

**BIOLOGICAL TECHNICAL REPORT**

**FOR**

**THE STRATFORD RANCH EAST DEVELOPMENT  
PROJECT (TENTATIVE TRACT MAP NO. 38071)**

**LOCATED IN THE CITY OF PERRIS,  
RIVERSIDE, CALIFORNIA**

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## INFORMATION SUMMARY

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## **1.0 INTRODUCTION**

### **1.1 Background and Scope of Work**

This document provides the results of general biological surveys and focused biological surveys for the approximately 48.61-acre Stratford Ranch East Development Project [Tentative Tract Map Number 38071] and its 0.03-acre off site improvement area [within a 6.97-acre off site property known as the State of California Department of Water Resources Channel and its surrounding areas] located in the City of Perris, Riverside County, California. Collectively, this is considered as “The Project” or the Study Area. This report identifies and evaluates impacts to biological resources associated with the proposed Project in the context of 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 (FGC).

The scope of this report includes a discussion of existing conditions for the approximately 48.61-acre Project site and the 0.03-acre off site improvement area (Collectively, the Project or Study Area), all methods employed regarding the general biological surveys and focused biological surveys, the documentation of botanical and wildlife resources identified (including special-status species), and an analysis of impacts to biological resources. Methods of the study include a review of relevant literature, field surveys, and a Geographical Information System (GIS)-based analysis of vegetation communities. As appropriate, this report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), the California Native Plant Society (CNPS), and other applicable agencies/organizations.

The field study focused on a number of primary objectives that would comply with CEQA requirements, including (1) general reconnaissance survey and vegetation mapping; (2) general biological surveys; (3) habitat assessments for special-status plant species; and (4) habitat assessments for special-status wildlife species. Observations of all plant and wildlife species were recorded during the general biological surveys and are included as Appendix A: Floral Compendium and Appendix B: Faunal Compendium.

### **1.2 Project Location**

The Project comprises approximately 48.64 acres [48.61 acres for the Project site and 0.03 acre off site] in the City of Perris, Riverside County, California [Exhibit 1 – Regional Map] and is located within U.S. Geological Survey (USGS) 7.5” quadrangle map Perris (dated 1980 and photo revised in 2018) [Exhibit 2 – Vicinity Map]. The Project site is bordered by housing development to the north, Lake Perris Drive to the east, the Ramona Expressway to the south, and Evans Road to the west. The Project is contained within Assessor’s Parcel Numbers 302-200-020 through 302-200-032, 302-200-034, 302-210-001 through 302-210-005, and 302-210-007 through 302-210-009.

### **1.3 Project Description**

The Project consists of a proposed residential community of approximately 48.61 acres, as well as 0.03 acre of off-site impacts. The Study Area is located at the northeast corner of Evans Road and Ramona Expressway, in the City of Perris [Exhibit 4 – Site Plan].

The proposed residential community would be comprised of a single residential neighborhood, associated roadways, and water quality basins. The project proposes 192 dwelling units at varying densities with two water quality basins and recreational trail improvements. The Project is proposed to be developed in phases with the first phase comprised of 111 single family lots and second phase with 81 single family lots. The proposal will also be an extension of the Stratford Ranch residential subdivisions to the north and west. The subdivision also includes lettered lots for the water quality basins, pedestrian access to recreational trails and open space, as well as to accommodate a sewer easement by others. Interim drainage improvements are proposed associated with the Phase 1 development. An approximately 98,000 square foot interim water quality/detention basin and storm drain will be constructed that connects to the existing drainage ditch adjacent to Ramona Expressway.

Currently, the site is vacant and accessible by improved Evans Road (to the west) and surrounded by existing residential neighborhoods to the west and north, Lake Perris Recreational Park to the east, and vacant land to the south. The existing ground topography and elevation ranges from 1460 feet to 1452 feet above sea level (ASL) and gradually slopes from north to south.

The Study Area is located within the City of Perris's Special Zone A Flood Zone, which signifies areas of the 100-year floodplain for which base flood elevations and flood hazards have not been determined. Mandatory flood insurance purchase requirements apply for any development within this zone. The Project site is not located within any of the City of Perris's High Fire Hazard Severity Zones.

### **1.4 Relationship of the Project Site to the MSHCP**

#### **1.4.1 MSHCP Background**

The Western Riverside County Multiple Species Habitat Conservation Plan (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 Mead Valley Area Plan of the MSHCP and is bordered to the east and to the south by Public/Quasi Public Conserved lands (PQP). The Project site is not located within the MSHCP Criteria Area, the MSHCP Amphibian Survey Area, MSHCP suitable habitat areas for the Delhi Sands flower-loving fly (*Rhaphiomidas terminatus abdominalis*), or Core and Linkage areas.

The entirety of the Project site is located within the MSHCP Burrowing Owl Survey Area. The western half of the Project site is located within both the Criteria Area Plant Species Survey Area (CAPSSA) and the Narrow Endemic Plant Species Survey Area (NEPSSA). A small portion of the Project site [0.28 acre] is located within the MSHCP Mammal Survey area for Los Angeles Pocket Mouse (LAPM) along the eastern property boundary in APN 302-210-005 [Exhibit 5A – MSHCP Overlay Map].

Within the designated Survey Areas, the MSHCP requires habitat assessments, and focused surveys within areas of suitable habitat. As such, pursuant to the MSHCP, the following target species should be evaluated through habitat assessments and focused surveys (if suitable habitat is present): San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*), Parish's brittle scale (*Atriplex parishii*), Davidson's salt scale (*Atriplex serenana* var. *davidsonii*), Thread-leaved brodiaea (*Brodiaea filifolia*), Round-leaved filaree (*California macrophylla*), Smooth tarplant (*Centromadia pungens* ssp. *laevis*), Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*), Little mousetail (*Myosurus minimus* ssp. *apus*), Mud nama (*Nama stenocarpum*), San Diego ambrosia (*Ambrosia pumila*), spreading navarretia (*Navarretia fossalis*), California Orcutt grass (*Orcuttia californica*), Wright's trichocoronis (*Trichocoronis wrightii* var. *wrightii*), burrowing owl (*Athene cunicularia*), and LAPM (*Perognathus longimembris brevinasus*).

For locations with positive survey results, the MSHCP requires that 90 percent of those portions of the property that provide for long-term conservation value for the identified species shall be avoided until it is demonstrated that conservation goals for the particular species have been met throughout the MSHCP. Findings of equivalency shall be made demonstrating that the 90-percent standard has been met, if applicable. If equivalency findings cannot be demonstrated, then “biologically equivalent or superior preservation” must be provided.

## **2.0 METHODOLOGY**

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

- Delineation of aquatic resources (including wetlands and riparian habitat) potentially 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.
- Performance of focused surveys for rare plants;
- Performance of focused surveys for burrowing owl; and
- A general habitat assessment for Los Angeles pocket mouse in the 0.28-acre parcel in the MSHCP Mammal Survey Area.

### **2.1 Summary of Surveys**

The focus of the biological surveys was determined through initial site reconnaissance, a review of the CNDDDB (CDFW 2020), CNPS 8th edition online inventory (CNPS 2020), Natural Resource Conservation Service soil data (NRCS 2020), 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 above.

Vegetation was mapped directly onto a 200-scale (1"=200') aerial photograph following the currently accepted List of Vegetation Alliances and Associations (or Natural Communities List). The list is based on A Manual of California Vegetation, Second Edition (MCVII), which is the California expression of the National Vegetation Classification. All flora and fauna identified in the Study Area during vegetation mapping was included in a floral and faunal compendium prepared for the Project. Vegetation communities not listed under the above-mentioned vegetation classification systems were named based on the dominant plant species present. 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	2021 Survey Dates	Biologists
Focused Burrowing Owl Surveys	3/17, 4/7, 4/28, 5/19	AN
General Biological Surveys	3/14	JF
Focused Plant Surveys	3/14, 4/5, 4/26	JF
Vegetation Mapping	3/14	JF
Jurisdictional Delineation/MSHCP Riverine/Riparian/Vernal Pool Habitat Assessment	2/28	CW/LLG
Los Angeles Pocket Mouse Habitat Assessment	7/19	PV

AN = April Nakagawa, JF = Jason Fitzgibbon, CW = Chris Waterston, LLG = Lesley Lokovic-Gamber; PV = Philippe Vergne (ENVIRA)

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

- Listing through the Federal and/or State Endangered Species Act (ESA);
- Occurrence in the CNPS Rare Plant Inventory (Rank 1A/1B, 2A/2B, 3, or 4); and/or
- Occurrence in the CNDDDB inventory; and/or
- Those with additional survey and/or conservation requirements under the MSHCP

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

- Listing through the Federal and/or State ESA;
- Designation by the State as a Species of Special Concern (SSC) or California Fully Protected (CFP) species; and/or
- Those with additional survey and/or conservation requirements under the MSHCP.

