2019 to conduct a general plant survey. The survey was conducted in accordance with accepted botanical survey guidelines (CDFG 2009, CNPS 2001, USFWS 2000). As applicable, the survey was conducted at an appropriate time based on precipitation and flowering periods. An aerial photograph, a soil map, and/or a topographic map were used to determine the community types and other physical features that may support sensitive and uncommon taxa or communities within the Project site. The survey was conducted by following meandering transects within target areas of suitable habitat. All plant species encountered during the field survey was identified and recorded following the above-referenced guidelines adopted by CNPS (2010) and CDFW by Nelson (1984). A complete list of the plant species observed is provided in Appendix A. Scientific nomenclature and common names used in this report follow Baldwin et al (2012), and Munz (1974).

2.2 Wildlife Resources

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

2.2.1 General Surveys

Birds

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

Mammals

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

Reptiles and Amphibians

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

2.2.2 Special-Status Animal Species Evaluated for the Project Site

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

2.2.3 Habitat Assessment for Special-Status Animal Species

GLA biologist(s) (David Smith and Jillian Stephens) conducted habitat assessments for special-status animal species on March 14, 2019. An aerial photograph, soil map and/or topographic map were used to determine the community types and other physical features that may support special-status and uncommon taxa within the Project site.

2.2.4 Focused Surveys for Special-Status Animals Species

Burrowing Owl

A small portion of the Project site easterly of Mountain Avenue is located within the MSHCP survey area for the burrowing owl (*Athene cunicularia*), with the majority of the site located outside of the survey area. As such, burrowing owl surveys were not required for the majority of

the Project site per the MSHCP requirements; however, since suitable habitat for the burrowing owl occurs elsewhere within the Project site, burrowing owl surveys were also performed in these areas for CEQA purposes.

GLA biologist David Smith conducted focused surveys for the burrowing owl for all suitable habitat areas within the Project site. Surveys were conducted in accordance with survey guidelines described in the 2006 MSHCP Burrowing Owl Survey Instructions. The guidelines stipulate that four focused survey visits be conducted on separate dates between March 1 and August 31. Within areas of suitable habitat, the MSHCP first requires a focused burrow survey to map all potentially suitable burrows. The focused burrow survey was conducted on March 14, 2019. Focused burrowing owl surveys were conducted on March 26, April 5, April 16, and May 2, 2019. The burrowing owl survey visits need to be conducted from one hour prior to sunrise to two hours after sunrise or two hours before sunset to one hour after sunset.

Both the burrow and owl surveys were conducted during weather that was conducive to observing owls outside their burrows and detecting burrowing owl sign and not during rain, high winds (> 20 mph), dense fog, or temperatures over 90 °F. Additionally, all work was performed more than 5 days after a rain event. Refer to Table 2-1 in Section 2.0 for survey condition details.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. The Project site contains less than 100 acres of suitable habitat; therefore, only one survey polygon was needed. Transects were spaced between 22 feet and 65 feet apart, adjusting for vegetation height and density, in order to provide adequate visual coverage of the survey areas. At the start of each transect, and at least every 320 feet along transects, the survey area was scanned for burrowing owls using binoculars. All suitable burrows were inspected for diagnostic owl sign (e.g., pellets, prey remains, whitewash, feathers, bones, and/or decoration) in order to identify potentially occupied burrows. Exhibit 6 provides locations of suitable burrows mapped during the transect surveys. Table 2-2 summarizes the burrowing owl survey visits. The results of the burrowing owl surveys are documented in Section 4.0 of this report.

Table 2-2. Summary of Burrowing Owl Surveys

Survey Date	Biologist(s)	Start/End Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover (%)
3/26/19	DS	0700/0930	48/55	0/1	Clear
4/5/19	DS	0700/0900	54/59	0/1	Clear
4/16/19	DS	0630/0900	54/57	0/1	50-90
5/2/19	DS	0600/0900	50/61	0/1	Clear

DS = David Smith

2.3 Jurisdictional Delineation

Prior to beginning the field delineation a 200-scale color aerial photograph and the previously cited USGS topographic map was examined to determine the locations of potential areas of Corps/Regional Board/CDFW jurisdiction. Suspected jurisdictional areas were field checked for

the presence of definable channels and/or wetland vegetation, soils and hydrology. Potential wetland habitats at the subject site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual¹ (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid West Supplement (Arid West Supplement)². While in the field the limits of Corps/Regional Board and CDFW jurisdiction were recorded using GPS technology and/or on copies of the aerial photography. Other data were recorded onto the appropriate datasheets.

2.4 MSHCP Riparian/Riverine Areas and Vernal Pools

Vegetation communities associated with riparian systems and vernal pools are depleted natural vegetation communities because 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 “riverine” drainages that are natural in origin but may lack riparian vegetation.

GLA surveyed the Project site for riparian/riverine areas and vernal pool/seasonal pool habitat, including features with the potential to support fairy shrimp. To assess for vernal/seasonal pools (including fairy shrimp habitat), GLA biologists evaluated the topography of the site, including whether the site contained depressional features/topography with the potential to become inundated; whether the site contained soils associated with vernal/seasonal pools; and whether the site supported plants that suggested areas of localized ponding. The site was evaluated on two occasions during the 2019 rainfall season, including on March 14 and March 26, 2019.

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.*

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.

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

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

3.0 REGULATORY SETTING

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

3.1 Endangered Species Acts

A. 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.

B. 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.

C. 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.

D. Take Authorizations Pursuant to the MSHCP

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

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

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

3.2 California Environmental Quality Act

A. 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.

B. 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)
- BCC Bird of Conservation Concern

State-Designated Special-Status Species

Some mammals and birds are protected by the state as Fully Protected (SFP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California SSC are designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's CNDDDB project. Informally listed taxa are not protected, but warrant consideration in the preparation of biotic assessments. For some species, the CNDDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

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

- SE State-listed as Endangered
- ST State-listed as Threatened
- SR State-listed as Rare
- SCE State Candidate for listing as Endangered
- SCT State Candidate for listing as Threatened
- SFP State Fully Protected

- SP State Protected
- SSC State Species of Special Concern

California Native Plant Society

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

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

CNPS Rank	Comments
Rank 1A – Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere	Thought to be extinct in California based on a lack of observation or detection for many years.
Rank 1B – Plants Rare, Threatened, or Endangered in California and Elsewhere	Species, which are generally rare throughout their range that are also judged to be vulnerable to other threats such as declining habitat.
Rank 2A – Plants presumed Extirpated in California, But Common Elsewhere	Species that are presumed extinct in California but more common outside of California
Rank 2B – Plants Rare, Threatened or Endangered in California, But More Common Elsewhere	Species that are rare in California but more common outside of California
Rank 3 – Plants About Which More Information Is Needed (A Review List)	Species that are thought to be rare or in decline but CNPS lacks the information needed to assign to the appropriate list. In most instances, the extent of surveys for these species is not sufficient to allow CNPS to accurately assess whether these species should be assigned to a specific rank. In addition, many of the Rank 3 species have associated taxonomic problems such that the validity of their current taxonomy is unclear.
Rank 4 – Plants of Limited Distribution (A Watch List)	Species that are currently thought to be limited in distribution or range whose vulnerability or susceptibility to threat is currently low. In some cases, as noted above for Rank 3 species, CNPS lacks survey data to accurately determine status in California. Many species have been placed on Rank 4 in previous editions of the "Inventory" and have been removed as survey data has indicated that the species are more common than previously thought. CNPS recommends that species currently included on this list should be monitored to ensure that future substantial declines are minimized.
Extension	Comments
.1 – Seriously endangered in California	Species with over 80% of occurrences threatened and/or have a high degree and immediacy of threat.

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

3.3 Jurisdictional Waters

A. Army Corps of Engineers

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

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

³ 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.]

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

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

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

- more than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the National List of Plant Species that Occur in Wetlands⁴);
- soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
- Whereas the 1987 Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with “problematic hydrophytic vegetation”, which require a minimum of 14 days of ponding to be considered a wetland.

On January 9, 2001 and June 5, 2007 the Supreme Court of the United States issued two rulings (*Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al [SWANCC]*, and *Rapanos v. United States and Carabell v. United States [Rapanos]*, respectively). The first case reiterated that “isolated” waters (those with no interstate commerce connection) are not subject to federal jurisdiction under Section 404 of the Clean Water Act. The second case determined (in a plurality vote) that a water must have a nexus with a “traditionally navigable water (an undefined term) to be subject to federal jurisdiction under Section 404 of the Clean Water Act. Applicants who believe they have waters that would be

⁴ Lichvar, R. W. 2013. *The National Wetland Plant List: 2013 wetland ratings*. Phytoneuron 2013-49: 1-241.

exempt from federal jurisdiction pursuant to these two rulings must go through a formal process with the Corps and EPA to obtain concurrence.

B. Regional Water Quality Control Board

Section 401 of the Clean Water Act 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.

When a project impacts non-federal waters in addition to federal waters, the Regional Board will issue a single 401 Certification for the entire project that includes water quality certification for all waters of the State impacted as part of the project.

C. California Department of Fish and Wildlife

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

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

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

4.0 RESULTS

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

Board, and streams (including riparian vegetation) and lakes subject to the jurisdiction of CDFW.

4.1 Existing Conditions

The Project site comprises multiple parcels of flat land that have varying land use types. The central portion of the Project site contains abandoned egg-farm infrastructure, an active trucking/distribution center, and undeveloped land that is regularly mowed. The outer portions of the Project site are occupied with residences, small-scale livestock areas, and fenced-off undeveloped land that is maintained via mowing. The Project site also includes segments of Second Street, Mountain Avenue, and First Street, which sub-divide the Project. Additionally, two drainage courses flow through the southern and southeastern portion of the Project site. Historical aerial imagery provides evidence that the entire site as well as surrounding land was used for agricultural purposes prior to the egg-farm construction in the mid-twentieth century. Surrounding residential development occurred shortly thereafter.

The Project site is generally devoid of natural vegetation communities, except for a small patch of riparian habitat, and is entirely surrounded by residential and commercial development. The Natural Resource Conservation Service (NRCS) identifies the following soil types (series) as occurring (currently or historically) within the Project site [Exhibit 10]: Buchenau loam, slightly saline-alkali; Fallbrook sandy loam; Fallbrook fine sandy loam; Hanford coarse sandy loam; and Placentia fine sandy loam.

4.2 Vegetation Mapping

The Project site supports the following vegetation/land use types: Disturbed, Developed, Ruderal, Ornamental, and Riparian. Table 4-1 provides a summary of the vegetation types and their corresponding acreage. Descriptions of each vegetation type follow the table. A Vegetation Map is attached as Exhibit 5. Photographs depicting the Project site and vegetation/land use types are shown in Exhibit 9.

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

VEGETATION/LAND USE TYPE	PROJECT SITE (acres)
Developed	47.44
Disturbed	19.92
Ruderal	47.01
Ornamental	1.58
Riparian	0.02
Total	115.97

Developed

The Project site supports approximately 47.4 acres of developed land. These areas consist of existing and utilized roads, residential lots, commercial buildings, and parking areas. While ornamental plantings are occasionally present within the developed areas, this land use type is generally devoid of natural vegetation.

Disturbed

The Project site supports approximately 19.9 acres of disturbed land. These areas consist of undeveloped areas that are routinely maintained and/or have been subject to ongoing disturbance in the form of stockpiling debris and unpaved vehicular access roads. Dominant plant species observed in the disturbed areas included primarily non-native species such as stinknet (*Oncosiphon piluliferum*), red-stemmed filaree (*Erodium cicutarium*), London rocket (*Sisymbrium irio*), summer mustard (*Hirschfeldia incana*), Mediterranean grass (*Schismus barbatus*), and foxtail barley (*Hordeum murinum*).

The central portion of the Project site contains abandoned egg-farm infrastructure which, although it was developed in the past, is also considered disturbed as it has become overtaken by the non-native species noted above.

Ruderal

The Project site supports approximately 47 acres of land that is dominated by ruderal species. These areas are routinely mowed/maintained. Dominant plant species observed include primarily non-native grasses and herbs such as cheeseweed (*Malva parviflora*), common fiddleneck (*Amsinckia intermedia*), ripgut grass (*Bromus diandrus*), foxtail barley (*Hordeum murinum*), and London rocket (*Sisymbrium irio*). Other species detected within the ruderal areas are documented in Appendix A (floral compendium).

Ornamental

The Project site supports approximately 1.6 acres of land that is covered with ornamental plantings such as Eucalyptus (*Eucalyptus* sp.) and Peruvian pepper (*Schinus molle*) trees which are associated with the developed areas. While ornamental trees are scattered throughout the Project site within the developed and disturbed areas, this ornamental vegetation cover exhibits a dense canopy with multiple individuals in close proximity.

Riparian

The Project site contains approximately 0.02 acre of riparian habitat which consists of approximately two mule fat (*Baccharis salicifolia*) individuals. This vegetation type occurs within an earthen, ephemeral drainage in the southern portion of the Project site and is surrounded by ruderal species that are regularly maintained, as described above.

4.3 Special-Status Vegetation Communities

The CNDDDB identifies the following ten special-status vegetation communities for the Corona North, California and surrounding quadrangle maps: (1) California Walnut Woodland, (2) Riversidian Alluvial Fan Sage Scrub, (3) Southern California Arroyo Chub/Santa Ana Sucker Stream, (4) Southern Coast Live Oak Riparian Forest, (5) Southern Cottonwood Willow Riparian Forest, (6) Southern Interior Cypress Forest, (7) Southern Riparian Forest, (8) Southern Riparian Scrub, (9) Southern Sycamore Alder Riparian Woodland, and (10) Southern Willow Scrub.

As noted above, the Project site contains approximately 0.02 acre of riparian habitat which is considered a special-status plant community under CEQA. The Project site does not contain any other special-status vegetation types, including those identified by the CNDDDB.

4.4 Special-Status Plants

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

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

Federal

FE – Federally Endangered

FT – Federally Threatened

State

SE – State Endangered

ST – State Threatened

CNPS Rare Plant Rank

Rank 1B – Plants rare, threatened, or endangered in California and elsewhere.

Rank 2 – Plants rare, threatened, or endangered in California, but more common elsewhere.

Rank 3 – Plants about which more information is needed.

Rank 4 – Plants of limited distribution (a watch list).