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 habitat.

## **2.2 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 surveys; (4) vegetation mapping according to Holland (1986); and (5) habitat assessments and focused surveys for special-status plants (including those with MSHCP requirements).

### **2.2.1 Literature Search**

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

- California Native Plant Society, Rare Plant Program. Inventory of Rare and Endangered Plants of California (online edition, v8-03 0.39) (CNPS 2021); and
- CNDDDB for the USGS 7.5' quadrangles: Perris, California and surrounding quadrangles (CDFW 2021).

### **2.2.2 Vegetation Mapping**

Vegetation communities within the Project site were mapped according to Holland (1986) when possible. Plant communities were mapped in the field directly onto a 200-scale (1"=200') aerial photograph. A vegetation map is included as Exhibit 8. Representative site photographs are included as Exhibit 10.

### **2.2.3 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 (2021) and the MSHCP (Dudek 2003).

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.

## **2.2.4 Botanical Surveys**

GLA biologist Jason Fitzgibbon visited the site on March 14, April 4, and April 26, 2021 to conduct general and focused plant surveys. Surveys were conducted in accordance with accepted botanical survey guidelines (CDFG 2009, CNPS 2001, USFWS 2000). As applicable, surveys were conducted at appropriate times based on precipitation and flowering periods. An aerial photograph, a soil map, and/or a topographic map were used to determine the community types and other physical features that may support sensitive and uncommon taxa or communities within the Project site. Surveys were conducted by following meandering transects within target areas of suitable habitat. All plant species encountered during the field surveys were identified and recorded following the above-referenced guidelines adopted by CNPS (2010) and CDFW by Nelson (1984).<sup>1</sup> A complete list of the plant species observed is provided in Appendix A. Scientific nomenclature and common names used in this report follow Baldwin et al (2012), and Munz (1974).

## **2.3 Wildlife Resources**

Wildlife species were evaluated and detected during field surveys by sight, call, tracks, and scat. Site reconnaissance was conducted in such a manner as to allow inspection of the entire Project site by direct observation, including the use of binoculars. Observations of physical evidence and direct sightings of wildlife were recorded in field notes during the visit. 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 Crocodylians 6<sup>th</sup> Edition, Collins and Taggart (2009) for amphibians and reptiles, and the American Ornithologists' Union Checklist 7<sup>th</sup> Edition (2009) for birds. The methodology (including any applicable survey protocols) utilized to conduct general surveys, habitat assessments, and/or focused surveys for special-status animals are included below.

### **2.3.1 General Surveys**

#### ***Birds***

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

#### ***Mammals***

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

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<sup>1</sup> Please note that, although 2021 botanical surveys were conducted, it is considered as a drought year. Negative survey results may require follow-up surveys or species occurrence information from appropriate reference sites.

## ***Reptiles and Amphibians***

During the general biological survey 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.

### **2.3.2 Special-Status Wildlife 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.

### **2.3.3 Habitat Assessment for Special Status Wildlife Species**

GLA biologist Jason Fitzgibbon conducted habitat assessments for special-status animal species on March 14, 2021. 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.

### **2.3.4 Focused Surveys for Special-Status Wildlife Species**

#### **Burrowing Owl**

The Project site is located within the MSHCP Burrowing Owl (*Athene cunicularia*) Survey Area. GLA biologist April Nakagawa 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 February 1 and August 31. Within areas of suitable habitat, the MSHCP also requires a focused burrow survey to map all potentially suitable burrows. The focused burrow survey was conducted on March 17, 2021. Focused burrowing owl surveys were conducted on March 17, April 7, April 28, and May 19, 2021. The burrowing owl survey visits are 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 focused owl surveys were conducted during weather that was conducive to observing owls outside of their burrows and detecting burrowing owl sign, 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 2-3-4 for survey condition details.

Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Exhibit 6 identifies the burrowing owl survey areas at the Project site. 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. Transect locations are provided on Exhibit 6, along with the 500-foot buffer area. Table 2-2 summarizes the burrowing owl survey visits. The results of the burrowing owl surveys are documented in Section 4 of this report.

**Table 2-2. Summary of Burrowing Owl Surveys**

Survey Date	Biologist	Start/End Time	Start/End Temperature (°F)	Start/End Wind Speed (mph)	Cloud Cover (%)
3/17/2021	AN	0645/0905	34/53	0/1	0
4/07/2021	AN	0630/0840	53/60	0/0	40
4/28/2021	AN	0615/0830	46/59	3/5	0
5/19/2021	AN	0600/0810	53/56	2/4	100

AN = April Nakagawa

### **Los Angeles Pocket Mouse**

A 0.28-acre portion of the Project site is located within the MSHCP Mammal Survey Area, specifically for the LAPM (*Perognathus longimembris brevinasus*). ENVIRA Biologist Philippe Vergne conducted a habitat assessment for the LAPM for all suitable habitat areas within the Project site on July 19, 2021. Focused surveys were not conducted for the LAPM. The results of the LAPM habitat assessment are documented in Section 4.0 of this report.

### **2.4 Jurisdictional Waters**

Prior to beginning the field delineation, a color aerial photograph, a topographic base map of the property, the previously cited USGS topographic map, and a soils map were examined to determine the locations of potential areas of Corps, Regional Board, and CDFW jurisdiction. Suspected jurisdictional areas were field checked for evidence of stream activity and/or wetland vegetation, soils and hydrology. Where applicable, reference was made to the 2008 Field Guide to the Identification of the Ordinary High Water Mark (OHWM) in the Arid West Region of the Western United States (OWHM Manual)<sup>2</sup> to identify the width of Corps jurisdiction and suspected federal wetland habitats on the site were evaluated using the methodology set forth in the U.S. Army Corps of Engineers 1987 Wetland Delineation Manual<sup>3</sup> (Wetland Manual) and the 2008 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Arid

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

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

West Supplement (Arid West Supplement).<sup>4</sup> Reference was also made to the 2019 State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State (State Board Wetland Definition and Procedures) to identify suspected State wetland habitats.<sup>5</sup> While in the field, the limits of jurisdiction were recorded using sub-meter GPS technology and/or recorded on a color aerial photograph using visible landmarks. Other data were recorded into field notebooks, and each location of the point where data was collected was recorded using GPS technology with sub-meter accuracy.

## **2.5 MSHCP Riparian/Riverine Areas and Vernal Pools**

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

The MSHCP defines riparian/riverine areas as:

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

The MSHCP defines vernal pools as:

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

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

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

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

<sup>5</sup> State Water Resources Control Board. 2019. State Wetland Definition and Procedures for Discharges of Dredged or Fill Material to Waters of the State.

inundated; whether the site contained soils associated with vernal/seasonal pools; and whether the site supported plants that suggested areas of localized ponding.

### **3.0 REGULATORY SETTING**

The proposed Project is subject to state and federal 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; other special-status species which are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities.

#### **3.1 State and/or Federally Listed Plants or Animals**

##### **3.1.1 State of California Endangered Species Act**

California's Endangered Species Act (CESA) defines an endangered species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease." The State defines a threatened species as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an Endangered species in the foreseeable future in the absence of the special protection and management efforts required by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the Federal Endangered Species Act (FESA), CESA does not list invertebrate species.

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

### **3.1.2 Federal Endangered Species Act**

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

### **3.1.3 State and Federal Take Authorizations for Listed Species**

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

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).
- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCP) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.
- Sections 2090-2097 of the CESA require that the state lead agency consult with CDFW on projects with potential impacts on state-listed species. These provisions also require CDFW to coordinate consultations with USFWS for actions involving federally listed as well as state-listed species. In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

### **3.1.4 Take Authorizations Pursuant to the MSHCP**

The Western Riverside County MSHCP was adopted on June 17, 2003, and an Implementing Agreement (IA) was executed between the federal and state wildlife agencies and participating entities. The MSHCP is a comprehensive habitat conservation-planning program for western

Riverside County. The intent of the MSHCP is to preserve native vegetation and meet the habitat needs of multiple species, rather than focusing preservation efforts on one species at a time. As such, the MSHCP is intended to streamline review of individual projects with respect to the species and habitats addressed in the MSHCP, and to provide for an overall Conservation Area that would be of greater benefit to biological resources than would result from a piecemeal regulatory approach. The MSHCP provides coverage (including take authorization for listed species) for special-status plant and animal species, as well as mitigation for impacts to sensitive species pursuant to Section 10(a) of the FESA.