CNPS Threat Rank Extensions

.1 – Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)

.2 – Fairly endangered in California (20-80% occurrences threatened)

.3 – Not very endangered in California (<20% of occurrences threatened, or no current threats known)

MSHCP

MSHCP = No additional action necessary

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

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

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

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

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

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

Not Covered = Species not adequately covered under MSHCP

None = Species not considered under MSHCP

Occurrence

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

Species Name	Status	Habitat Requirements	Potential for Occurrence
Allen's pentachaeta <i>Pentachaeta aurea</i> ssp. <i>allenii</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Openings in coastal sage scrub, and valley and foothill grasslands.	Does not occur due to a lack of suitable habitat.
Brand's star phacelia <i>Phacelia stellaris</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP(b)	Coastal dunes and coastal sage scrub.	Does not occur due to a lack of suitable habitat.
Braunton's milk-vetch <i>Astragalus brauntonii</i>	Federal: FE State: None CNPS: Rank 1B.1 MSHCP: Not covered	Closed-cone coniferous forest, chaparral, coastal sage scrub, valley and foothill grassland. Usually carbonate soils. Recent burn or disturbed areas.	Does not occur due to a lack of suitable habitat.
Brewer's calandrinia <i>Calandrinia breweri</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Sandy or loamy soils in disturbed sites and burns. Chaparral, coastal scrub.	Does not occur due to a lack of suitable habitat.
California beardtongue <i>Penstemon californicus</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP	Sandy soils in chaparral, lower montane coniferous forest, and pinyon and juniper woodland.	Does not occur due to a lack of suitable habitat.
California muhly <i>Muhlenbergia californica</i>	Federal: None State: None CNPS: Rank 4.3 MSHCP: MSHCP (e)	Mesic habitats, including seeps and streambanks, in chaparral, coastal scrub, lower montane coniferous forest, and meadows.	Does not occur due to a lack of suitable habitat.
California saw-grass <i>Cladium californicum</i>	Federal: None State: None CNPS: Rank 2B.2 MSHCP: None	Meadows and seeps, and alkaline or freshwater marshes and swamps.	Does not occur due to a lack of suitable habitat.
Catalina mariposa lily <i>Calochortus catalinae</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland.	Does not occur due to a lack of suitable habitat.
Chaparral nolina <i>Nolina cismontana</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: None	Chaparral, coastal sage scrub. Occurring on sandstone or gabbro substrates.	Does not occur due to a lack of suitable habitat.
Chaparral ragwort <i>Senecio aphanactis</i>	Federal: None State: None CNPS: Rank 2B.2 MSHCP: None	Chaparral, cismontane woodland, coastal scrub. Sometimes associated with alkaline soils.	Does not occur due to a lack of suitable habitat.
Chaparral sand verbena <i>Abronia villosa</i> var. <i>aurita</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Sandy soils in chaparral, coastal sage scrub.	Does not occur due to a lack of suitable habitat.

Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP(d)	Playas, vernal pools, marshes and swamps (coastal salt).	Does not occur due to a lack of suitable habitat.
Coulter's matilija poppy <i>Romneya coulteri</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Often in burns in chaparral and coastal scrub.	Does not occur due to a lack of suitable habitat.
Coulter's saltbush <i>Atriplex coulteri</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: Not covered	Coastal bluff scrub, coastal dunes, coastal sage scrub, valley and foothill grassland. Occurring on alkaline or clay soils.	Does not occur due to a lack of suitable habitat.
Fish's milkwort <i>Polygala cornuta</i> var. <i>fishae</i>	Federal: None State: None CNPS: Rank 4.3 MSHCP: MSHCP	Chaparral, cismontane woodland, riparian woodland.	Does not occur due to a lack of suitable habitat.
Heart-leaved pitcher sage <i>Lepechinia cardiophylla</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP(d)	Closed-cone coniferous forest, chaparral, and cismontane woodland.	Does not occur due to a lack of suitable habitat.
Intermediate mariposa lily <i>Calochortus weedii</i> var. <i>intermedius</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP	Rocky soils in chaparral, coastal sage scrub, valley and foothill grassland.	Does not occur due to a lack of suitable habitat.
Intermediate monardella <i>Monardella hypoleuca</i> ssp. <i>intermedia</i>	Federal: None State: None CNPS: Rank 1B.3 MSHCP: None	Usually in the understory of chaparral, cismontane woodland, and lower montane coniferous forest (sometimes)	Does not occur due to a lack of suitable habitat.
Jokerst's monardella <i>Monardella australis</i> ssp. <i>jokerstii</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Steep scree or talus slopes between breccia, secondary alluvial benches along drainages and washes. Chaparral, lower montane coniferous forest.	Does not occur due to a lack of suitable habitat.
Lewis' evening-primrose <i>Camissoniopsis lewisii</i>	Federal: None State: None CNPS: Rank 3 MSHCP: None	Sandy or clay soils in coastal bluff scrub, cismontane woodland, coastal dunes, coastal scrub, and valley and foothill grassland.	Does not occur due to a lack of suitable habitat.
Long-spined spineflower <i>Chorizanthe</i> <i>polygonoides</i> var. <i>longispina</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands	Does not occur due to a lack of suitable habitat.
Lucky morning-glory <i>Calystegia felix</i>	Federal: None State: None CNPS: Rank 3.1 MSHCP: None	Historically associated with wetland and marshy places, but possibly in drier situations as well. Possibly	Does not occur due to a lack of suitable habitat.

		silty loam and alkaline soils. Meadows and seeps (sometimes alkaline), riparian scrub (alluvial).	
Malibu baccharis <i>Baccharis malibuensis</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Chaparral, cismontane woodland, coastal sage scrub.	Does not occur due to a lack of suitable habitat.
Many-stemmed dudleya <i>Dudleya multicaulis</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP(b)	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	Does not occur due to a lack of suitable habitat.
Marsh sandwort <i>Arenaria paludicola</i>	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: None	Bogs and fens, freshwater marshes and swamps.	Does not occur due to a lack of suitable habitat.
Mesa horkelia <i>Horkelia 23uneate</i> var. <i>puberula</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Sandy or gravelly soils in chaparral (maritime), cismontane woodland, and coastal scrub.	Does not occur due to a lack of suitable habitat.
Munz's onion <i>Allium munzii</i>	Federal: FE State: ST CNPS: Rank 1B.1 MSHCP: MSHCP(b)	Clay soils in chaparral, coastal sage scrub, and valley and foothill grasslands	Does not occur due to a lack of suitable habitat.
Nevin's barberry <i>Berberis nevinii</i>	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: MSHCP (d)	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub.	Does not occur due to a lack of suitable habitat.
Ocellated humboldt lily <i>Lilium humboldtii</i> ssp. <i>ocellatum</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP (f)	Chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, riparian woodland. Occurring in openings.	Does not occur due to a lack of suitable habitat.
Palmer's grapplinghook <i>Harpagonella palmeri</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Chaparral, coastal sage scrub, valley and foothill grassland. Occurring in clay soils.	Does not occur due to a lack of suitable habitat.
Palomar monkeyflower <i>Erythranthe (Mimulus) diffusa</i>	Federal: None State: None CNPS: Rank 4.3 MSHCP: MSHCP	Sandy or gravelly soils in chaparral, lower montane coniferous forest.	Does not occur due to a lack of suitable habitat.
Paniculate tarplant <i>Deinandra paniculata</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Usually in vernal mesic, sometimes sandy soils in coastal scrub, valley and foothill grassland, and vernal pools.	Does not occur due to a lack of suitable habitat.
Parish's bush-mallow <i>Malacothamnus parishii</i>	Federal: None State: None CNPS: Rank 1A MSHCP: None	Chaparral and coastal scrub	Does not occur due to a lack of suitable habitat.

Parish's desert-thorn <i>Lycium parishii</i>	Federal: None State: None CNPS: Rank 2B.3 MSHCP: Not covered	Coastal sage scrub, Sonoran desert scrub	Does not occur due to a lack of suitable habitat.
Parry's spineflower <i>Chorizanthe parryi</i> var. <i>parryi</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	Does not occur due to a lack of suitable habitat.
Payson's jewelflower <i>Caulanthus simulans</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Sandy or granitic soils in chaparral and coastal scrub.	Does not occur due to a lack of suitable habitat.
Peninsular spineflower <i>Chorizanthe leptotheca</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Alluvial fan, granitic. Chaparral, coastal scrub, lower montane coniferous forest.	Does not occur due to a lack of suitable habitat.
Plummer's mariposa lily <i>Calochortus plummerae</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Granitic, rock soils within chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, valley and foothill grassland.	Does not occur due to a lack of suitable habitat.
Prairie wedge grass <i>Sphenopholis obtusata</i>	Federal: None State: None CNPS: Rank 2B.2 MSHCP: Not covered	Mesic soils in cismontane woodland, meadows and seeps.	Does not occur due to a lack of suitable habitat.
Pringle's monardella <i>Monardella pringlei</i>	Federal: None State: None CNPS: Rank 1A MSHCP: Not covered	Sandy soils in coastal sage scrub.	Does not occur due to a lack of suitable habitat.
Prostrate vernal pool navarretia <i>Navarretia prostrata</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: MSHCP(d)	Coastal sage scrub, valley and foothill grassland (alkaline), vernal pools. Occurring in mesic soils.	Does not occur due to a lack of suitable habitat.
Rigid fringepod <i>Thysanocarpus rigidus</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: None	Dry rocky slopes in pinyon and juniper woodland.	Does not occur due to a lack of suitable habitat.
Robinson's pepper grass <i>Lepidium virginicum</i> var. <i>robinsonii</i>	Federal: None State: None CNPS: Rank 4.3 MSHCP: Not covered	Chaparral, coastal sage scrub	Does not occur due to a lack of suitable habitat.
Salt marsh bird's-beak <i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	Federal: FE State: SE CNPS: Rank 1B.2 MSHCP: None	Coastal dune, coastal salt marshes and swamps.	Does not occur due to a lack of suitable habitat.

Salt Spring checkerbloom <i>Sidalcea neomexicana</i>	Federal: None State: None CNPS: Rank 2B.2 MSHCP: Not covered	Mesic, alkaline soils in chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, and playas.	Does not occur due to a lack of suitable habitat.
San Bernardino aster <i>Symphotrichum defoliatum</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: None	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic).	Does not occur due to a lack of suitable habitat.
San Diego ambrosia <i>Ambrosia pumila</i>	Federal: FE State: None CNPS: Rank 1B.1 MSHCP: MSHCP(b)	Chaparral, coastal sage scrub, valley and foothill grassland, vernal pools. Often in disturbed habitats.	Does not occur due to a lack of suitable habitat.
San Fernando Valley spineflower <i>Chorizanthe parryi</i> var. <i>fernandina</i>	Federal: Candidate State: SE CNPS: Rank 1B.1 MSHCP: None	Coastal sage scrub, occurring on sandy soils.	Does not occur due to a lack of suitable habitat.
San Miguel savory <i>Clinopodium chandleri</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: MSHCP(b)	Rocky, gabbroic, or metavolcanic soils in chaparral, cismontane woodland, coastal sage scrub, riparian woodland, valley and foothill grassland.	Does not occur due to a lack of suitable habitat.
Santa Ana River woolly star <i>Eriastrum densifolium</i> ssp. <i>sanctorum</i>	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: MSHCP	Alluvial fan sage scrub, chaparral. Occurring on sandy or rocky soils.	Does not occur due to a lack of suitable habitat.
Santiago Peak phacelia <i>Phacelia keckii</i>	Federal: None State: None CNPS: Rank 1B.3 MSHCP: None	Closed-cone coniferous forest, chaparral	Does not occur due to a lack of suitable habitat.
Slender-horned spineflower <i>Dodecahema leptoceras</i>	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP: MSHCP(b)	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	Does not occur due to a lack of suitable habitat.
Small-flowered microseris <i>Microseris douglasii</i> ssp. <i>platycarpa</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Cismontane woodland, coastal sage scrub, valley and foothill grassland, vernal pools. Occurring on clay soils.	Does not occur due to a lack of suitable habitat.
Small-flowered morning-glory <i>Convolvulus simulans</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: MSHCP	Chaparral (openings), coastal sage scrub, valley and foothill grassland. Occurring on clay soils and serpentinite seeps.	Does not occur due to a lack of suitable habitat.
Smooth tarplant <i>Centromadia pungens</i> ssp. <i>laevis</i>	Federal: None State: None CNPS: Rank 1B.1	Alkaline soils in chenopod scrub, meadows and seeps, playas, riparian woodland, valley and foothill	Does not occur due to a lack of suitable habitat.

	MSHCP: MSHCP(d)	grasslands, disturbed habitats.	
Southern California black walnut <i>Juglans californica</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP: None	Chaparral, cismontane woodland, coastal sage scrub, alluvial surfaces.	Confirmed absent. Does not occur due to a lack of suitable habitat.
Tecate cypress <i>Hesperocyparis forbesii</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP: None	Closed-cone coniferous forest, chaparral.	Confirmed absent. Does not occur due to a lack of suitable habitat.
Vernal barley <i>Hordeum intercedens</i>	Federal: None State: None CNPS: Rank 3.2 MSHCP: MSHCP	Coastal dunes, coastal sage scrub, valley and foothill grassland (saline flats and depressions), vernal pools.	Does not occur due to a lack of suitable habitat.
White rabbit-tobacco <i>Pseudognaphalium leucocephalum</i>	Federal: None State: None CNPS: Rank 2B.2 MSHCP: None	Coastal sage scrub and chaparral	Does not occur due to a lack of suitable habitat.
White-bracted spineflower <i>Chorizanthe xanti</i> var. <i>leucotheca</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP: Not covered	Sandy or gravelly soils in Mojavean desert scrub and pinyon and juniper woodland.	Does not occur due to a lack of suitable habitat.
Woolly chaparral-pea <i>Pickeringia montana</i> var. <i>tomentosa</i>	Federal: None State: None CNPS: Rank 4.3 MSHCP: None	Gabbroic, granitic, and clay soils in chaparral.	Does not occur due to a lack of suitable habitat.

4.5 Special-Status Animals

No special-status animals were detected at the Project site. Several special-status species have a low to moderate potential to occur on site including burrowing owl (*Athene cunicularia*), Stephens' kangaroo rat (*Dipodomys stephensi*), and western yellow bat (*Lasiurus xanthinus*). In addition, due to the proximity of the site to the Prado Flood Control Basin and Regional Park and the nature of birds to travel long distances for foraging, several special-status birds have low potential to forage over the undeveloped areas on site; however, the Project site does not provide suitable breeding habitat due to its disturbed setting, lack of natural vegetation, and urban surroundings. These species include golden eagle (*Aquila chrysaetos*), loggerhead shrike (*Lanius ludovicianus*), Swainson's hawk (*Buteo swainsoni*), and white-tailed kite (*Elanus leucurus*).

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

Following the table, detailed discussions of those species that require further biological explanation in relation to the Project site are provided.

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

Federal

FE – Federally Endangered
 FT – Federally Threatened
 FPT – Federally Proposed Threatened
 FC – Federal Candidate
 BCC – Bird of Conservation Concern

State

SE – State Endangered
 ST – State Threatened
 SCE – State Candidate for listing as Endangered
 CFP – California Fully-Protected Species
 SSC – Species of Special Concern
 WL – Watch List

Western Bat Working Group (WBWG)

H – High Priority
 LM – Low-Medium Priority
 M – Medium Priority
 MH – Medium-High Priority

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
 Not Covered = Species not adequately covered under MSHCP
 None = Species not considered under MSHCP

Occurrence

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

Species Name	Status	Habitat Requirements	Potential for Occurrence
Invertebrates			
Crotch bumble bee <i>Bombus crotchii</i>	Federal: None State: SCE MSHCP: None	Relatively warm and dry sites, including the inner Coast Range of California and margins of the Mojave Desert.	Does not occur onsite due to a lack of suitable habitat as a result of historical agricultural disturbance.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Delhi-sands flower-loving fly <i>Raphiomidas terminatus abdominalis</i>	Federal: FE State: None MSHCP: MSHCP	Fine, sandy soils, often associated with wholly or partially consolidated dunes referred to as the “Delhi” series. Vegetation consists of a sparse cover, including California buckwheat, California croton, deerweed, and evening primrose.	Does not occur onsite due to a lack of Delhi-sands soil type within the Project area.
San Diego fairy shrimp <i>Branchinecta sandiegonensis</i>	Federal: FE State: None MSHCP: None	Seasonal vernal pools	Does not occur onsite due to a lack of suitable habitat.
Fish			
Arroyo chub <i>Gila orcuttii</i>	Federal: None State: None MSHCP: MSHCP	Headwaters, creeks, and small to medium rivers, often intermittent streams	Does not occur onsite due to a lack of suitable habitat.
Santa Ana speckled dace <i>Rhinichthys osculus</i> ssp. 3	Federal: None State: SSC MSHCP: Not covered	Occurs in the headwaters of the Santa Ana and San Gabriel Rivers. May be extirpated from the Los Angeles River system. Requires permanent flowing streams with summer water temperatures of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	Does not occur onsite due to a lack of suitable habitat.
Santa Ana sucker <i>Catostomus santaanae</i>	Federal: FT State: None MSHCP: MSHCP	Small, shallow streams, less than 7 meters in width, with currents ranging from swift in the canyons to sluggish in the bottom lands. Preferred substrates are generally coarse and consist of gravel, rubble, and boulders with growths of filamentous algae, but occasionally they are found on sand/mud substrates.	Does not occur onsite due to a lack of suitable habitat.
Southern steelhead - southern California DPS <i>Oncorhynchus mykiss irideus</i>	Federal: FE State: None MSHCP: None	Clear, swift moving streams with gravel for spawning. Federal listing refers to populations from Santa Maria river south to southern extent of range (San Mateo Creek in San Diego county.)	Does not occur onsite due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Amphibians			
Arroyo toad <i>Anaxyrus californicus</i>	Federal: FE State: SSC MSHCP: MSHCP(c)	Breed, forage, and/or aestivate in aquatic habitats, riparian, coastal sage scrub, oak, and chaparral habitats. Breeding pools must be open and shallow with minimal current, and with a sand or pea gravel substrate overlain with sand or flocculent silt. Adjacent banks with sandy or gravelly terraces and very little herbaceous cover for adult and juvenile foraging areas, within a moderate riparian canopy of cottonwood, willow, or oak.	Does not occur onsite due to a lack of suitable habitat.
Coast Range newt <i>Taricha torosa</i>	Federal: None State: None MSHCP: MSHCP	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Does not occur onsite due to a lack of suitable habitat.
Northern leopard frog <i>Lithobates pipiens</i>	Federal: None State: SSC MSHCP: None	Inhabits grassland, wet meadows, potholes, forests, woodland, brushlands, springs, canals, bogs, marshes, reservoirs. Generally prefers permanent water with abundant aquatic vegetation.	Does not occur onsite due to a lack of suitable habitat.
Western spadefoot <i>Spea hammondi</i>	Federal: None State: SSC MSHCP: MSHCP	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Does not occur onsite due to a lack of suitable habitat.
Reptiles			
Coast horned lizard <i>Phrynosoma blainvillii</i>	Federal: None State: SSC MSHCP: MSHCP	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	Does not occur onsite due to a lack of suitable habitat.
California glossy snake <i>Arizona elegans occidentalis</i>	Federal: None State: None MSHCP: Not Covered	Occurs interior coast range and southwestern desert regions	Does not occur onsite due to a lack of suitable habitat.
California mountain kingsnake (San Diego population) <i>Lampropeltis zonata (pulchra)</i>	Federal: None State: WL MSHCP: MSHCP(f)	A habitat generalist, found in diverse habitats including coniferous forest, oak-pine woodlands, riparian woodland, chaparral, manzanita, and coastal sage scrub.	Does not occur onsite due to a lack of suitable habitat.
Coast patch-nosed snake <i>Salvadora hexalepis virgultea</i>	Federal: None State: SSC MSHCP: Not covered	Occurs in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas.	Does not occur onsite due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Coastal whiptail <i>Aspidoscelis tigris stejnegeri</i> (<i>multiscutatus</i>)	Federal: None State: SSC MSHCP: MSHCP	Open, often rocky areas with little vegetation, or sunny microhabitats within shrub or grassland associations.	Does not occur onsite due to a lack of suitable habitat.
Orangethroat whiptail <i>Aspidoscelis hyperythra</i>	Federal: None State: WL MSHCP: MSHCP	Coastal sage scrub, chaparral, non-native grassland, oak woodland, and juniper woodland.	Does not occur onsite due to a lack of suitable habitat.
Red-diamond rattlesnake <i>Crotalus ruber</i>	Federal: None State: SSC MSHCP: MSHCP	Habitats with heavy brush and rock outcrops, including coastal sage scrub and chaparral.	Does not occur onsite due to a lack of suitable habitat.
San Diego banded gecko <i>Coleonyx variegatus abbotti</i>	Federal: None State: SSC MSHCP: MSHCP	Primarily a desert species, but also occurs in cismontane chaparral, desert scrub, and open sand dunes.	Does not occur onsite due to a lack of suitable habitat.
Southern California legless lizard <i>Anniella stebbinsi</i>	Federal: None State: SSC MSHCP: Not Covered	Broadleaved upland forest, chaparral, coastal dunes, coastal scrub; found in a broader range of habitats than any of the other species in the genus. Often locally abundant, specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans	Does not occur onsite due to a lack of suitable habitat.
Two-striped garter snake <i>Thamnophis hammondi</i>	Federal: None State: SSC MSHCP: Not Covered	Aquatic snake typically associated with wetland habitats such as streams, creeks, and pools.	Does not occur onsite due to a lack of suitable habitat.
Western pond turtle <i>Emys marmorata</i>	Federal: None State: SSC MSHCP: MSHCP	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons. Abundant basking sites and cover necessary, including logs, rocks, submerged vegetation, and undercut banks.	Does not occur onsite due to a lack of suitable habitat.
Birds			
Bald eagle (nesting & wintering) <i>Haliaeetus leucocephalus</i>	Federal: Delisted State: SE, FP MSHCP: MSHCP	Primarily in or near seacoasts, rivers, swamps, and large lakes. Perching sites consist of large trees or snags with heavy limbs or broken tops.	Does not occur onsite due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Burrowing owl <i>Athene cunicularia</i>	Federal: None State: SSC MSHCP: MSHCP(c)	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and underpasses.	The burrowing owl was confirmed absent during focused surveys, but the owl has a low to moderate potential to occur onsite.
California black rail <i>Laterallus jamaicensis coturniculus</i>	Federal: BCC State: ST, CFP MSHCP: Not covered	Nests in high portions of salt marshes, shallow freshwater marshes, wet meadows, and flooded grassy vegetation.	Does not occur onsite due to a lack of suitable habitat.
Coastal cactus wren (San Diego & Orange County only) <i>Campylorhynchus brunneicapillus sandiegensis</i>	Federal: BCC State: SSC MSHCP: MSHCP	Occurs almost exclusively in cactus (cholla and prickly pear) dominated coastal sage scrub.	Does not occur onsite due to a lack of suitable habitat.
Coastal California gnatcatcher <i>Poliophtila californica californica</i>	Federal: FT State: SSC MSHCP: MSHCP	Low elevation coastal sage scrub and coastal bluff scrub.	Does not occur onsite due to a lack of suitable habitat.
Golden eagle (nesting and wintering) <i>Aquila chrysaetos</i>	Federal: None State: CFP MSHCP: MSHCP	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Low potential to occur as part of a larger wintering area. Suitable breeding habitat does not occur onsite.
Grasshopper sparrow (nesting) <i>Ammodramus savannarum</i>	Federal: None State: SSC MSHCP: MSHCP(e)	Open grassland and prairies with patches of bare ground.	Does not occur onsite due to a lack of suitable habitat.
Least Bell's vireo <i>Vireo bellii pusillus</i>	Federal: FE State: SE MSHCP: MSHCP(a)	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Does not occur onsite due to a lack of suitable habitat.
Loggerhead shrike (nesting) <i>Lanius ludovicianus</i>	Federal: BCC State: SSC MSHCP: MSHCP	Forages over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs.	Low potential to occur onsite for foraging.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Long-eared owl (nesting) <i>Asio otus</i>	Federal: None State: SSC MSHCP: Not covered	Riparian habitats are required by the long-eared owl, but it also uses live-oak thickets and other dense stands of trees.	Does not occur onsite due to a lack of suitable habitat.
Southwestern willow flycatcher (nesting) <i>Empidonax traillii extimus</i>	Federal: FE State: SE MSHCP: MSHCP(a)	Riparian woodlands along streams and rivers with mature dense thickets of trees and shrubs.	Does not occur onsite due to a lack of suitable habitat.
Swainson's hawk (nesting) <i>Buteo swainsoni</i>	Federal: None State: ST MSHCP: MSHCP	Occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys for hunting and uses perches.	Low potential to occur onsite for foraging.
Tricolored blackbird (nesting colony) <i>Agelaius tricolor</i>	Federal: BCC State: CE, SSC MSHCP: MSHCP	Breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or agricultural cropland.	Does not occur onsite due to a lack of suitable habitat.
Western yellow-billed cuckoo (nesting) <i>Coccyzus americanus occidentalis</i>	Federal: FT, BCC State: SE MSHCP: MSHCP(a)	Dense, wide riparian woodlands with well-developed understories.	Does not occur onsite due to a lack of suitable habitat.
White-tailed kite (nesting) <i>Elanus leucurus</i>	Federal: None State: CFP MSHCP: MSHCP	Winter foraging occurs in wet meadows, marshes, ponds, lakes, rivers, and agricultural fields. Requires extensive marshes for nesting.	Low potential to occur onsite for foraging.
Yellow rail <i>Coturnicops noveboracensis</i>	Federal: BCC State: SSC MSHCP: None	Shallow marshes, and wet meadows; in winter, drier freshwater and brackish marshes, as well as dense, deep grass, and rice fields.	Does not occur onsite due to a lack of suitable habitat.
Yellow warbler (nesting) <i>Setophaga petechia</i>	Federal: BCC State: SSC MSHCP: MSHCP	Breed in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, forages in woodland, forest, and shrub habitats.	Does not occur onsite due to a lack of suitable habitat.
Yellow-breasted chat (nesting) <i>Icteria virens</i>	Federal: None State: SSC MSHCP: MSHCP	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Does not occur onsite due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Mammals			
Big free-tailed bat <i>Nyctinomops macrotis</i>	Federal: None State: SSC WBWG: MH MSHCP: Not covered	Roost mainly in crevices and rocks in cliff situations; also utilize buildings, caves, and tree cavities.	Does not occur onsite due to a lack of suitable habitat.
Los Angeles pocket mouse <i>Perognathus longimembris brevinasus</i>	Federal: None State: SSC MSHCP: MSHCP(c)	Fine, sandy soils in coastal sage scrub and grasslands.	Does not occur onsite due to a lack of suitable habitat.
Northwestern San Diego pocket mouse <i>Chaetodipus fallax fallax</i>	Federal: None State: SSC MSHCP: MSHCP	Coastal sage scrub, sage scrub/grassland ecotones, and chaparral.	Does not occur onsite due to a lack of suitable habitat.
Pallid bat <i>Antrozous pallidus</i>	Federal: None State: SSC WBWG: H MSHCP: Not covered	Deserts, grasslands, shrublands, woodlands, and forests. Most common in open, dry habitats with rocky areas for roosting.	Does not occur onsite due to a lack of suitable habitat.
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	Federal: None State: SSC WBWG: M MSHCP: Not covered	Rocky areas with high cliffs in pine-juniper woodlands, desert scrub, palm oasis, desert wash, and desert riparian.	Does not occur onsite due to a lack of suitable habitat.
San Bernardino kangaroo rat <i>Dipodomys merriami parvus</i>	Federal: FE State: SSC MSHCP: MSHCP(c)	Typically found in Riversidean alluvial fan sage scrub and sandy loam soils, alluvial fans and floodplains, and along washes with nearby sage scrub.	Does not occur onsite due to a lack of suitable habitat.
San Diego black-tailed jackrabbit <i>Lepus californicus bennettii</i>	Federal: None State: SSC MSHCP: MSHCP	Occupies a variety of habitats, but is most common among shortgrass habitats. Also occurs in sage scrub, but needs open habitats.	Does not occur onsite due to a lack of open habitat.
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	Federal: None State: SSC MSHCP: MSHCP	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Does not occur onsite due to a lack of suitable habitat.
Stephens' kangaroo rat <i>Dipodomys stephensi</i>	Federal: FE State: ST SKR HCP: Covered	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Low potential to occur onsite.
Western mastiff bat <i>Eumops perotis californicus</i>	Federal: None State: SSC WBWG: H MSHCP: Not Covered	Occurs in many open, semi-arid to arid habitats, including conifer and deciduous woodlands, coastal scrub, grasslands, and chaparral. Roosts in crevices in cliff faces, high buildings, trees, and tunnels.	Does not occur onsite due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
Western yellow bat <i>Lasiurus xanthinus</i>	Federal: None State: SSC WBWG: H MSHCP: Not Covered	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Roosts in trees, particularly palms. Forages over water and among trees.	Low potential to occur onsite.
Yuma myotis <i>Myotis yumanensis</i>	Federal: None State: None WBWG: LM MSHCP: None	Optimal habitats are open forests and woodlands with sources of water over which to feed. Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	Does not occur onsite due to a lack of suitable habitat.

As noted above, the following discussions are provided for those species where further explanation in relation to the Project site is required.

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

Mammals

Stephens' Kangaroo Rat (*Dipodomys stephensi*) – Stephens' kangaroo rat (SKR) is a federally Endangered species and a state Threatened species.

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

Although much of the Project site is developed/disturbed and no burrows or evidence of occupation was detected in the ruderal or disturbed areas, the Project site contains potentially suitable habitat for the SKR and therefore, the SKR may be present. The Project site is located within the Fee Assessment Area of the SKR HCP. Within the Fee Area, suitable habitat is assumed to be occupied and focused surveys are not required. Take authorization for SKR is covered through the HCP with the payment of the SKR Fee.

Western Yellow Bat (*Lasiurus xanthinus*) – Western yellow bat is designated as a CDFW Species of Special Concern and WBWG high priority. This species preferentially roosts in trees, generally palms in the southern U.S.

The Project site contains large ornamental trees, primarily Eucalyptus species, that provide low potential roosting habitat for the Western yellow bat. Ornamental palms, the preferential roosting habitat for the western yellow bat, occur frequently in association with the residential and commercial developments surrounding the Project site. As such, this species has very low potential to roost on site and would more likely occur on site for foraging.

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

Burrowing Owl (*Athene cunicularia*) - The burrowing owl is designated as a CDFW Species of Special Concern. The burrowing owl is a covered species not adequately conserved under the MSHCP, which means that projects located within the burrowing owl survey area may have to evaluate avoidance measures if burrowing owls are present. Per the MSHCP, burrowing owl surveys were not needed for the majority of the Project site; however, since suitable habitat occurs throughout the site in undeveloped areas, burrowing owl surveys were performed to evaluate impacts under the CEQA.

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

GLA biologists did not observe burrowing owls, or evidence of burrowing owls (e.g., cast pellets, preened feathers, or whitewash clustered at a burrow) during the focused burrowing owl surveys conducted in March, April, and May of 2019.