Through agreements with the 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**

#### **3.2.1 CEQA Guidelines Section 15380**

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

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

#### *Federally Designated Special-Status Species*

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

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

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

#### *State-Designated Special-Status Species*

Some mammals and birds are protected by the state as Fully Protected (SFP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California SSC are designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's 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**

<b>CNPS Rank</b>	<b>Comments</b>
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.
<b>Extension</b>	<b>Comments</b>
.1 – Seriously endangered in California	Species with over 80% of occurrences threatened and/or have a high degree and immediacy of threat.
.2 – Fairly endangered in California	Species with 20-80% of occurrences threatened.
.3 – Not very endangered in California	Species with <20% of occurrences threatened or with no current threats known.

### 3.3 Jurisdictional Waters

#### 3.3.1 Army Corps of Engineers

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

- (a) Jurisdictional waters. For purposes of the Clean Water Act, 33 U.S.C. 1251 et seq. and its implementing regulations, subject to the exclusions in paragraph (b) of this section, the term “waters of the United States” means:

- (1) The territorial seas, and waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including waters which are subject to the ebb and flow of the tide;*
- (2) Tributaries;*
- (3) Lakes and ponds, and impoundments of jurisdictional waters; and*
- (4) Adjacent wetlands.*

- (b) Non-jurisdictional waters. The following are not “waters of the United States”:

- (1) Waters or water features that are not identified in paragraph (a)(1), (2), (3), or (4) of this section;*
- (2) Groundwater, including groundwater drained through subsurface drainage systems;*
- (3) Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;*
- (4) Diffuse stormwater run-off and directional sheet flow over upland;*
- (5) Ditches that are not waters identified in paragraph (a)(1) or (2) of this section, and those portions of ditches constructed in waters identified in paragraph (a)(4) of this section that do not satisfy the conditions of paragraph (c)(1) of this section;*
- (6) Prior converted cropland;*
- (7) Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease;*
- (8) Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in non-jurisdictional waters, so long as those artificial lakes and ponds are not impoundments of jurisdictional waters that meet the conditions of paragraph (c)(6) of this section;*
- (9) Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;*
- (10) Stormwater control features constructed or excavated in upland or in non-jurisdictional waters to convey, treat, infiltrate, or store stormwater runoff;*
- (11) Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention, and infiltration basins and ponds, constructed or excavated in upland or in non-jurisdictional waters; and*
- (12) Waste treatment systems.*

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

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

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

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

- More than 50 percent of the dominant plant species at the site must be typical of wetlands (i.e., rated as facultative or wetter in the Arid West 2016 Regional Wetland Plant List<sup>6, 7</sup>);
- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and
- Whereas the Wetland Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include a quantitative criteria with the exception for areas with “problematic hydrophytic vegetation”, which require a minimum of 14 days of ponding to be considered a wetland.

### **3.3.2 Regional Water Quality Control Board**

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States<sup>8</sup> and waters of the

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<sup>6</sup> Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. Arid West 2016 Regional Wetland Plant List. Phytoneuron 2016-30: 1-17. Published 28 April 2016.

<sup>7</sup> Note the Corps also publishes a National List of Plant Species that Occur in Wetlands (Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. The National Wetland Plant List: 2016 wetland ratings. Phytoneuron 2016-30: 1-17. Published 28 April 2016.); however, the Regional Wetland Plant List should be used for wetland delineations within the Arid West Region.

<sup>8</sup> Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of

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

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

## 1. State Wetland Definition

The State Board Wetland Definition and Procedures define an area as wetland as follows:

*An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area’s vegetation is dominated by hydrophytes or the area lacks vegetation.*

The following wetlands are waters of the State:

1. *Natural wetlands;*
2. *Wetlands created by modification of a surface water of the state;<sup>9</sup> and*
3. *Artificial wetlands<sup>10</sup> that meet any of the following criteria:*
  - a. *Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;*
  - b. *Specifically identified in a water quality control plan as a wetland or other water of the state;*

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

<sup>9</sup> “Created by modification of a surface water of the state” means that the wetland that is being evaluated was created by modifying an area that was a surface water of the state at the time of such modification. It does not include a wetland that is created in a location where a water of the state had existed historically but had already been completely eliminated at some time prior to the creation of the wetland. The wetland being evaluated does not become a water of the state due solely to a diversion of water from a different water of the state.

<sup>10</sup> Artificial wetlands are wetlands that result from human activity.

- c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or*
- d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):*
  - i. Industrial or municipal wastewater treatment or disposal,*
  - ii. Settling of sediment,*
  - iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,*
  - iv. Treatment of surface waters,*
  - v. Agricultural crop irrigation or stock watering,*
  - vi. Fire suppression,*
  - vii. Industrial processing or cooling,*
  - viii. Active surface mining – even if the site is managed for interim wetlands functions and values,*
  - ix. Log storage,*
  - x. Treatment, storage, or distribution of recycled water, or*
  - xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or*
  - xii. Fields flooded for rice growing.<sup>11</sup>*

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

### **3.3.3 California Department of Fish and Wildlife**

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

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

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<sup>11</sup> Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board's authority to issue or waive waste discharge requirements or take other actions as applicable.

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, 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 entire 55.58-acre Study Area consists of flat topography that is heavily disturbed and dominated by non-native species. Elevations on site average between 1,455 and 1,463 feet above mean sea level (MSL). Historical use of the site is unclear, but it is likely that at one point the site was developed for agricultural purposes, as is evident from the dominant non-native grassland community and typical land use in this region. The Study Area is divided into on-site (northern) and off-site (southern) segments. The on-site segment of the Project contains 48.61 acres of land and the off-site segment of the Project contains 6.97 acres of land. The off-site improvements are located with lands designated as Public/Quasi-Public (PQP) Lands under the MSHCP.

The off-site portion of the Study Area contains one drainage feature, known as the State Department of Water Resources (SDWR) Channel. The SDWR Channel is partially concrete-lined and only accepts runoff in response to direct precipitation (i.e., ephemeral). The majority of storm water flows associated with the SDWR Channel drain towards the Perris Valley Storm Drain.

Although the entire Study Area was assessed for the presence of potentially jurisdictional features and vegetation communities were mapped according to Holland, it is important to note that focused biological survey efforts, including focused plant and animal surveys, were concentrated on areas within the Project footprint.

The National Cooperative Soil Survey (NCSS) has mapped the following soil types as occurring in the general vicinity of the project site (Exhibit 7 – Soils Map):

- Ds2 – Domino fine sandy loam, eroded;
- Dv - Domino silt loam, saline-alkali;
- EnA - Exeter sandy loam, 0 to 2 percent slopes;
- EpA - Exeter sandy loam, deep, 0 to 2 percent slopes; and
- EwB – Exeter very fine sandy loam, 0-+5 percent slopes.

## 4.2 Vegetation

The Study Area supports the following vegetation/land use types: Disturbed/Ruderal and Non-Native Grassland. 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 8. Photographs depicting the various vegetation types and land uses are attached as Exhibit 10.

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

Location	Vegetation Alliances/Land Use Type	Acreage
Onsite	Disturbed/Ruderal	48.61
Offsite	Non-Native Grassland	6.97
<b>Total</b>		<b>55.58</b>

### 4.2.1 Disturbed/Ruderal

The Study Area supports 48.61 acres of disturbed/ruderal area, which is all located on site within the Project footprint. These areas consist of previously disced soils and other areas that have undergone several years of agricultural usage in the form of dryland farming. The disturbed/ruderal areas within the Project site are generally devoid of vegetation or vegetated with weedy species. Weedy species within the disturbed/ruderal portion of the Project include smooth cat’s ears (*Hypochaeris glabra*), stinknet (*Oncosiphon pilulifer*), black mustard (*Brassica nigra*), summer mustard (*Hirschfeldia incana*), London rocket (*Sisymbrium irio*), wild radish (*Raphanus sativus*), red-stemmed filaree (*Erodium cicutarium*), lamb’s quarters (*Chenopodium album*), Russian thistle (*Salsola tragus*), nettle-leaf goosefoot (*Chenopodium murale*), cheeseweed (*Malva parviflora*), prostrate knotweed (*Polygonum aviculare* ssp. *neglectum*), wall barley (*Hordeum vulgare*), slender oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), and foxtail chess (*Bromus rubens*). Native species present in the disturbed/ruderal portion of the Project include wild tarragon (*Artemisia dracunculus*), annual bur-sage (*Ambrosia acanthicarpa*), telegraph weed (*Heterotheca grandiflora*), Menzie’s fiddleneck (*Amsinckia menziesii*), common cryptantha (*Cryptantha intermedia*), California croton (*Croton californicus*), vinegar weed (*Trichostema lanceolatum*), and California sun cup (*Camissoniopsis bistorta*).

### 4.2.2 Non-Native Grassland

The Study Area supports 6.97 acres of non-native grassland. This plant community covers the majority of the off-site portion of the Study Area to the south of the Project footprint. The non-native grassland areas do not appear to be routinely disked or mowed at this time. This area is

primarily dominated by the following non-native species: wall barley (*Hordeum vulgare*), slender oat (*Avena barbata*), ripgut brome (*Bromus diandrus*), and foxtail chess, also referred to as red brome (*Bromus rubens*).

### **4.3 Wildlife**

The following bird species were observed onsite: horned lark (*Eremophila alpestris*), mallard (*Anas platyrhynchos*), rock dove (*Columba livia*), mourning dove (*Zenaida macroura*), American crow (*Corvus brachyrhynchos*), song sparrow (*Melospiza melodia*), savannah sparrow (*Passerculus sandwichensis*), house finch (*Carpodacus mexicanus*), lesser goldfinch (*Spinus psaltria*), Western gull (*Larus occidentalis*), red-winged blackbird (*Agelaius phoeniceus*), Western meadowlark (*Sturnella neglecta*), European starling (*Sturnus vulgaris*), Western bluebird (*Sialia Mexicana*), and Western kingbird (*Tyrannus verticalis*).

The following mammal species were observed onsite: deer mouse (*Peromyscus maniculatus*), Botta's pocket gopher (*Thomomys bottae*), California ground squirrel (*Otospermophilus beecheyi*), and coyote (*Canis latrans*).

The following reptile species were observed onsite: Pacific gopher snake (*Pituophis catenifer*), and Great Basin fence lizard (*Sceloporus occidentalis*).

### **4.4 Special-Status Vegetation Communities (Habitats)**

The CNDDDB identifies the following special-status vegetation communities for the Perris, Riverside East, Sunnymead, El Casco, Lakeview, Winchester, Romoland, Lake Elsinore, and Steele Peak quadrangle maps: southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern riparian scrub, and southern sycamore alder riparian woodland. The Project site does not contain these special-status vegetation types identified by the CNDDDB, nor does it contain suitable habitat to support other special status or sensitive plant communities.

### **4.5 Special-Status Plants**

No special-status plants were detected at the Project site. A focused habitat evaluation was performed on March 14, April 4, and April 26, 2021 and no plants with special status were determined to have potential to occur based on conditions observed at the Project site. Nevertheless, focused plant surveys were conducted on March 14, April 5, and April 26, 2021. No sensitive plants were identified on site.

Table 4-2 provides a list of special-status plants evaluated for the Project site. Species were evaluated based on the following factors: 1) species identified by the CNDDDB as occurring (either currently or historically) on or in the vicinity of the Project Site, 2) MSHCP survey areas, 3) planning species identified by the Mead Valley Area Plan, and 4) any other special-status plants that are known to occur within the vicinity of the property, or for which potentially suitable habitat occurs on site.

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

<b>Species Name</b>	<b>Status</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
Buxbaum's sedge <i>Carex buxbaumii</i>	Federal: None State: None CNPS: Rank 4.2	Bogs and fens, Meadows and seeps (mesic) and marshes and swamps.	This sedge is known from only one location in southern California. There is no potential for the species to be present in the Project site
California Orcutt grass <i>Orcuttia californica</i>	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP(b)	Vernal pools	Not expected.
California screw moss <i>Tortula californica</i>	Federal: None State: None CNPS: Rank 1B.2	Sandy soil in chenopod scrub, and valley and foothill grassland.	Does not occur onsite due to a lack of suitable habitat.
Chaparral ragwort <i>Senecio aphanactis</i>	Federal: None State: None CNPS: Rank 2B.2	Chaparral, cismontane woodland, coastal scrub. Sometimes associated with alkaline soils.	Does not occur onsite due to a lack of suitable habitat. Agricultural use and routine disking have removed any potential for 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.	Not expected.
Coulter's goldfields <i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Federal: None State: None CNPS: Rank 1B.1	Playas, vernal pools, marshes and swamps (coastal salt).	Not expected.
Coulter's matilija poppy <i>Romneya coulteri</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP	Often in burns in chaparral and coastal scrub.	Does not occur onsite due to a lack of suitable habitat
Davidson's saltscale <i>Atriplex serenana</i> var. <i>davidsonii</i>	Federal: None State: None CNPS: Rank 1B.2	Alkaline soils in coastal sage scrub, coastal bluff scrub.	Not expected.
Heart-leaved pitcher sage <i>Lepechinia cardiophylla</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP(d)	Closed-cone coniferous forest, chaparral, and cismontane woodland.	Does not occur onsite 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	Rocky soils in chaparral, coastal sage scrub, valley and foothill grassland.	Does not occur onsite due to a lack of suitable habitat
Jaeger's (bush) milk-vetch <i>Astragalus pachypus</i> var. <i>jaegeri</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP	Sandy or rocky soils in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland.	Does not occur onsite due to a lack of suitable habitat
Little mouseltail <i>Myosurus minimus</i> ssp. <i>apus</i>	Federal: None State: None CNPS: Rank 3.1	Valley and foothill grassland, vernal pools (alkaline soils).	Not expected.

<b>Species Name</b>	<b>Status</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
Long-spined spineflower <i>Chorizanthe polygonoides</i> var. <i>longispina</i>	Federal: None State: None CNPS: Rank 1B.2	Clay soils in chaparral, coastal sage scrub, meadows and seeps, and valley and foothill grasslands	Not expected.
Many-stemmed dudleya <i>Dudleya multicaulis</i>	Federal: None State: None CNPS: Rank 1B.2 MSHCP(b)	Chaparral, coastal sage scrub, valley and foothill grassland. Often occurring in clay soils.	Does not occur onsite due to a lack of suitable habitat
Marsh sandwort <i>Arenaria paludicola</i>	Federal: FE State: SE CNPS: Rank 1B.1	Bogs and fens, freshwater marshes and swamps.	Does not occur onsite due to a lack of suitable habitat
Mud nama <i>Nama stenocarpum</i>	Federal: None State: None CNPS: Rank 2B.2	Marshes and swamps	Does not occur due to a lack of suitable habitat.
Munz's sage <i>Salvia munzii</i>	Federal: None State: None CNPS: Rank 2B.2	Chaparral and coastal sage scrub.	Does not occur onsite due to a lack of suitable habitat
Nevin's barberry <i>Berberis nevinii</i>	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP(d)	Sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub.	Does not occur onsite due to a lack of suitable habitat
Palmer's grapplinghook <i>Harpagonella palmeri</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP	Chaparral, coastal sage scrub, valley and foothill grassland. Occurring in clay soils.	Does not occur onsite due to a lack of suitable habitat
Paniculate tarplant <i>Deinandra paniculata</i>	Federal: None State: None CNPS: Rank 4.2	Usually in vernal mesic, sometimes sandy soils in coastal scrub, valley and foothill grassland, and vernal pools.	Not expected to occur on Project site due to low habitat quality. While marginally suitable habitat occurs onsite, this species is highly detectable and was confirmed absent during focused habitat assessments.
Parish's brittlescale <i>Atriplex parishii</i>	Federal: None State: None CNPS: Rank 1B.1	Chenopod scrub, playas, vernal pools.	Not expected.
Parry's spineflower <i>Chorizanthe parryi</i> var. <i>parryi</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	Does not occur onsite due to a lack of suitable habitat
Payson's jewelflower <i>Caulanthus simulans</i>	Federal: None State: None CNPS: Rank 4.2	Sandy or granitic soils in chaparral and coastal scrub.	Not expected.
Peninsular spineflower <i>Chorizanthe leptotheca</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP	Alluvial fan, granitic. Chaparral, coastal scrub, lower montane coniferous forest.	Does not occur onsite due to a lack of suitable habitat