4.6 Raptor Use

The Project site provides suitable foraging and/or 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 special-status raptors that would be expected to forage and nest within western Riverside are fully covered species under the MSHCP with the MSHCP providing the necessary conservation of both foraging and nesting habitats.

It is important to understand that the MSHCP does not provide MBTA and Fish and Game Code take for raptors covered under the Plan.

Appendix B (faunal compendium) provides a list of the hawks and falcons detected over the course of the field studies. These species were Cooper's hawk (*Accipiter cooperii*), red-tailed hawk (*Buteo jamaicensis*), and American kestrel (*Falco sparverius*). The Project site provides potential nesting habitat (e.g., mature trees, shrubs) for all of these species. The Project site also provides foraging habitat for all of these species, as well as several special-status raptor species as mentioned in Section 4.5, in the form of insects, spiders, lizards, snakes, small mammals, and other birds.

4.7 Nesting Birds

The Project site contains trees, shrubs, and ground cover that provide suitable habitat for nesting native birds. Impacts to active nests is prohibited under the MBTA and California Fish and Game Code.⁵

4.8 Wildlife Migration/Nurseries

The Project study area lacks migratory wildlife corridors, as it does not contain the structural topography and vegetative cover that facilitate regional wildlife movement, is subject to a high level of ongoing human disturbance, and much of the Project study area is fenced or consists of active public roadways, which act as inhibitors to wildlife movement.

The Project study area may represent a nursery site if western red bat, western yellow bat, or other non-special-status lasiurine bat species are utilizing the large ornamental trees within the Project study area as maternity roosts in a colonial or semi-colonial nature.

4.9 Critical Habitat

There is no federally designated Critical Habitat mapped within or adjacent to the Project study area.

4.10 Jurisdictional Delineation

Two earthen ephemeral drainage features occur within the Project site. Drainage 1 originates onsite while Drainage 2 originates offsite and flows through the Project site from the eastern Project boundary. Upon leaving the site, flows from the confluence of Drainages 1 and 2 continue southwesterly for approximately 0.75 miles and enter the Santa Ana River briefly before discharging into the Prado Flood Control Basin.

⁵ The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R.21). In addition, Sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

Potential Corps and Regional Board jurisdiction at the proposed Project site totals approximately 0.71 acre, none of which consists of jurisdictional wetlands. Potential CDFW jurisdiction at the proposed Project site totals approximately 1.03 acres, of which 0.02 acre consists of riparian habitat. Table 4-3 below and Exhibits 7A/7B summarize the areas of potential Corps, Regional Board, and CDFW jurisdiction associated with the proposed Project.

Table 4-3: Potential Corps/Regional Board and CDFW Jurisdiction

Drainage	Corps/Regional Board			CDFW			Linear Feet
	Non-Wetland Waters (acres)	Wetland (acres)	Total (acres)	Non-Riparian Streambed	Riparian Streambed	Total (acres)	
1	0.08	0	0.08	0.14	0	0.14	1,098
2	0.63	0	0.63	0.87	0.02	0.89	1,894
Total	0.71	0	0.71	1.01	0.02	1.03	2,992

4.11 MSHCP Riparian/Riverine Areas and Vernal Pools

The Study Area contains approximately 1.03 acres of MSHCP riparian/riverine areas, including 1.01 acres of unvegetated riverine areas, and 0.02 acre of riparian habitat.

No vernal pools are present within the Study area. The site was evaluated thoroughly following periods of substantial rainfall in 2019. The site does not contain any natural depressions that would inundate long enough to support vernal pools. Furthermore, the soils within this area are categorized as fine sandy loam soils, which are generally not associated with vernal pools. The northeastern corner of the Project site, near the corner of Mountain Avenue and Second Street, consists of a truck parking area that is regularly disturbed and contains a roadside depression that became inundated but due to the repeated disturbance is not expected to support fairy shrimp. In addition, the depression does not support vernal pool indicator plants or other wetland plant species that would classify the depression as a vernal pool.

5.0 IMPACT ANALYSIS

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

Indirect impacts pertain to those impacts that result in a change to the physical environment, but which is not immediately related to a project. Indirect (or secondary) impacts are those that are reasonably foreseeable and caused by a project, but occur at a different time or place. Indirect impacts can occur at the urban/wildland interface of projects, to biological resources located

downstream from projects, and other off-site areas where the effects of the project may be experienced by plants and wildlife. Examples of indirect impacts include the effects of increases in ambient levels of noise or light; predation by domestic pets; competition with exotic plants and animals; introduction of toxics, including pesticides; and other human disturbances such as hiking, off-road vehicle use, unauthorized dumping, etc. Indirect impacts are often attributed to the subsequent day-to-day activities associated with project build-out, such as increased noise, the use of artificial light sources, and invasive ornamental plantings that may encroach into native areas. Indirect effects may be both short-term and long-term in their duration. These impacts are commonly referred to as “edge effects” and may result in a slow replacement of native plants by non-native invasive species, as well as changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

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

5.1 California Environmental Quality Act (CEQA)

A. 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.

B. Criteria for Determining Significance Pursuant to CEQA

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

- a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*
- b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*
- c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.*
- d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.*
- e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.*
- f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.*

5.2 Impacts to Vegetation Communities

Table 5-1 provides a summary of proposed impacts to vegetation/land use types within the Project site. The proposed Project would permanently impact approximately 114.87 acres of developed, disturbed, ruderal, ornamental, and riparian vegetation/land use types. With the exception of the riparian vegetation, none of these constitute sensitive vegetation communities. Approximately 0.87 acre would be temporarily impacted, and 0.23 acre would not be impacted

by the proposed Project [Exhibit 8]. In addition to the on-site impacts noted above, the proposed Project will result in 10.73 acres of off-site impacts for road and storm drain improvements, all of which will occur in developed areas consisting of existing roads [Exhibit 8]. These impacts are not included in the table below.

Riparian habitat is considered a special-status plant community; however, this vegetation type within the Project site consists of approximately two individuals and is surrounded by ruderal vegetation that is regularly maintained. The riparian habitat on site does not function as a proper riparian environment as it does not support plant or animal species that are adapted to such habitats. Due to the small amount and low quality of the riparian habitat on site, the impacts would be less than significant under CEQA. As such, the Project would not result in any significant impacts to sensitive vegetation communities.

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

VEGETATION/LAND USE TYPE	Permanent Impacts (acres)	Temporary Impacts (acres)
Developed	47.37	0.07
Disturbed	18.90	0.79
Ruderal	47.00	0.01
Ornamental	1.58	0
Riparian	0.02	0
Total	114.87	0.87

5.3 Impacts to Special-Status Plants

No suitable habitat for special-status plant species was detected within the proposed Project site. Based on the disturbed and maintained nature of the site and the lack of suitable habitat, no impacts to special-status plant species are expected as a result of the Project.

5.4 Impacts to Special-Status Animals

5.4.1 Impacts to Listed Species

The proposed Project may result in the loss of habitat for SKR and Swainson's hawk (foraging only). Although not observed during biological surveys, SKR and Swainson's hawk have the potential to occur within the Project site and if present may be impacted by the Project.

SKR – Although SKR was not detected on the Project site, potential habitat for SKR occurs within the Project site within disturbed and ruderal areas. Small mammal burrows were detected; therefore, there is a low potential for SKR to occur. Impacts to SKR occupied habitat could be a potentially significant impact under CEQA; however, the proposed Project site occurs within the Fee Assessment Area of the SKR HCP. All projects located within Fee Assessment Area are required to pay the SKR fee, which mitigates any impacts to SKR. With coverage afforded by the SKR HCP, any potentially significant impacts to SKR would be reduced to a less than significant level.

Swainson's Hawk – Development of the proposed Project would remove potential low-quality foraging habitat for migrating Swainson's hawks during spring/fall and winter. Although this species is listed as Threatened by the state of California, CESA does not protect migrant habitat unless the habitat supports breeding/nesting, thus protection under CESA wouldn't be triggered by the Project. Regardless, since the Swainson's hawk is a covered species under the MSHCP, any take of Swainson's hawk would be covered, and any potentially significant impacts would be reduced below a level of significance through compliance with the MSHCP, including the payment of MSHCP development fees.

5.4.2 Impacts to Non-Listed Species

In addition to the listed species discussed above, the proposed Project would potentially impact habitat for the following non-listed special-status species that have potential to occur but that are covered by the MSHCP: burrowing owl, golden eagle (foraging only), loggerhead shrike, and white-tailed kite (foraging only). The proposed Project would also potentially impact habitat for the following non-listed and/or special-status species that have potential to occur but that are not covered by the MSHCP: western yellow bat.

Non-Listed Species, MSHCP Covered

Burrowing Owl – As previously mentioned in Section 4.5.2, burrowing owl was confirmed absent through focused surveys and the proposed Project would not impact this species. The loss of occupied burrowing owl habitat, if owls were present, would be a potentially significant impact under CEQA. However, because burrowing owls are currently absent from the site, the proposed Project would not result in significant impacts to the species. Because the site has potential to support burrowing owls in the future based on the presence of suitable habitat, the MSHCP requires pre-construction surveys where suitable habitat is present, which is further discussed in Section 6.1.

Proposed impacts to golden eagle (foraging only), loggerhead shrike, and white-tailed kite (foraging only) would be less than significant under CEQA. This is based on the number of individuals potentially affected and the species role in the Project site. Regardless, these species are designated as covered species under the MSHCP, and the loss of habitat for these species would be covered through the MSHCP and payment of development fees.

Non-Listed Species, MSHCP Non-Covered

Proposed impacts to western yellow bat habitat would be less than significant under CEQA. This species is not covered under the MSHCP but impacts to this species would be less than significant as a result of a low level of sensitivity, low quality of habitat onsite, and low numbers of individuals that would potentially be expected to be impacted by the proposed Project.

5.5 Impacts to Raptors

The proposed Project would remove potential foraging habitat for raptors including American kestrel, Cooper's hawk, golden eagle, loggerhead shrike, red-tailed hawk, Swainson's hawk, and

white-tailed kite. The proposed Project would also remove potential nesting habitat for raptors including American kestrel and red-tailed hawk.

Potential foraging habitat is limited to the disturbed and ruderal areas within the Project site; however, as previously mentioned, the site is entirely surrounded by commercial and residential development which does not provide ideal foraging habitat for raptor species. The proximity of the site to the Prado Flood Control Basin and Regional Park is the primary reason for the potential for the specified raptors to forage on site. Due to the nature of raptors to fly long distances for foraging, their absence on site cannot be ruled out.

Nesting habitat for the American kestrel and red-tailed hawk is limited to the ornamental trees scattered throughout the Project site. While these trees provide suitable breeding habitat for the species, it is not ideal since the site is situated in an urban setting with low-quality foraging habitat as described above.

In addition, the golden eagle and white-tailed kite are covered species under the MSHCP and the loss of foraging habitat for these species would be covered through the MSHCP and payment of its development fees.

Due to the low-quality foraging and/or nesting habitat that occurs on site, impacts to raptor species would be less than significant under CEQA.

5.6 Impacts to Nesting Birds

The project has the potential to impact active bird nests if vegetation is removed during the nesting season (February 1 to August 31). Impacts to nesting birds are prohibited by the MBTA and 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.

5.7 Impacts to Wildlife Migration/Nurseries

The Project site lacks migratory wildlife corridors and does not occur within MSHCP Cores or Linkages. The proposed Project would not interfere or impact (1) the movement of native resident or migratory fish or wildlife species or (2) established native resident or migratory wildlife corridors.

The Project site may represent a wildlife nursery site if western red bat, western yellow bat, or other non-special-status lasiurine bat species are utilizing the large ornamental trees within the Project study area as maternity roosts in a colonial or semi-colonial nature. However, the extent of potential habitat is limited to a small Eucalyptus windrow and some scattered large ornamental trees. While this area may constitute a nursery site, the loss of the nursery site would be less than significant.

5.8 Impacts to Critical Habitat

The proposed Project will not impact lands designated as critical habitat by the USFWS.

5.9 Impacts to Jurisdictional Waters

Implementation of the proposed Project would permanently impact 0.48 acre of Corps and Regional Board jurisdiction, none of which consists of jurisdictional wetlands, and 0.69 acre of CDFW jurisdiction, of which 0.02 acre consists of riparian vegetation (2,431 linear feet). Implementation of the proposed Project would also temporarily impact 0.18 acre of Corps and Regional Board jurisdiction, none of which consists of jurisdictional wetlands, and 0.26 acre of CDFW jurisdiction, none of which consists of riparian vegetation (430 linear feet). Temporary impacts are necessary to match the upstream and downstream elevations within the drainage. The remaining 0.05 acre of Corps and Regional Board jurisdiction and 0.08 acre of CDFW jurisdiction that occurs within the Study area is not a part of the proposed Project.

The subject drainages are ephemeral and only a small amount of woody riparian vegetation limited to one mulefat shrub would be impacted by the Project. Drainage 1 would be filled to grade the site and Drainage 2 would be impacted for flood improvements by installing a concrete lining, culverts, and associated riprap [Exhibit 8]. These features support very limited to no habitat to plant or wildlife species beyond what the adjacent uplands provide; however, impacts to these drainages would be potentially significant under CEQA and therefore require mitigation. In addition, impacts to these drainage features will trigger CWA Sections 401 and 404 and Fish and Game Code 1602 permitting/authorizations. The regulatory agencies are also expected to require mitigation as part of the permitting process. Mitigation to satisfy CEQA and the regulatory agencies is discussed in Section 6.3.

5.10 Impacts to MSHCP Riparian/Riverine Areas

The Project would result in unavoidable permanent impacts to 0.69 acre of MSHCP riparian/riverine resources, of which 0.02 acre consists of riparian vegetation. The proposed Project will also result in unavoidable temporary impacts to 0.26 acre of MSHCP riverine resources associated with grading activities necessary to match the upstream and downstream elevations within the drainage. No vegetation occurs within the temporary impact area. The remaining 0.08 acre of MSHCP riverine that occurs within the Study area is not a part of the proposed Project.

The riparian/riverine resources onsite are ephemeral features that provide very limited to no habitat for plants or animals beyond that of the adjacent uplands. Pursuant to *Volume I, Section 6.1.2* of the MSHCP, projects must consider alternatives providing for 100% percent avoidance of riparian/riverine areas. If avoidance is infeasible, then the unavoidable impacts must be mitigated and a Determination of Biologically Equivalent or Superior Preservation (DBESP) is required. Refer to Section 6.0 for addressing mitigation to offset the impact of 0.69 acre of riparian/riverine resources.

5.11 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. Since the Project site is entirely surrounded by residential and commercial development, no indirect impacts to biological

resources are expected as a result of the Project. Furthermore, the Project site is not located in proximity to the MSHCP Conservation Area, as so the MSHCP Urban/Wildland Interface Guidelines do not apply to the Project.

5.12 Cumulative Impacts to Biological Resources

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

As discussed in Section 5.2, the proposed project would impact approximately 0.02 acre of riparian habitat. Due to the small amount and low quality of the riparian habitat on site, the loss of this area will not make a cumulatively considerable contribution to the decline of these resources.

As discussed in Sections 5.4.1 and 5.4.2, the proposed Project would result in a loss of potential foraging habitat for a number of special-status birds, including raptor species, as well as potential habitat for SKR, burrowing owl, and western yellow bat. Due to the limited amount of undeveloped and degraded habitat within the Project site, the value of this potential habitat to these species is low. As such, loss of habitat for these species would not be cumulatively significant.