Species Name	Status	Habitat Requirements	Potential for Occurrence
Plummer's mariposa lily <i>Calochortus plummerae</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP	Granitic, rock soils within chaparral, cismontane woodland, coastal sage scrub, lower montane coniferous forest, valley and foothill grassland.	Does not occur onsite 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	Chaparral, coastal sage scrub	Does not occur onsite due to a lack of suitable habitat
Round-leaved filaree <i>California macrophylla</i>	Federal: None State: None CNPS: Rank 1B.1	Clay soils in cismontane woodland, valley and foothill grassland	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	Coastal dune, coastal salt marshes and swamps.	There are no known occurrences for this species outside of the Santa Ana River for this species. The Project site does not provide suitable habitat.
Salt Spring checkerbloom <i>Sidalcea neomexicana</i>	Federal: None State: None CNPS: Rank 2B.2	Mesic, alkaline soils in chaparral, coastal sage scrub, lower montane coniferous forest, Mojavean desert scrub, and playas.	Although the Project site supports saline/alkaline soils, there are no natural vegetation communities present and all portions of the site are routinely mowed or disked.
San Bernardino aster <i>Symphotrichum defoliatum</i>	Federal: None State: None CNPS: Rank 1B.2	Cismontane woodland, coastal scrub, lower montane coniferous forest, meadows and seeps, marshes and swamps, valley and foothill grassland (vernally mesic).	Does not occur onsite due to a lack of suitable habitat
San Diego ambrosia <i>Ambrosia pumila</i>	Federal: FE State: None CNPS: Rank 1B.2	Chaparral, coastal sage scrub, valley foothill grassland, riparian pools. Often disturbed habitats.	Not expected.
San Diego sagewort <i>Artemisia palmeri</i>	Federal: None State: None CNPS: Rank 4.2	Sandy and mesic soils in chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland.	Does not occur onsite due to a lack of suitable habitat
San Jacinto Valley crownscale <i>Atriplex coronata</i> var. <i>notatior</i>	Federal: FE State: None CNPS: Rank 1B.1 MSHCP: MSHCP (d)	Alkaline soils in chenopod scrub, valley and foothill grassland, vernal pools.	Not expected.
Slender-horned spineflower <i>Dodecahema leptoceras</i>	Federal: FE State: SE CNPS: Rank 1B.1 MSHCP(b)	Sandy soils in alluvial scrub, chaparral, cismontane woodland.	Does not occur onsite due to a lack of suitable habitat

<b>Species Name</b>	<b>Status</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
Small-flowered microsaris <i>Microseris douglasii</i> ssp. <i>platycarpa</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP	Cismontane woodland, coastal sage scrub, valley and foothill grassland, vernal pools. Occurring on clay soils.	Does not occur onsite due to a lack of suitable habitat
Small-flowered morning-glory <i>Convolvulus simulans</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP	Chaparral (openings), coastal sage scrub, valley and foothill grassland. Occurring on clay soils and serpentinite seeps.	Does not occur onsite 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 grasslands, disturbed habitats.	Not expected.
Snake cholla <i>Cylindropuntia californica</i> var. <i>californica</i>	Federal: None State: None CNPS: Rank 1B.1	Chaparral, coastal sage scrub.	Does not occur onsite due to a lack of suitable habitat
South coast saltscale <i>Atriplex pacifica</i>	Federal: None State: None CNPS: Rank 1B.2	Coastal bluff scrub, coastal dunes, coastal sage scrub, playas.	Does not occur onsite due to a lack of suitable habitat
Southern California black walnut <i>Juglans californica</i>	Federal: None State: None CNPS: Rank 4.2 MSHCP	Chaparral, cismontane woodland, coastal sage scrub, alluvial surfaces.	Does not occur onsite due to a lack of suitable habitat
Spreading navarretia <i>Navarretia fossalis</i>	Federal: FT State: None CNPS: Rank 1B.1	Vernal pools, playas, chenopod scrub, marshes and swamps (assorted shallow freshwater).	Not expected.
Thread-leaved brodiaea <i>Brodiaea filifolia</i>	Federal: FT State: SE CNPS: Rank 1B.1	Clay soils in chaparral (openings), cismontane woodland, coastal sage scrub, playas, valley and foothill grassland, vernal pools.	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	Coastal dunes, coastal sage scrub, valley and foothill grassland (saline flats and depressions), vernal pools.	Does not occur onsite due to a lack of suitable habitat
Woven-spored lichen <i>Texosporium sancti-jacobi</i>	Federal: None State: None CNPS: Rank 3	On soil, small mammal pellets, dead twigs, and on <i>Selaginella</i> spp. Chaparral (openings).	Does not occur onsite due to a lack of suitable habitat
Wright's trichocoronis <i>Trichocoronis wrightii</i> var. <i>wrightii</i>	Federal: None State: None CNPS: Rank 2B.1	Alkaline soils in meadows and seeps, marshes and swamps, riparian scrub, vernal pools.	Not expected.
Yucaipa onion <i>Allium marvinii</i>	Federal: None State: None CNPS: Rank 1B.1 MSHCP(b)	Chaparral (clay, openings).	Does not occur onsite due to a lack of suitable habitat

## **Status**

### **Federal**

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

### **State**

SE – State Endangered  
ST – State Threatened

### **CNPS**

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

### **CNPS Threat Code extension**

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

### **MSHCP**

MSHCP = No additional action necessary  
MSHCP(a) = Surveys may be required as part of wetlands mapping  
MSHCP(b) = Surveys may be required within the Narrow Endemic Plant Species survey area  
MSHCP(c) = Surveys may be required within locations shown on survey maps  
MSHCP(d) = Surveys may be required within Criteria Area  
MSHCP(e) = Conservation requirements identified in species-specific conservation objectives need to be met before classified as a Covered Species  
MSHCP(f) = Covered species when a Memorandum of Understanding is executed with the Forest Service Land  
Not Covered = Species not adequately conserved under MSHCP  
None = Species not considered for conservation coverage under MSHCP

## **Occurrence**

- Absent – The species is absent from the site either due to a lack of suitable habitat or because the species was 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 onsite based on suitable habitat, however its presence/absence could not be confirmed.
- Present – The species was detected onsite incidentally or through focused surveys.

### **4.5.1 Special-Status Plants Detected at the Project Site**

No special-status plant species were detected at the Project site during focused habitat assessments and surveys.

## **4.6 Special-Status Animals**

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, and 2) applicable MSHCP

survey areas, and 3) any other special-status animals that are known to occur within the vicinity of the Study Area, for which potentially suitable habitat occurs on the site.

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

<b>Species Name</b>	<b>Status</b>	<b>Habitat Requirements</b>	<b>Potential for Occurrence</b>
<b>Invertebrates</b>			
California cuckoo bee <i>Paranomada californica</i>	Federal: None State: None	Nest parasite of other solitary ground-nesting bees.	Does not occur within the Project site due to lack of suitable habitat.
Crotch bumble bee <i>Bombus crotchii</i>	Federal: None State: SSC MSHCP: None	Relatively warm and dry sites, including the inner Coast Range of California and margins of the Mojave Desert.	Does not occur within the Project site due to lack of suitable habitat.
Quino checkerspot butterfly <i>Euphydryas editha quino</i>	Federal: FE State: None MSHCP	Larval and adult phases each have distinct habitat requirements tied to host plant species and topography. Larval host plants include <i>Plantago erecta</i> and <i>Castilleja exserta</i> . Adults occur on sparsely vegetated rounded hilltops and ridgelines and are known to disperse through disturbed habitats to reach suitable nectar plants.	Not expected to occur onsite due to a lack of suitable habitat.
Riverside fairy shrimp <i>Streptocephalus woottoni</i>	Federal: FE State: None MSHCP(a)	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	Does not occur onsite due to a lack of suitable habitat. The Project site does not support shallow ponds or vernal pools.
Vernal pool fairy shrimp <i>Branchinecta lynchi</i>	Federal: FT State: None MSHCP(a)	Seasonal vernal pools	Does not occur onsite due to a lack of suitable habitat. The Project site does not support shallow ponds or vernal pools.
<b>Amphibians</b>			
Western spadefoot <i>Spea hammondi</i>	Federal: None State: SSC	Seasonal pools in coastal sage scrub, chaparral, and grassland habitats.	Does not occur within the Project site due to lack of suitable habitat.
<b>Reptiles</b>			
California glossy snake <i>Arizona elegans occidentalis</i>	Federal: None State: SSC MSHCP: Not Covered	Occurs interior coast range and southwestern desert regions	Does not occur within the Project site due to lack of suitable habitat.
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	Does not occur within the Project site due to lack of suitable habitat.

Species Name	Status	Habitat Requirements	Potential for Occurrence
		grassland, oak woodland, and riparian woodlands.	
Coast patch-nosed snake <i>Salvadora hexalepis virgultea</i>	Federal: None State: SSC	Occurs in coastal chaparral, desert scrub, washes, sandy flats, and rocky areas.	Does not occur onsite due to a lack of suitable habitat.
Coastal whiptail <i>Aspidoscelis tigris stejnegeri (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 within the Project site due to lack of suitable habitat.
Orange-throat whiptail <i>Aspidoscelis hyperythra</i>	Federal: None State: WL	Coastal sage scrub, chaparral, non-native grassland, oak woodland, and juniper woodland.	Does not occur within the Project site due to 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 within the Project site due to lack of suitable habitat.
San Diego banded gecko <i>Coleonyx variegatus abboti</i>	Federal: None State: SSC	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 within the Project site due to lack of suitable habitat.
Western pond turtle <i>Emys marmorata</i>	Federal: None State: SSC	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 within the Project site due to lack of suitable habitat.

<b>Birds</b>			
Bald eagle (nesting & wintering) <i>Haliaeetus leucocephalus</i>	Federal: Delisted State: SE, FP 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.
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.	Confirmed absent during focused surveys.
California horned lark <i>Eremophila alpestris actia</i>	Federal: None State: WL	Occupies a variety of open habitats, usually where trees and large shrubs are absent.	Occurs on site in a foraging role only.
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 within the Project site due to lack of suitable habitat.
Golden eagle (nesting & wintering) <i>Aquila chrysaetos</i>	Federal: None State: FP MSHCP	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Low potential to occur onsite for foraging.
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 within the Project site due to lack of suitable habitat.
Loggerhead shrike (nesting) <i>Lanius ludovicianus</i>	Federal: None State: SSC MSHCP	Forages over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs.	Moderate potential to occur on site in a foraging role; however, the site does not contain suitable nesting habitat (e.g. shrubs, trees).

Long-eared owl (nesting) <i>Asio otus</i>	Federal: None State: SSC	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.
Northern harrier (nesting) <i>Circus cyaneus</i>	Federal: None State: SSC MSHCP	A variety of habitats, including open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands.	Moderate potential to occur on site in a foraging role; however, the site does not contain suitable nesting habitat (e.g. shrubs, trees).
Southern California rufous-crowned sparrow <i>Aimophila ruficeps canescens</i>	Federal: None State: WL	Grass covered hillsides, coastal sage scrub, and chaparral.	Does not occur within the Project site due to lack of suitable habitat.
Southwestern willow flycatcher (nesting) <i>Empidonax traillii extimus</i>	Federal: FE State: SE 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.
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 within the Project site due to lack of suitable habitat.
Western snowy plover (nesting) <i>Charadrius alexandrinus nivosus</i>	Federal: FT State: SSC	Sandy or gravelly beaches along the coast, estuarine salt ponds, alkali lakes, and at the Salton Sea.	Does not occur onsite due to a lack of suitable habitat.
Western yellow-billed cuckoo (nesting) <i>Coccyzus americanus occidentalis</i>	Federal: FT State: SE 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: FP MSHCP	Low elevation open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Dense canopies used for nesting and cover.	Low potential to occur onsite for foraging. No shrubs or trees for nesting.
Yellow warbler (nesting) <i>Setophaga petechia</i>	Federal: None State: SSC MSHCP	Breed in lowland and foothill riparian woodlands dominated by cottonwoods, alders, or willows and other small trees and shrubs typical of low, open-canopy riparian woodland. During migration, forages in woodland, forest, and shrub habitats.	Does not occur onsite due to a lack of suitable habitat.

Yellow-breasted chat (nesting) <i>Icteria virens</i>	Federal: None State: SSC MSHCP	Dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories.	Does not occur onsite due to a lack of suitable habitat.
Yellow-headed blackbird (nesting) <i>Xanthocephalus xanthocephalus</i>	Federal: None State: SSC	Breed and roost in freshwater wetlands with dense, emergent vegetation such as cattails. Often forage in fields, typically wintering in large, open agricultural areas.	Does not occur onsite due to a lack of suitable habitat.
<b>Mammals</b>			
American badger <i>Taxidea taxus</i>	Federal: None State: SSC MSHCP: Not covered	Most abundant in drier open stages of most scrub, forest, and herbaceous habitats, with friable soils.	Does not occur onsite due to a lack of suitable habitat. The entire site was surveyed for burrowing owl burrows and badger burrows were confirmed absent.
Dulzura pocket mouse <i>Chaetodipus californicus femoralis</i>	Federal: None State: SSC	Coastal scrub, grassland, and chaparral, especially at grass-chaparral edges	Not expected to occur.
Los Angeles pocket mouse <i>Perognathus longimembris brevinasus</i>	Federal: None State: SSC MSHCP: MSHCP(c)	Fine, sandy soils in coastal sage scrub and grasslands.	Assumed present in the 0.28-acre portion of the Project which is within the MSHCP mammalian survey area; other areas already covered under MSHCP and impact in these areas would be considered as less than significant under CEQA.
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.	Low potential to occur within the Project site.
Pocketed free-tailed bat <i>Nyctinomops femorosaccus</i>	Federal: None State: SSC WBWG: M	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(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	Does not occur within the Project site due to lack of suitable habitat.

		sage scrub but needs open habitats.	
San Diego desert woodrat <i>Neotoma lepida intermedia</i>	Federal: None State: SSC MSHCP	Occurs in a variety of shrub and desert habitats, primarily associated with rock outcrops, boulders, cacti, or areas of dense undergrowth.	Does not occur onsite due to a lack of suitable habitat.
Southern grasshopper mouse <i>Onychomys torridus ramona</i>	Federal: None State: SSC MSHCP: Not covered	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	Does not occur within the Project site due to lack of suitable habitat.
Stephens' kangaroo rat <i>Dipodomys stephensi</i>	Federal: FE State: ST MSHCP: MSHCP	Open grasslands or sparse shrublands with less than 50% vegetation cover during the summer.	Not expected to occur. Covered by SKR HCP as well.
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.	Low to Moderate potential to forage onsite. No suitable roosting habitat present.
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.	Not expected to occur

## Status

### **Federal**

FE – Federally Endangered  
FT – Federally Threatened  
FPT – Federally Proposed Threatened  
FC – Federal Candidate  
SSC – Species of Special Concern

### **State**

SE – State Endangered  
ST – State Threatened  
SC – State Candidate  
CFP – California Fully-Protected Species

### **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 conserved under MSHCP  
None = Species not considered for conservation coverage under MSHCP

## **Occurrence**

- Absent – The species is absent from the site, either because the site lacks suitable habitat for the species, the site is located outside of the known range of the species, or focused surveys has confirmed the absence of the species.
- 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 onsite based on suitable habitat, however its presence/absence could not be confirmed.
- Present – The species was detected onsite incidentally or through focused surveys.

### **4.6.1 Special-Status Wildlife Species Observed within the Project Site**

#### **Los Angeles Pocket Mouse**

**Los Angeles Pocket Mouse (*Perognathus longimembris brevinasus*)** – The LAPM is designated as a SSC and is a covered species under the MSHCP. The LAPM prefers fine, sandy soils and may utilize these soil types for burrowing. Vegetation communities associated with LAPM habitat include non-native grassland, Riversidean sage scrub, Riversidean alluvial fan sage scrub, and chaparral. Urbanization, agriculture, sand and gravel mining, and flood control projects are serious threats to the LAPM. Loss of and disruptions in the continuity of drainages and alluvial fan habitats that support patchy distributions of the species probably results in isolation of local populations and preclude or limit the amount of genetic exchange between populations. Such isolation can result in loss of genetic drift resulting in loss of heterogeneity in the populations, leaving small local populations at high risk of extirpation (Jameson 1988).