6.0 MITIGATION/AVOIDANCE MEASURES

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

6.1 Burrowing Owl

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

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

6.2 Nesting Birds

The Project site contains vegetation with the potential to support native nesting birds. As discussed above, the MBTA and the California Fish and Game Code prohibits impacts to active nests. The following measure is recommended to avoid impacts to nesting birds:

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

6.3 Jurisdictional Waters and MSHCP Riparian/Riverine

As discussed above in Sections 5.9 and 5.10, the proposed Project would result in permanent and temporary impacts to drainage features which would require CWA Sections 401 and 404 and Fish and Game Code 1602 permits/authorizations, and which would also require a DBESP pursuant to *Volume I, Section 6.1.2* of the MSHCP. The following recommended measure provides mitigation to offset impacts to these resources:

- The applicant will compensate for Project-specific impacts at a minimum 1:1 ratio for Corps/Regional Board jurisdiction and CDFW unvegetated streambed, and a minimum 2:1 ratio for riparian vegetation through the purchase of rehabilitation, reestablishment, and/or establishment mitigation credits at an approved mitigation bank or in-lieu fee program within the Santa Ana River Watershed.

7.0 MSHCP CONSISTENCY ANALYSIS

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

7.1 Project Relationship to Reserve Assembly

The proposed Project is located within the Eastvale Area Plan of the MSHCP. The proposed Project is not located within any MSHCP Criteria Area and would therefore not be subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process or the Joint Project Review (JPR) process.

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

The proposed Project will permanently impact 0.69 acre and temporarily impact 0.26 acre of MSHCP riparian/riverine areas which will require a Determination of Biologically Equivalent or Superior Preservation (DBESP). With the approval of a DBESP, the Project will be consistent with *Volume I, Section 6.1.2* of the MSHCP.

The Project will not impact habitat with the potential to support riparian birds, including the least Bell's vireo, southwestern willow flycatcher, or the western yellow-billed cuckoo. Furthermore, the Project will not impact vernal pools or listed fairy shrimp.

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.

A portion of the Project site easterly of Mountain Avenue is located within the MSHCP NEPSSA 7 which targets the following species: San Diego ambrosia (*Ambrosia pumila*), Brand's phacelia (*Phacelia stellaris*), and San Miguel savory (*Clinopodium chandleri*). The Project site was not found to support suitable habitat for any special-status plant species, including the NEPSSA target species; therefore, the proposed Project would be considered consistent with *Volume I, Section 6.1.3*.

7.4 Guidelines Pertaining to the Urban/Wildland Interface

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

The proposed Project is not located within any MSHCP Criteria Area and is also not in proximity to any MSHCP Conservation Area. No indirect effects associated with the development are expected; therefore, the proposed Project would be consistent with the Urban/Wildland Interface Guidelines contained in MSHCP *Volume I, Section 6.1.4*.

7.5 Additional Survey Needs and Procedures

Volume I, Section 6.3.2 of the MSHCP states that in addition to the Narrow Endemic Plant Species addressed in *Volume I, Section 6.1.3*, additional surveys may be needed for other certain plant and animal species in conjunction with MSHCP implementation in order to achieve full

coverage for these species. Within areas of suitable habitat, focused surveys are required for additional plant species if a project site occurs within a designated Criteria Area Plant Species Survey Area. In addition, focused surveys are also required (with suitable habitat) for seven animal species as identified by the corresponding Survey Area.

A portion of the Project site is located within the MSHCP burrowing owl survey area. Focused burrowing owl surveys were performed for the Project site and burrowing owls were not detected at the site. However, as discussed above in Section 6.1, pre-construction surveys are required no more than 30 days prior to construction to confirm the absence of owls. With the performance of pre-construction surveys, the Project would be consistent with *Volume I, Section 6.3.2* of the MSHCP.

The Project site is not located within the CAPSSA, or within the MSHCP mammal or amphibian survey area.

7.6 Conclusion of MSHCP Consistency

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

8.0 REFERENCES

- American Ornithologists' Union (AOU). 2009. Checklist of North American Birds, (7th Edition; 1998-2009).
- Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, and D.H. Wilken. 2012. The Jepson Manual: Vascular Plants of California. University of California Press. 1,568 pp.
- California Department of Fish and Wildlife. 2008. Complete List of Amphibian, Reptile, Bird and Mammal Species in California. Dated September 2008.
- [CDFG] California Department of Fish and Game. 2009. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Natural Communities. State of California, California Natural Resources Agency, Department of Fish and Game. Dated November 24, 2009.
- [CDFW] California Department of Fish and Wildlife. 2019. Special Animals. State of California Resources Agency, Sacramento, California.
- California Department of Fish and Wildlife. 2019. State and Federally Listed Endangered and Threatened Animals of California. State of California Resources Agency. Sacramento, California.
- [CDFW] California Department of Fish and Wildlife. 2019. California Natural Diversity Database: RareFind 5. Records of occurrence for U.S.G.S. 7.5- minute Quadrangle maps: Corona North, California and surrounding quadrangle maps. California Department of Fish and Wildlife, State of California Resources Agency. Sacramento, California. [April 2019]
- [CNPS] California Native Plant Society. 2001. Inventory of Rare and Endangered Plants of California (sixth edition). Rare Plant Scientific Advisory Committee, David P. Tibor, Convening Editor. California Native Plant Society. Sacramento, CA. x + 388pp.
- [CNPS] California Native Plant Society, Rare Plant Program. 2019. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39). Website <http://www.rareplants.cnps.org> [accessed April 2019].
- Collins, Joseph T. and Travis W. Taggart. 2009. Standard Common and Current Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodilians. Sixth Edition. Publication of The Center For North American Herpetology, Lawrence. iv+44p.
- [Dudek] Dudek & Associates. 2003. Western Riverside County Multiple Species Habitat Conservation Plan. Volumes 1 – 5. Prepared for the Transportation and Land Management Agency, County of Riverside, California as part of the Riverside County

Integrated Project. Adopted June 2003, currently available at
<http://www.rcip.org/conservation.htm>.

- Garrett, K. and J. Dunn. 1981. *Birds of Southern California: Status and Distribution*. Los Angeles Audubon Society. 407 pp.
- Holland, R. F. 1986. *Preliminary Descriptions of the Terrestrial Natural Communities of California*. Nongame-Heritage Program, California Department of Fish and Wildlife.
- Munz, P.A. 1974. *A Flora of Southern California*. University of California Press. 1,086 pp.
- Nelson, J. 1984. Rare plant survey guidelines. In: *Inventory of rare and endangered vascular plants of California*. J. Smith and R. York (eds.). Special Publication No. 1. California Native Plant Society.
- [NRCS] Natural Resources Conservation Service. 2019. Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: <https://websoilsurvey.sc.egov.usda.gov/>. Accessed [April 2019].
- [RCHCA] Riverside County Habitat Conservation Agency. 1996. *Habitat Conservation Plan for the Stephens' Kangaroo Rat in Western Riverside County, California*. Riverside, CA: Riverside County Habitat Conservation Agency.
- Sawyer, J.O, T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation*. Second Edition. California Native Plant Society Press. Sacramento, California. 1,300 pp.
- Stebbins, R. C. 1954. *Amphibians and reptiles of western North America*. McGraw-Hill, New York. 536pp.
- Stebbins, R.C. 1985. *A field guide to western reptiles and amphibians*, 2nd ed. Houghton Mifflin Co., Boston, Massachusetts.
- [USFWS] U.S. Fish and Wildlife Service. 2000. *Guidelines for Conducting and Reporting Botanical Inventories for Federally Listed, Proposed and Candidate Plants*. Sacramento, CA: U.S. Fish and Wildlife Service. Unpublished memorandum, dated January 2000.

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:

A handwritten signature in black ink, appearing to read "Jilligan", with a stylized flourish extending to the right.

Date: __10/10/2019__

p:1145-14.bio.rpt.docx

Source: ESRI World Street Map



0 2 4 8
Miles



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

PALOMINO BUSINESS PARK PROJECT

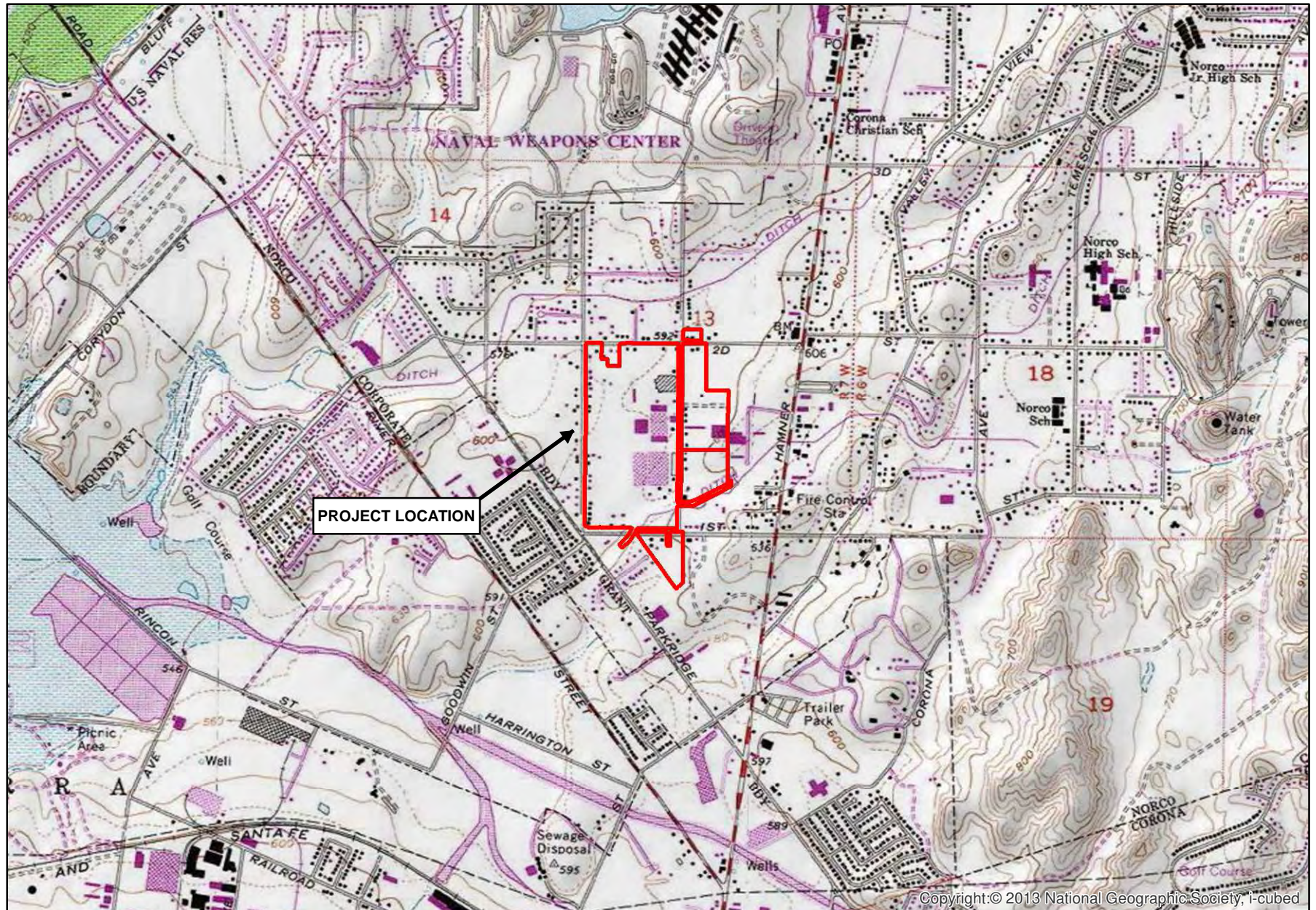
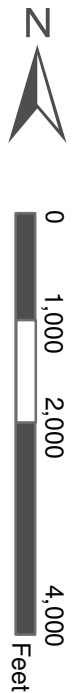
Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Corona North, CA quadrangle



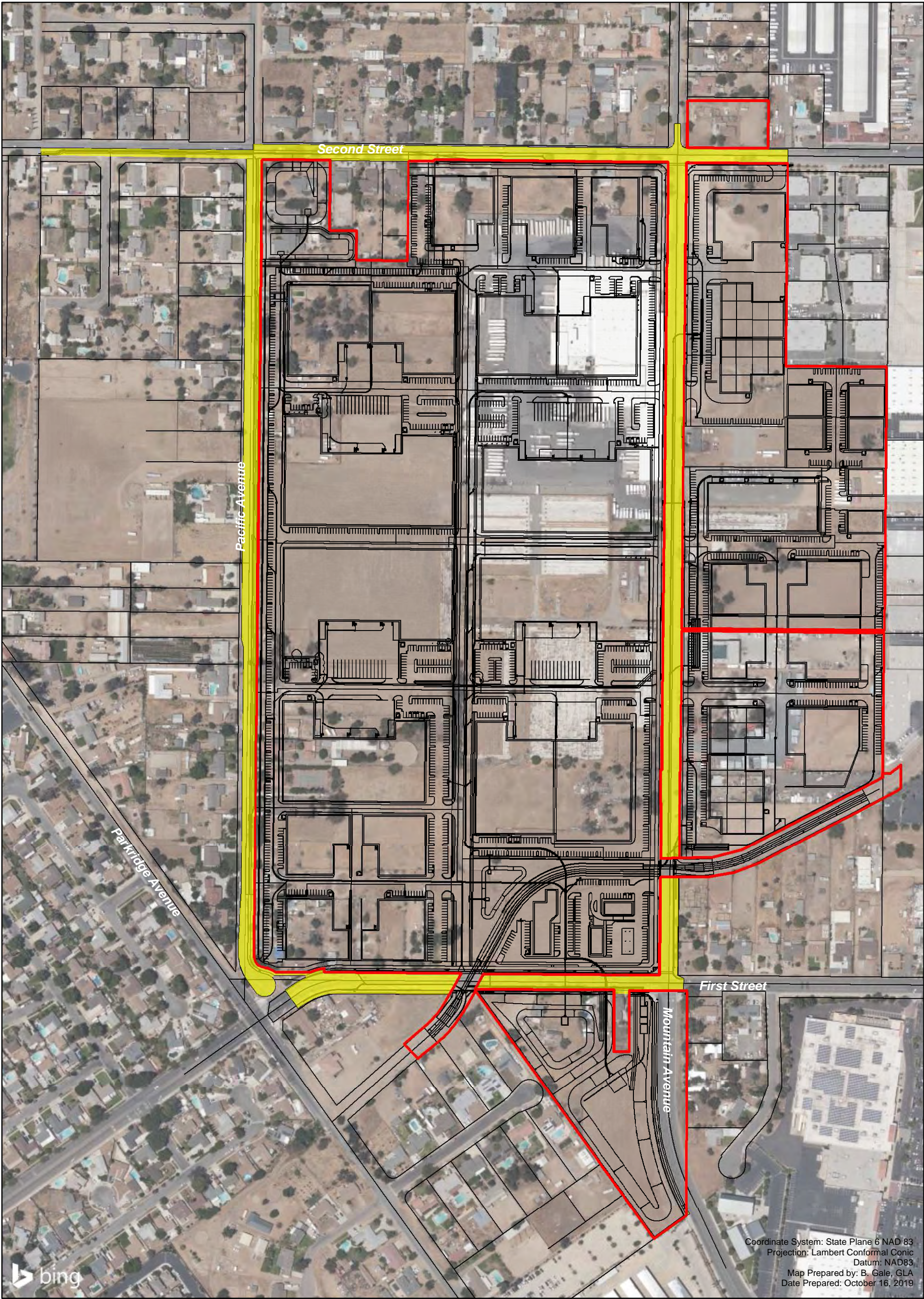
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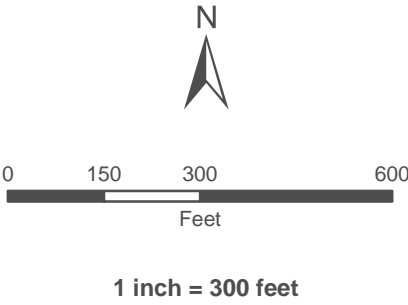
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Exhibit 2