ENVIRA Consulting performed a habitat assessment for the LAPM on July 19, 2021. Based on existing site conditions and positive survey results in areas of like habitat within the immediately surrounding area, presence of the LAPM is being assumed within the 0.28-acre portion of the Project site located in the MSHCP Mammalian Survey Area. The remaining Project site (48.33 acres on site and 6.97 acres off site) is not within the LAPM survey area and would be granted MSHCP coverage. The presence of LAPM within this portion of the Project site would be considered as less than significant under CEQA as mitigation would have already been performed through MSHCP per-acre impact fee payments.

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

##### **Mammals**

**Northwestern San Diego Pocket Mouse (*Chaetodipus fallax fallax*)** – The northwestern San Diego pocket mouse is designated as an SSC and is a covered species under the MSHCP. The northwestern San Diego pocket mouse inhabits coastal sage scrub, sage scrub/grassland ecotones, and chaparral communities. It inhabits open, sandy areas of both the Upper and Lower Sonoran life-zones of southwestern California and northern Baja California (McClenaghan 1983). Like other small mammals in the area, the San Diego pocket mouse is threatened with habitat fragmentation, degradation, and development.

The northwestern San Diego pocket mouse has low potential to occur in areas on site where the presence of the LAPM is assumed as well as areas adjacent to it. There are 48.61 acres of suitable habitat on site and 6.97 acres of suitable foraging habitat off site for this species.

**Western Mastiff Bat (*Eumops perotis californicus*)** – The western mastiff bat is designated as a CDFW SSC and WBWG high priority. The western mastiff bat ranges from central California southeastward to southern Nevada, central Arizona, and west Texas, and south through northern Baja California, northern Sinaloa, and Zacatecas. The western mastiff bat is apparently a permanent resident in the U.S. This species mainly roosts in crevices and shallow caves on the sides of cliffs and rock walls, and occasionally buildings. Roosts usually high above the ground with unobstructed approach. Most roosts are not used throughout the year and individuals may alternate between different day roosts (Constantine, D. G. 1998).

This species is known to occur in the vicinity of the Project site and is expected to forage over the Project site, but no suitable habitat is present for roosting.

##### **Birds**

##### **Loggerhead Shrike (*Lanius ludovicianus*)**

The loggerhead shrike is designated as a CDFW California Species of Special Concern when nesting. In California, the species is found throughout the foothills and lowlands of California as a resident (Zeiner *et al.* 1990). Winter migrants are found coastally, north of Mendocino county

(Zeiner *et al.* 1990). The loggerhead shrike seems to have always been most abundant in the southern and western portions of its range (Cade and Woods 1997).

The loggerhead shrike is known to forage over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs (Unitt 1984; Yosef 1996). Individuals like to perch on posts, utility lines and often use the edges of denser habitats (Zeiner, *et al.* 1990). In some parts of its range, pasture lands have been shown to be a major habitat type for this species, especially during the winter season (Yosef 1996) and breeding pairs appear to settle near isolated trees or large shrubs (Yosef 1994). The highest density occurs in open-canopied valley foothill hardwood, valley foothill hardwood-conifer, valley foothill riparian, pinyon-juniper, juniper, desert riparian, and Joshua tree habitats; it occurs only rarely in heavily urbanized areas but is often found in open cropland (Zeiner *et al.* 1990). In many regions, indices of the loggerhead shrike abundance correlate with the percentage of pastureland available (Gawlik and Bildstein 1993).

The loggerhead shrike was once widely distributed and common over most of North America, occupying an exclusive breeding range with no other shrikes (Cade and Woods 1997). Although it occurs in a wide variety of plant associations, this shrike is generally found in landscapes characterized by widely spaced shrubs and low trees interspersed with short grasses, forbs, and bare ground, habitat conditions which are currently being developed (Cade and Woods 1997). Most populations along the coastal plains of Southern California have been displaced by urban development, although the subspecies occupying the region (*L. l. gambeli*) is not yet in danger of extirpation (Morrison 1981).

The loggerhead shrike is a covered species under the MSHCP with no survey conditions. The species has a moderate potential to forage within the Project site. The Project site supports approximately 48.61 acres of potential foraging habitat on site and 6.97 acres off site (for a total of 55.58 acres) for loggerhead shrike in the form of disturbed/ruderal areas and/or non-native grassland vegetation.

### **Northern Harrier (*Circus cyaneus*)**

The northern harrier is designated as a CDFW California Species of Special Concern when nesting. In California, the northern harrier occurs from annual grassland up to lodgepole pine and alpine meadow habitats, as high as 3,000 meters (10,000 feet) (Garrett and Dunn 1981). It is a permanent resident of the northeastern plateau and coastal areas; it is a less common resident of the Central Valley. It is a widespread winter resident and migrant in suitable habitat. Some individuals migrate into California; others migrate through to Central America or northern South America (Garrett and Dunn 1981).

The northern harrier frequents open wetlands, wet and lightly grazed pastures, old fields, dry uplands, upland prairies, mesic grasslands, drained marshlands, croplands, shrub-steppe, meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands and is seldom found in wooded areas (Bent 1937; MacWhirter and Bildstein 1996). It uses tall

grasses and forbs in wetlands, or at wetland/field borders for cover; it roosts on the ground (Bent 1937). The home range usually includes fresh water. It is mostly found in flat, or hummocky, open areas of tall, dense grasses, moist or dry shrubs, and edges for nesting, cover, and feeding (Bent 1937). While it seems to prefer to nest in the vicinity of marshes, rivers, or ponds, it may be found nesting in grassy valleys or on grass and sagebrush flats many miles from the nearest water (Call 1978). In a shrub-steppe habitat, the northern harrier was determined to use riparian and cultivated habitats disproportionately (Martin 1987). In general, it prefers saltwater marshes, wet meadows, sloughs, and bogs for its nesting and foraging habitat and if these are absent, it hunts open fields and is frequently observed hunting over agricultural areas (Call 1978). The California population has decreased in recent decades (Grinnell and Miller 1944, Remsen 1978), but can be locally abundant where suitable habitat remains free of disturbance, especially from intensive agriculture. In both wetland and upland areas, the densest populations typically are associated with large tracts of undisturbed habitats dominated by thick vegetative growth (MacWhirter and Bildstein 1996).

The destruction of wetland habitat, native grassland, and moist meadows, and burning and plowing of nesting areas during early stages of the breeding cycle, are major reasons for the decline of the northern harrier (Remsen 1978). MacWhirter and Bildstein (1996) summarize the threats as follows. The continued widespread destruction of freshwater and estuarine wetlands in the United States poses a threat to the breeding and wintering populations. Conversion of native grassland prairies for monotypic farming has contributed to local population declines. In upland areas, mechanized agriculture and early mowing have increased the threat of nest destruction. Overgrazing of pastures, and the advent of larger crop fields and fewer fence rows, together with the widespread use of insecticides and rodenticides, have reduced prey availability and thus the amount of appropriate Habitat for the species.

The northern harrier is a covered species under the MSHCP with no survey conditions. This species was observed foraging on the Project site during field studies but no potential for nesting to occur. This species requires very low levels of disturbance for nesting. The Project site supports 48.61 acres of potential foraging habitat (disturbed/ruderal vegetation) on site and 6.97 acres of suitable foraging habitat off site for this species.

The northern harrier is a covered species under the MSHCP with no survey conditions. The species has a moderate potential to forage within the Project site. The Project site supports approximately 48.61 acres of potential foraging habitat on site and 6.97 acres off site (for a total of 55.58 acres) for the northern harrier in the form of disturbed/ruderal areas and/or non-native grassland vegetation.

### **Golden Eagle (*Aquila chrysaetos*)**

This bird of prey occurs widely in California, and forages in grassland and open savannah of many types. It tolerates considerable variation in topography and elevation. It prefers to hunt moderate-sized prey, especially California Ground Squirrels and rabbits, but will occasionally take larger prey, such as Mule Deer (*Odocoileus hemionus*) fawns. It is very sensitive to human disturbance. Species occurs in the region as a migrant and winter visitor. The project site appears to provide suitable foraging habitat, although the amount of small mammal prey is

limited due to existing agricultural and land management activities. There is no potential for this species to nest on or adjacent to the Project site as it is sensitive to human disturbance and the site lacks ledges used for nest placement. Approximately 48.61 acres of potential foraging habitat on site and 6.97 acres off site (for a total of 55.58 acres) is present for golden eagle.