-  Project Boundary
-  Project Site Plan
-  Offsite Impacts



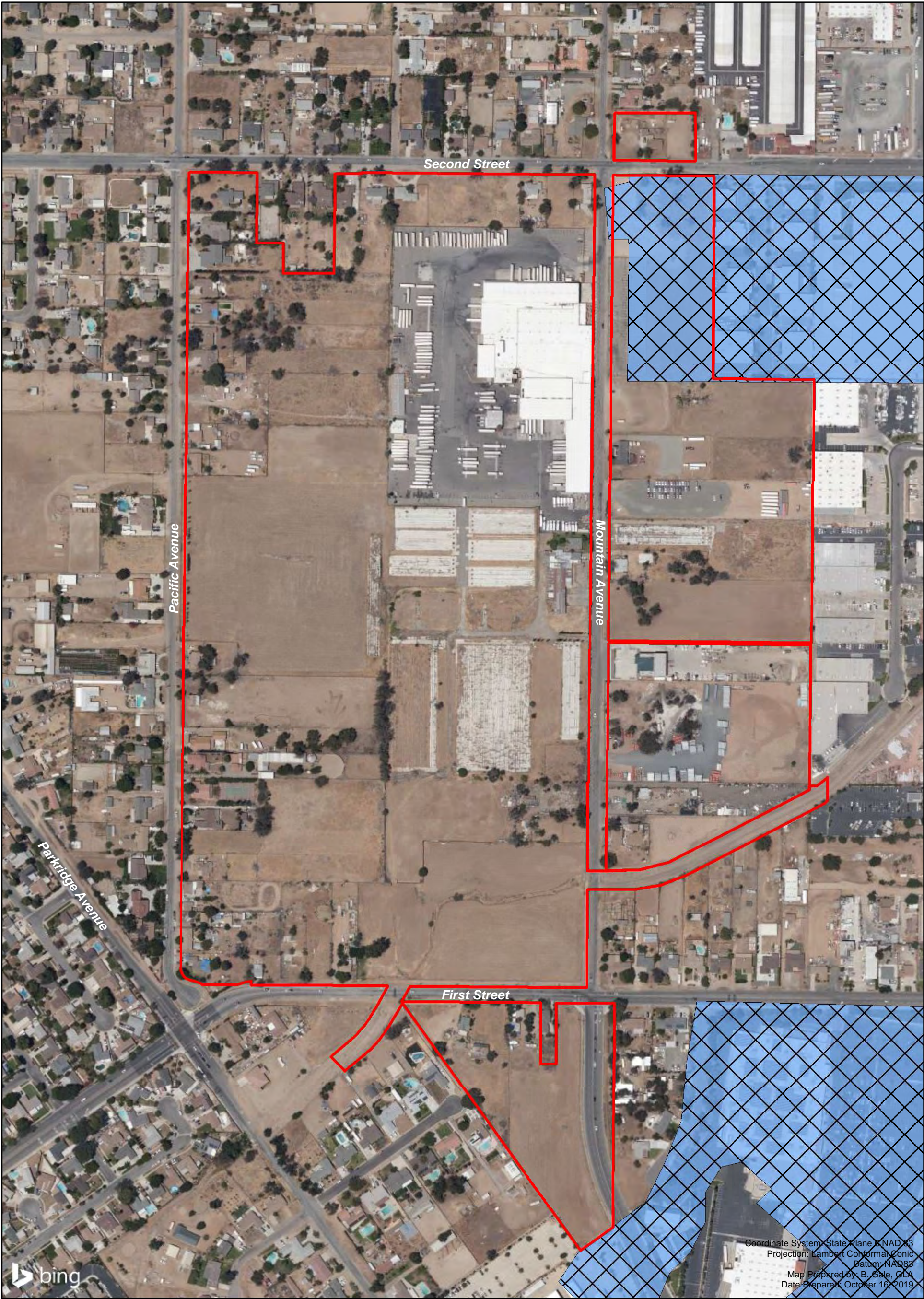
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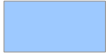
Site Map

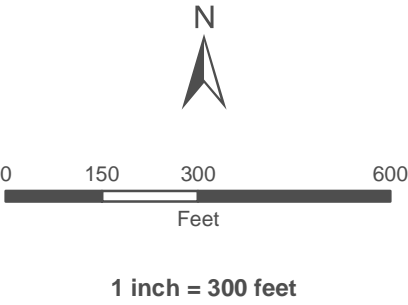
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Exhibit 3





-  Project Boundary
-  Narrow Endemic Plants Survey Area
-  Burrowing Owl Survey Area

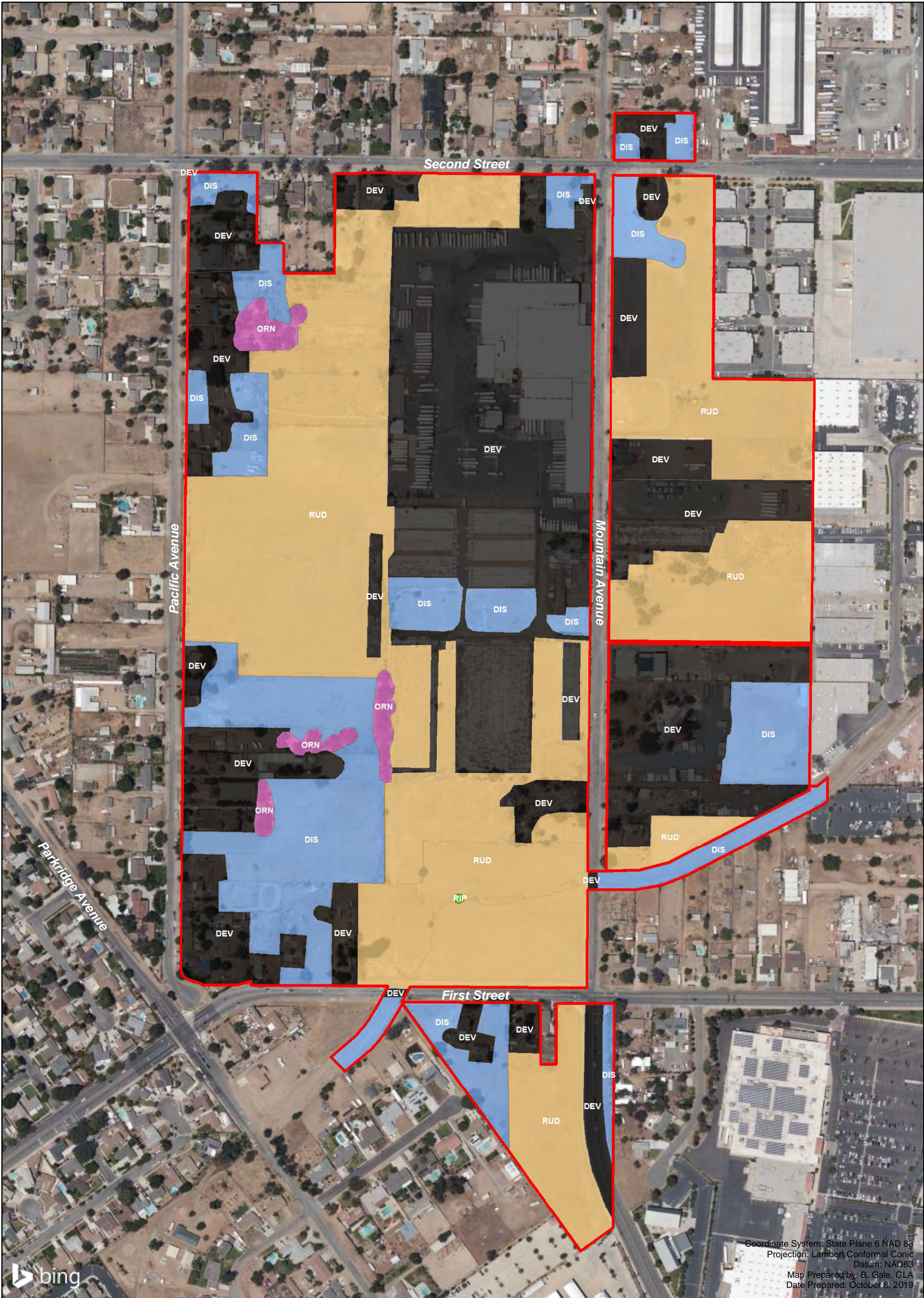








**PALOMINO
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MSHCP Overlay Map

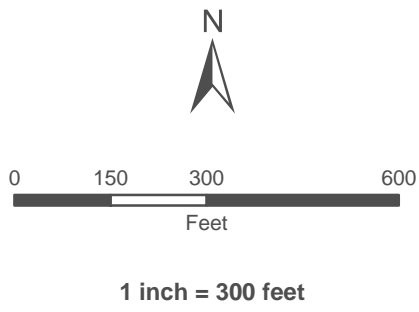
GLENN LUKOS ASSOCIATES



Exhibit 4



-  Project Boundary
-  DEV - Developed
-  DIS - Disturbed
-  ORN - Ornamental
-  RIP - Riparian
-  RUD - Ruderal

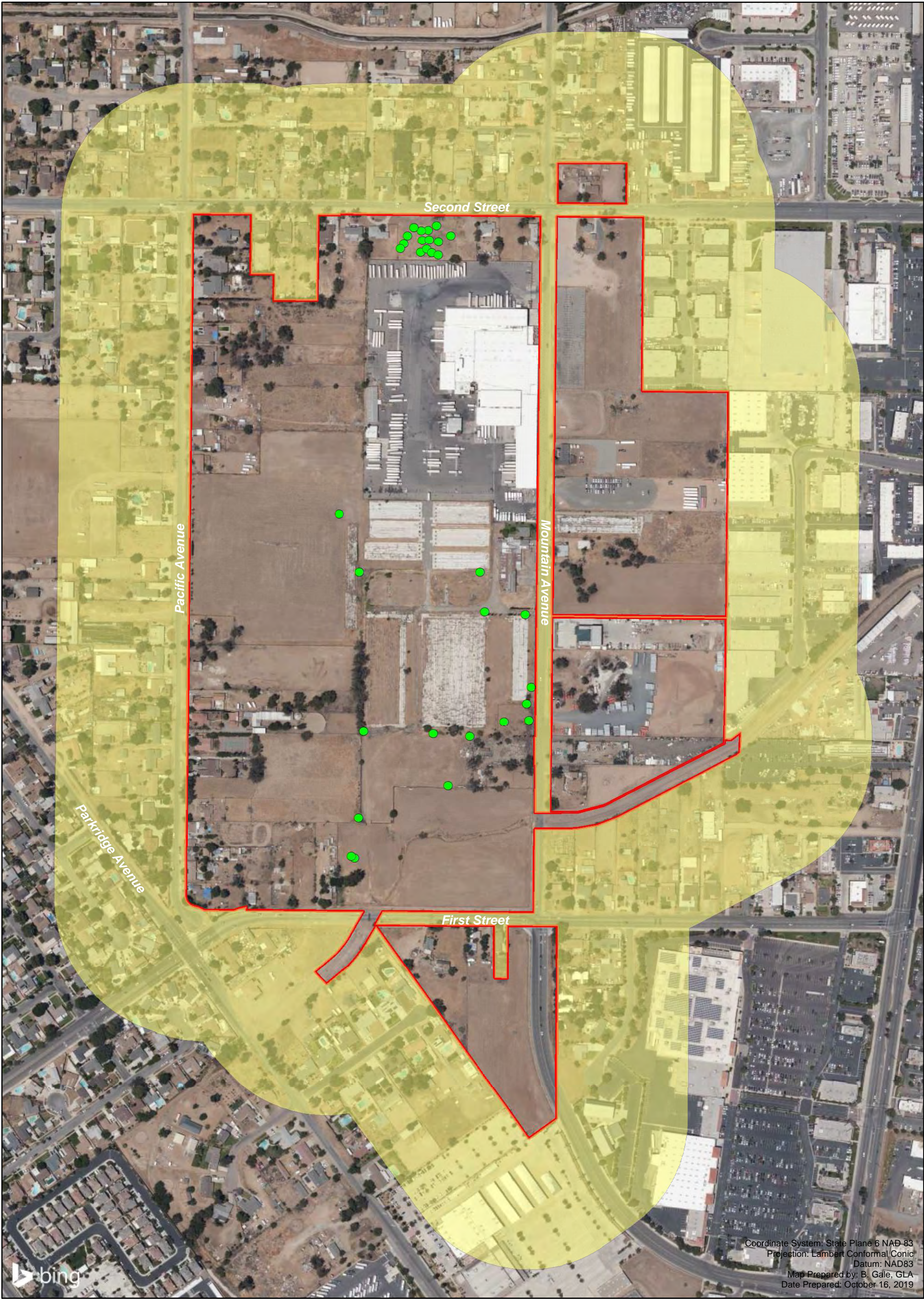





**PALOMINO
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Vegetation Map

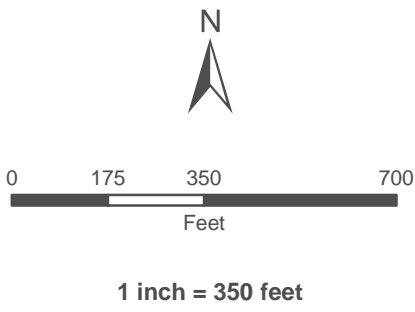
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Exhibit 5





-  Project Boundary
-  500' Buffer Area
-  Burrow



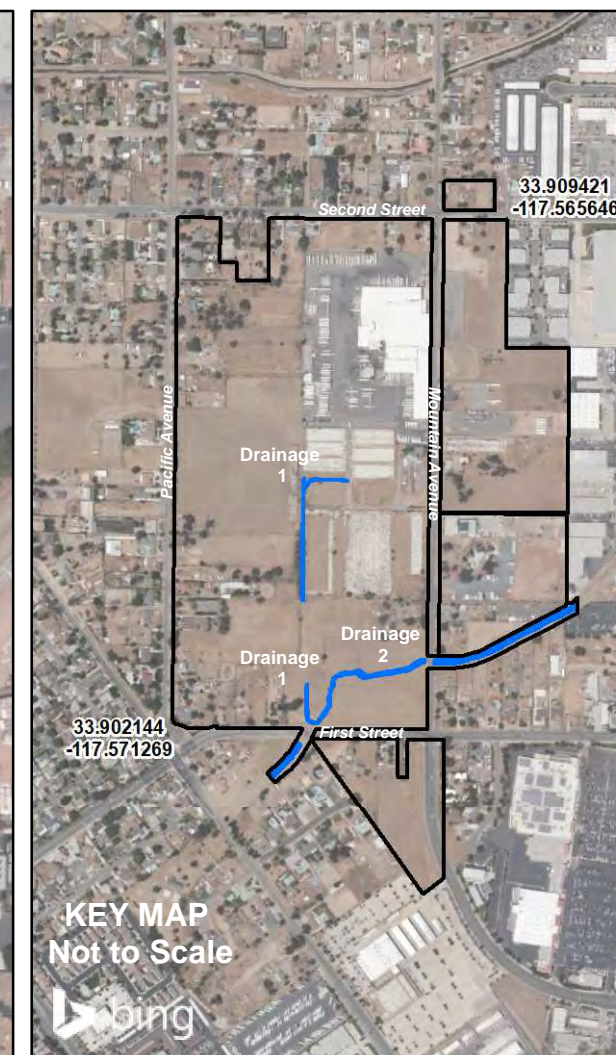
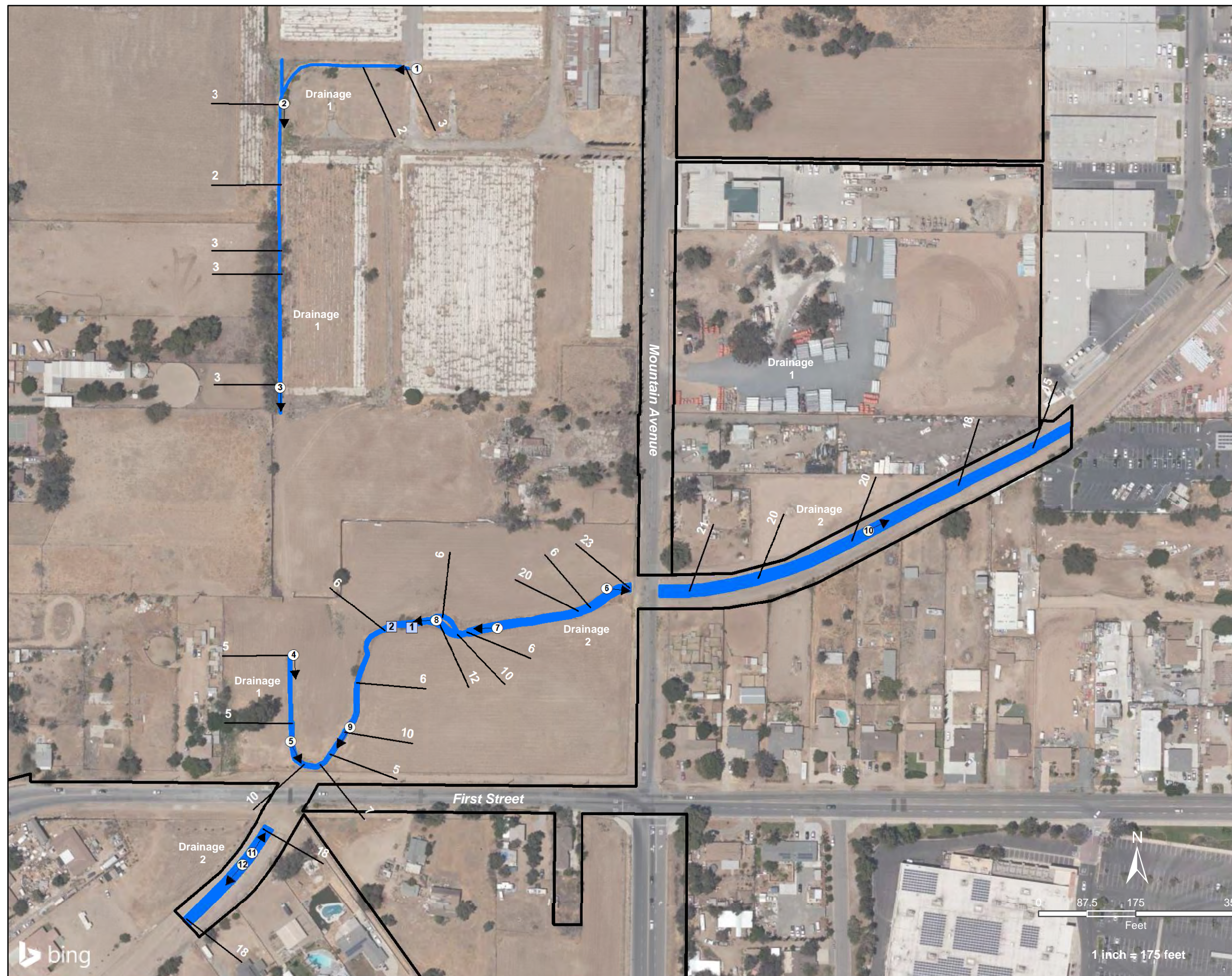
**PALOMINO
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BUOW Surevy Area/Location Map

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Exhibit 6





- Project Boundary
- Corps/RWQCB Non-Wetland Waters
- 5 Width in Feet
- Data Pit Location
- ① Photo Location

Coordinate System: State Plane 6 NAD 83
 Projection: Lambert Conformal Conic
 Datum: NAD83
 Map Prepared by: B. Gale, GLA
 Date Prepared: October 16, 2019

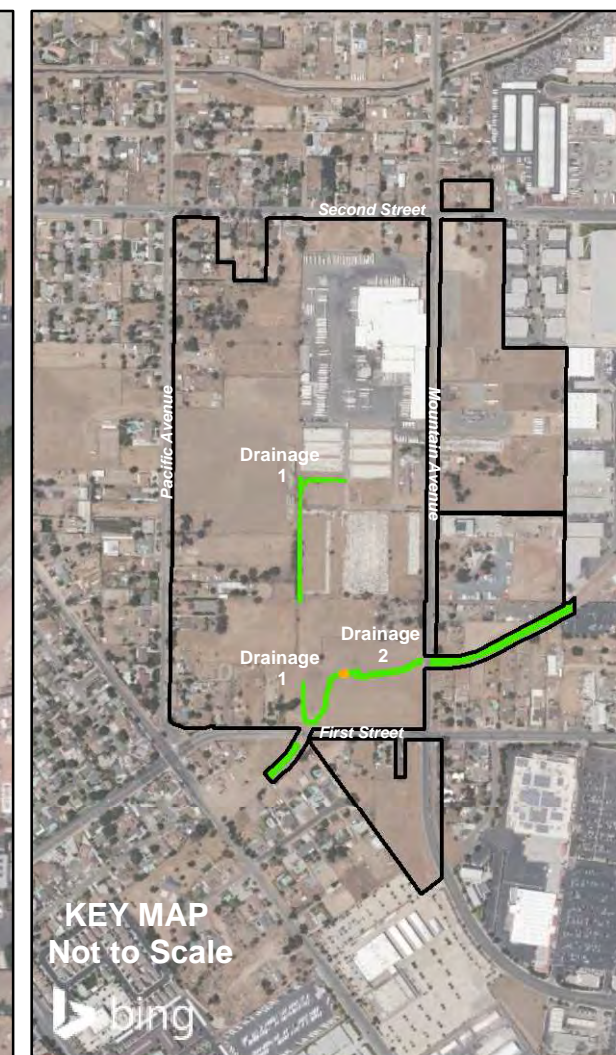
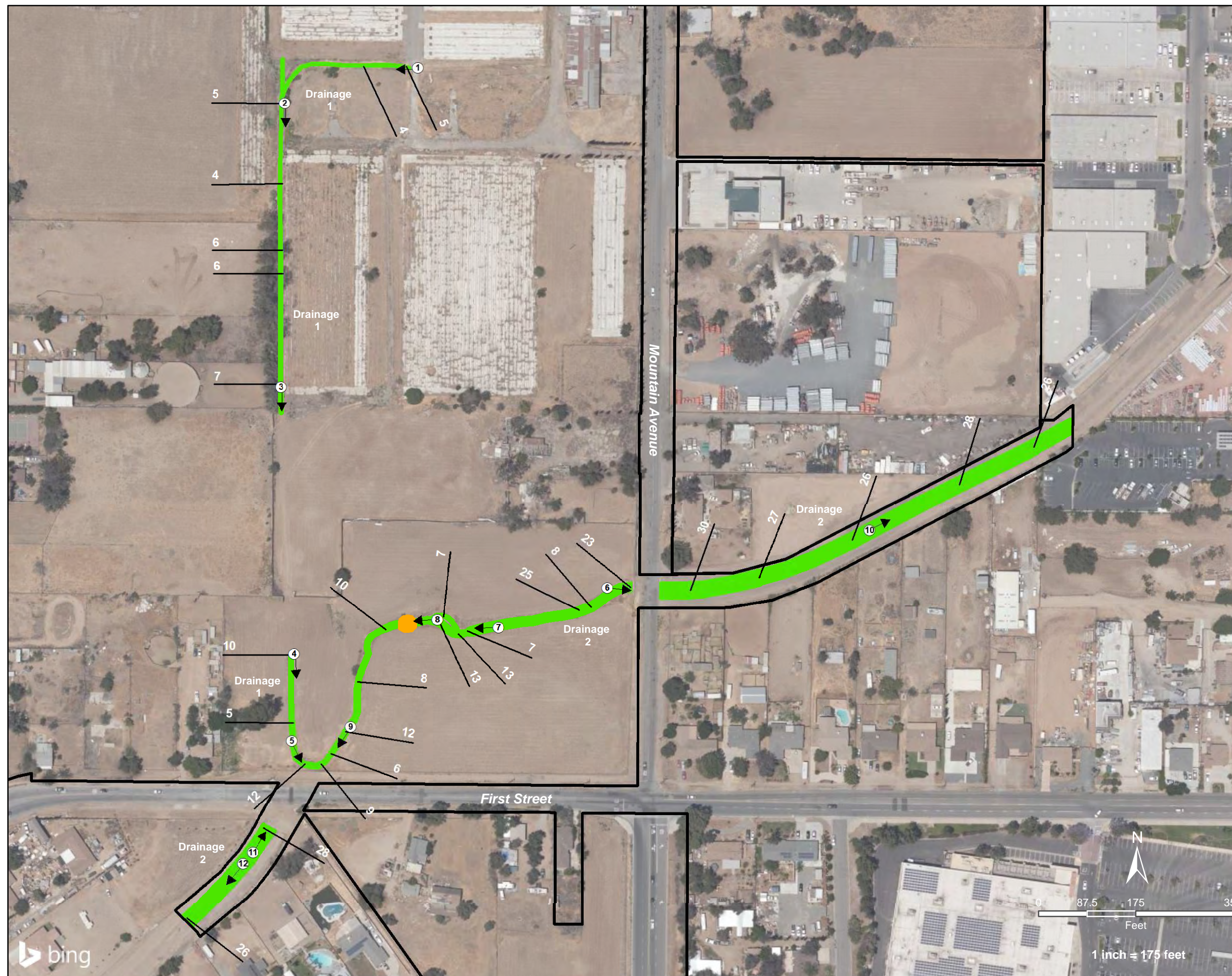
PALOMINO BUSINESS PARK PROJECT

Corps/RWQCB Jurisdictional Delineation Map

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Exhibit 7A





- Project Boundary
- CDFW Non-Riparian Streambed
- CDFW Riparian
- Width in Feet
- 1 Photo Location

Coordinate System: State Plane 6 NAD 83
 Projection: Lambert Conformal Conic
 Datum: NAD83
 Map Prepared by: B. Gale, GLA
 Date Prepared: October 16, 2019

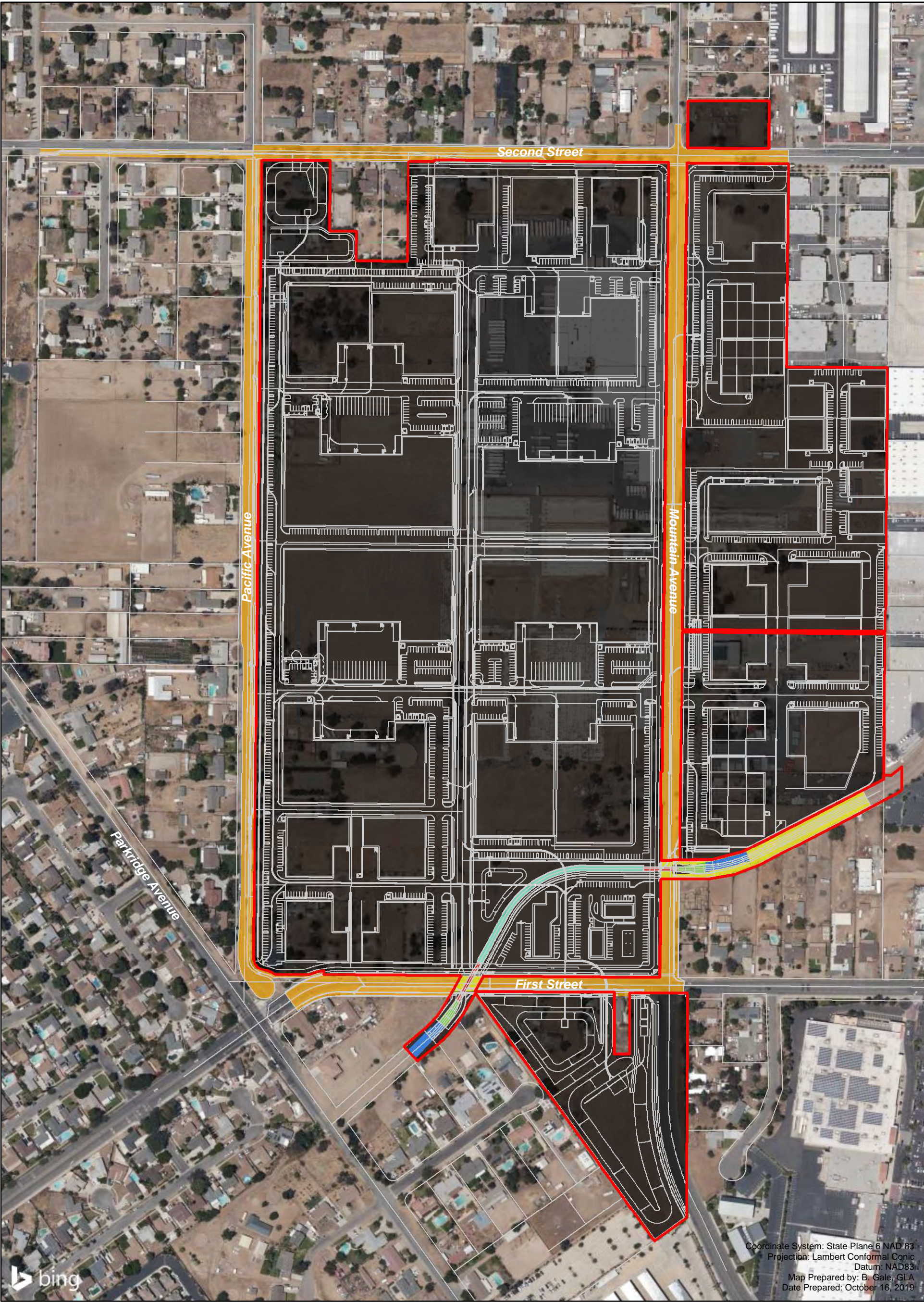
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CDFW Jurisdictional Delineation Map

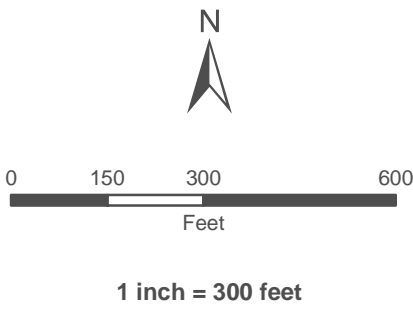
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Exhibit 7B





- Project Boundary
- Project Site Plan
- Permanent
- Temporary
- Offsite Impacts
- 20'-wide Concrete Channel
- 8'x12' Single Cell RCB
- Concrete Apron
- Permanent Fill
- Rip Rap



**PALOMINO
BUSINESS PARK PROJECT**

Impact Map

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Exhibit 8



Photograph 1: Representative site photograph of the ruderal vegetation cover which occurs throughout the Project site. Dominant plant species are cheeseweed, common fiddleneck, foxtail barley, and ripgut grass.



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Exhibit 9, Sheet 1



Photograph 2: Representative photograph of the maintained nature of the Project site, facing south. This photo exhibits a ruderal area that was recently mowed. Note the windrow of Eucalyptus trees along the right side of the frame.

**PALOMINO
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Site Photographs



Photograph 3: Representative site photograph of the abandoned egg-farm area which occurs in the central portion of the Project site, facing south. This area is considered “developed” as it is devoid of vegetation.



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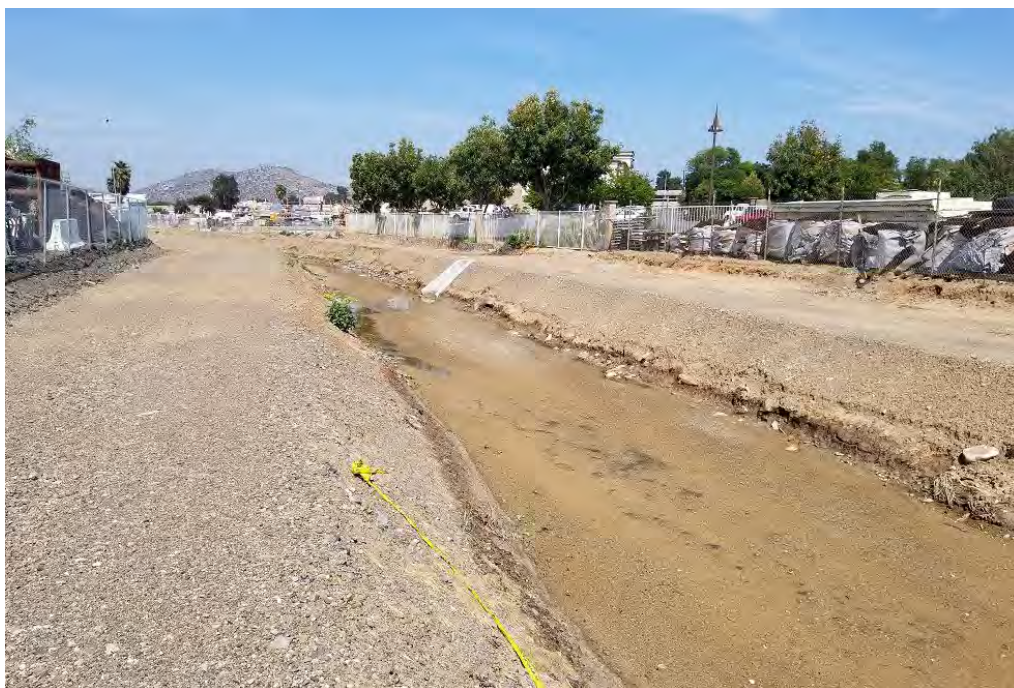
Exhibit 9, Sheet 2



Photograph 4: Representative photograph of Drainage 2 which flows through the southern portion of the Project site. Note the riparian vegetation consisting of a small patch of mulefat along the bank of the drainage in the background of the photo.

**PALOMINO
BUSINESS PARK PROJECT**

Site Photographs



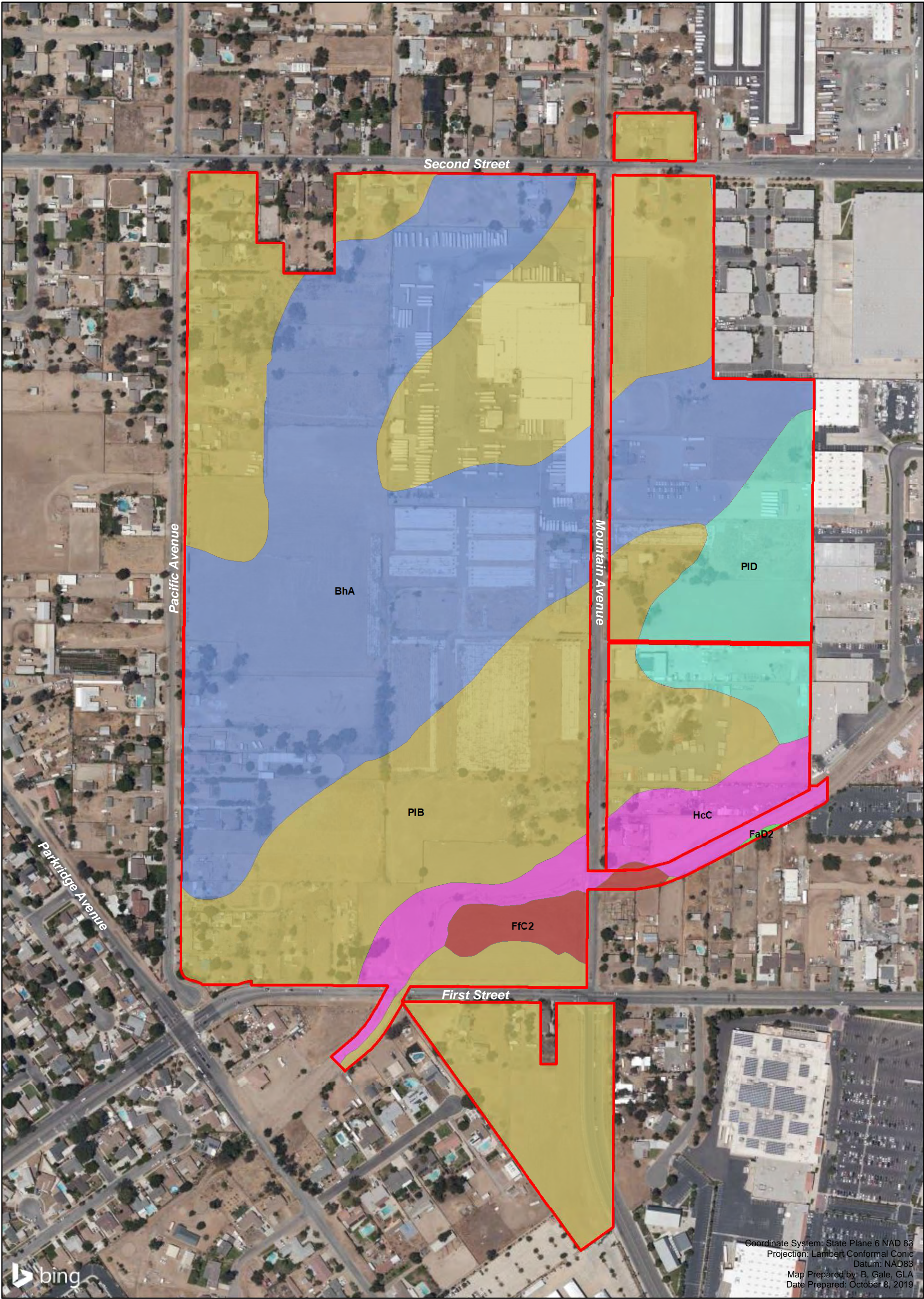
Photograph 5: Representative site photograph of the earthen drainage originating offsite and entering the Project site at the eastern boundary. Photo taken facing northeast.



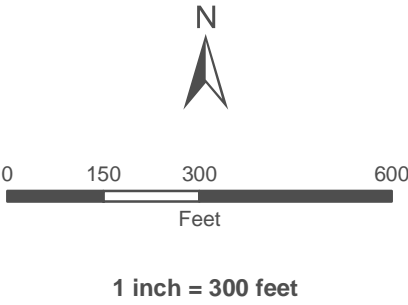
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Exhibit 9, Sheet 3

PALOMINO BUSINESS PARK PROJECT	Site Photographs
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- Project Boundary
- BhA - Buchenau loam, slightly saline-alkali, 0 to 2 percent slopes
- FaD2 - Fallbrook sandy loam, 8 to 15 percent slopes, eroded
- FfC2 - Fallbrook fine sandy loam, 2 to 8 percent slopes, eroded
- HcC - Hanford coarse sandy loam, 2 to 8 percent slopes
- PIB - Placentia fine sandy loam, 0 to 5 percent slopes
- PID - Placentia fine sandy loam, 5 to 15 percent slopes



PALOMINO BUSINESS PARK PROJECT

Soils Map

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Exhibit 10



APPENDIX A: FLORAL COMPENDIUM

The floral compendium lists species identified on the project site. Taxonomy follows the Jepson Manual (Baldwin et al 2012) and, for sensitive species, the California Native Plant Society's Rare Plant Inventory (Tibor 2001). Common plant names are taken from Hickman (1993), Munz (1974), and Roberts et al (2004). An asterisk (*) denotes a non-native species.

Scientific Name

Common Name

MAGNOLIOPHYTA DICOTYLEDONS

FLOWERING PLANTS DICOTS

ADOXACEAE

Sambucus nigra ssp. caerulea

Elderberry Family

blue elderberry

ANACARDIACEAE

**Schinus molle*

Sumac Family

Peruvian pepper tree

ASTERACEAE

Baccharis salicifolia

Helianthus annuus

**Hypochaeris glabra*

**Oncosiphon piluliferum*

**Senecio vulgaris*

**Sonchus asper*

**Verbesina encelioides*

Sunflower Family

mulefat

common sunflower

smooth cat's ear

stinknet

common groundsel

spiny sowthistle

golden crownbeard

BORAGINACEAE

Amsinckia intermedia

Borage Family

common fiddleneck

BRASSICACEAE

**Capsella bursa-pastoris*

**Hirschfeldia incana*

**Sisymbrium irio*

Mustard Family

shepard's purse

summer mustard

London rocket

CACTACEAE

**Opuntia ficus-indica*

Cactus Family

mission cactus

CARYOPHYLLIACEAE

Spergularia sp.

**Stellaria media*

Pink Family

spurry species

chickweed

CHENOPODIACEAE

**Atriplex semibaccata*

Goosefoot Family

Australian saltbush

**Salsola tragus*

Russian thistle

CRASSULACEAE

Crassula connata

Stonecrop Family

pigmy weed

FABACEAE

Lupinus bicolor

**Medicago polymorpha*

Pea Family

bicolored lupin

bur clover

FAGACEAE

Quercus agrifolia

Oak Family

coast live oak

GERANIACEAE

**Erodium botrys*

**Erodium cicutarium*

Geranium Family

broad leaf filaree

red stemmed filaree

MALVACEAE

**Malva parviflora*

Mallow Family

cheeseweed

MYRSINACEAE

**Lysimachia arvensis*

Primrose Family

scarlet pimpernel

MYRTACEAE

**Eucalyptus camaldulensis*

Myrtle Family

Red gum eucalyptus

OLEACEAE

**Olea europaea*

Olive Family

olive

POLYGONACEAE

**Rumex crispus*

Buckwheat Family

curly dock

ROSACEAE

**Prunus sp.*

Rose Family

ornamental species

SOLANACEAE

Solanum elaeagnifolium

Nightshade Family

horse nettle

ULMACEAE

**Ulmus sp.*

Elm Family

ornamental elm species

URTICACEAE

**Urtica urens*

Nettle Family

dwarf nettle

MONOCOTYLEDONES

ARECACEAE

**Washingtonia robusta*

POACEAE

**Avena barbata*

**Bromus diandrus*

**Hordeum murinum*

**Schismus barbatus*

MONOCOTS

Palm Family

Mexican fan palm

Grass Family

slender oat

ripgut brome

foxtail barley

common Mediterranean grass

APPENDIX B: FAUNAL COMPENDIA

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

LEGEND

Presence of animals noted by direct sighting, call identification or observation of tracks, scat or other signs

* Denotes non-native species

TERRESTRIAL VERTEBRATES

BIRDS

CATHARTIDAE - NEW WORLD VULTURES

Cathartes aura
turkey vulture

ACCIPITRIDAE - HAWKS

Accipiter cooperi
Cooper's hawk
Buteo jamaicensis
red-tailed hawk

CHARADRIIDAE - SHOREBIRDS

Charadrius vociferus
killdeer

APODIDAE - PIGEONS & DOVES

Zenaida macroura
mourning dove
**Streptopelia decaocto*
Eurasian collared dove

TROCHILIDAE - HUMMINGBIRDS

Calypte anna
Anna's hummingbird

FALCONIDAE - FALCONS

Falco sparverius
American kestrel

TYRANNIDAE - TYRANT FLYCATCHERS

Sayornis nigricans
black phoebe
Sayornis saya
Say's phoebe
Tyrannus verticalis
western kingbird
Tyrannus vociferans
Cassin's kingbird

CORVIDAE - JAYS & CROWS

Corvus brachyrhynchos
American crow

HIRUNDINIDAE - SWALLOWS

Stelgidopteryx serripennis
northern rough-winged swallow

AEGITHALIDAE - BUSHTITS

Psaltiriparus minimus
bushtit

MIMIDAE - THRASHERS

Mimus polyglottos
Northern mockingbird

STURNIDAE - STARLINGS

* *Sturnus vulgaris*
European starling

PARULIDAE - WOOD WARBLERS

Setophaga coronata
yellow-rumped warbler
Geothlypis trichas
Common yellowthroat

EMBERIZIDAE – SPARROWS, BUNTINGS, WARBLERS, & RELATIVES

Melospiza crissalis

California towhee
Zonotrichia leucophrys
white-crowned sparrow

ICTERIDAE - BLACKBIRDS & ORIOLES

Sturnella neglecta
western meadowlark
Icterus bullockii
Bullock's oriole
Icterus cucullatus
hooded oriole
Quiscalus quiscula
common grackle

FRINGILLIDAE - FINCHES

Carpodacus mexicanus
house finch
Carduelis psaltria
lesser goldfinch

PASSERIDAE - OLD WORLD SPARROWS

* *Passer domesticus*
house sparrow

LARIDAE – GULLS, TERNS, & SKIMMERS

Larus occidentalis
Western gull

ANATIDAE – DUCKS, GEESE, & SWANS

Anas platyrhynchos
mallard

MAMMALS

LEPORIDAE - RABBITS & HARES

Sylvilagus audubonii
desert cottontail

SCIURIIDAE - SQUIRRELS

Otospermophilus beecheyi
California ground squirrel

CANIDAE – FOXES, WOLVES, & ALLIES

Canis latrans
coyote