#### **White-tailed Kite (*Elanus leucurus*)**

This species hunts in open lands vegetated with grasses and low-growing shrubs. This species has no potential to nest as it requires low trees and/or large shrubs, which the site lacks; however, this species has a moderate potential to forage within the Project site. There is an estimated 48.61 acres of potential foraging habitat on site and 6.97 acres off site (for a total of 55.58 acres) in the form of disturbed/ruderal areas and non-native grassland vegetation.

### **4.6.3 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 California Species of Special Concern at burrow sites and some wintering sites. Zeiner *et al.* (1990) describe the distribution, abundance, and seasonality of the burrowing owl within California as follows. It is a year-long resident formerly common in appropriate habitats throughout the state, excluding the humid northwest coastal forests and high mountains. In California, burrowing owls are restricted to the central valley extending from Redding south to the Grapevine, east through the Mojave Desert and west to San Jose, the San Francisco Bay area, the outer coastal foothills area which extend from Monterey south to San Diego and the Sonoran desert (Grinnell and Miller 1944). It is a resident in the open areas of the lowlands over much of the Southern California region (Garrett and Dunn 1981).

The burrowing owl occurs in shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), prairies, coastal dunes, desert floors, and some artificial, open areas as a year-long resident (Haug, *et al.* 1993). They may also use golf courses, cemeteries, road allowances within cities, airports, vacant lots in residential areas and university campuses, fairgrounds, abandoned buildings, and irrigation ditches (Haug, *et al.* 1993). They may also occur in forb and open shrub stages of pinyon-juniper and ponderosa pine habitats (Zeiner, *et al.* 1990). They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. As a critical habitat feature need, they require the use of rodent or other burrows for roosting and nesting cover. They may also dig their own burrow in soft, friable soil (as found in Florida) and may also use pipes, culverts, and nest boxes where burrows are scarce (Robertson 1929). The mammal burrows are modified and enlarged. One burrow is typically selected for use as the nest; however, satellite burrows are usually found within the immediate vicinity of the nest burrow within the defended territory of the owl.

Threats to the burrowing owl include conversion of grassland to agriculture, other habitat destruction, predators, collisions with vehicles, and pesticides/poisoning of ground squirrels

(Grinnell and Miller 1944, Zarn 1974, Remsen 1978). A ranking by the resource agencies of the most important threats to the species included loss of habitat, reduced burrow availability due to rodent control, and pesticides (James and Espie 1997).

The burrowing owl was formerly common in appropriate habitats throughout the state, excluding the humid northwest coastal forests and high mountains. Population numbers have markedly reduced in recent decades (James and Ethier 1989; Zeiner *et al.* 1990). The primary threats to the species include the loss of natural habitat due to urban development and agriculture and the expressed effects of insecticides and rodenticides within occupied habitat. The loss of burrowing mammal colonies (due to rodenticides or other means) and the crushing of burrows by heavy equipment and ground maintenance machinery remain problematic. This species is usually associated with flat or shallow slopes on loamy soils; these areas are also attractive to agriculture, as well as residential and industrial development. Shooting losses may be significant (Remsen 1978).

The burrowing owl received official status as Endangered in Canada as of 1986. Burrowing owls have gone from locally common to virtually extirpated in Minnesota in 50 years (Johnsgard 1988). The number of burrowing owl breeding pairs in central, western, and Southern California have drastically declined in the last 50 years; during the 1980's the decline was probably greater than 70 percent (DeSante and Ruhlen 1995). The species appears to be seriously threatened with extirpation from central, western, and Southern California because of the extent and intensity of development (DeSante and Ruhlen 1995).

The burrowing owl was confirmed absent from the Project site based on focused surveys conducted during the 2021 breeding season. Refer to [Exhibit 6 – Burrowing Owl Survey Results Map] for the locations of potential burrowing owl burrows that were found absent of burrowing owl. No sign or detection of burrowing owl was made during any field work performed for this Project.

#### **4.6.4 Critical Habitat**

The Project site is not located within USFWS designated or proposed Critical Habitat.

#### **4.7 Raptor Use**

The Project site provides suitable foraging habitat for a number of raptor species, including special-status raptors.

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

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

It is important to understand that the MSHCP does not provide Migratory Bird Treaty Act (MBTA) and Fish and Game Code take for raptors covered under the Plan.

There were no hawks and/or falcons detected over the course of the field studies; however, many common hawk and falcon species, as well as great horned owl (*Bubo virginianus*) and barn owl (*Tyto alba*) may be present for foraging purposes only, as no suitable nesting habitat (large shrubs, trees, marshland) is present within the Project site. The ferruginous hawk migrates through the region in spring/fall and may overwinter in the area.

#### **4.8 Nesting Birds**

While the Project site does not contain trees or shrubs, it does contain ground cover that may provide suitable habitat for nesting migratory birds. Impacts to nesting birds (take of active nests, nest failure due to disturbance) are prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.<sup>12</sup>

Birds anticipated to nest on the Project site would be those that are common to ruderal, agricultural lands that are routinely mechanically disturbed such as killdeer (*Charadrius vociferus*) and savannah sparrow (*Passerculus sandwichensis*).

#### **4.9 Jurisdictional Delineation**

The Study Area includes disturbed/ruderal land and non-native grassland which has undergone several years of agricultural dry farming. Elevations onsite average between 1,455 and 1,463 feet above mean sea level (MSL). The Study Area contains one drainage feature, Drainage A [also known as the SDWR Channel]. The SDWR Channel is partially concrete and only accepts runoff in response to direct precipitation (i.e., ephemeral). The majority of storm water flows associated with the SDWR Channel drain towards the Perris Valley Storm Drain.

##### **A. Corps Jurisdiction**

No Corps jurisdiction is present as the drainage feature in the Study Area is ephemeral. The Corps defines an ephemeral stream as “a surface water flowing or pooling only in direct response to precipitation (e.g., rain or snow fall)”.

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<sup>12</sup> 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.

This feature only flows in direct response to precipitation; therefore, this feature meets the definition of an ephemeral stream contained in Corps' regulations at 33 CFR 328.3(c)(3). Under the Corps' NWPR, ephemeral streams are considered as non-jurisdictional waters pursuant to 33 CFR 328.3(b)(3).

Section 33 CFR 328.3(b) states as follows:

*(b) Non-jurisdictional waters. The following are not "waters of the United States":*

- (1) Waters or water features that are not identified in paragraph (a)(1), (2), (3), or (4) of this section;*
- (2) Groundwater, including groundwater drained through subsurface drainage systems;*
- (3) Ephemeral features, including ephemeral streams, swales, gullies, rills, and pools;*
- (4) Diffuse stormwater run-off and directional sheet flow over upland;*
- (5) Ditches that are not waters identified in paragraph (a)(1) or (2) of this section, and those portions of ditches constructed in waters identified in paragraph (a)(4) of this section that do not satisfy the conditions of paragraph (c)(1) of this section;*
- (6) Prior converted cropland;*
- (7) Artificially irrigated areas, including fields flooded for agricultural production, that would revert to upland should application of irrigation water to that area cease;*
- (8) Artificial lakes and ponds, including water storage reservoirs and farm, irrigation, stock watering, and log cleaning ponds, constructed or excavated in upland or in non-jurisdictional waters, so long as those artificial lakes and ponds are not impoundments of jurisdictional waters that meet the conditions of paragraph (c)(6) of this section;*
- (9) Water-filled depressions constructed or excavated in upland or in non-jurisdictional waters incidental to mining or construction activity, and pits excavated in upland or in non-jurisdictional waters for the purpose of obtaining fill, sand, or gravel;*
- (10) Stormwater control features constructed or excavated in upland or in nonjurisdictional waters to convey, treat, infiltrate, or store stormwater runoff;*
- (11) Groundwater recharge, water reuse, and wastewater recycling structures, including detention, retention, and infiltration basins and ponds, constructed or excavated in upland or in non-jurisdictional waters; and*
- (12) Waste treatment systems. [Emphasis Added]*

## **B. Regional Water Quality Control Board Jurisdiction**

Regional Board jurisdiction associated with the Study Area totals 0.47 acres, none of which consist of wetland waters of the State. A total of 1,350 linear feet of stream is present. All drainage features are considered waters of the State only.

Regional Board jurisdiction within the Study Area includes the SDWR Channel which is located within the SDWR Property. This feature is not subject to Corps jurisdiction under Section 404 of the CWA. Since this feature is not subject to Corps jurisdiction pursuant to Section 404 of the CWA, it is not subject to Regional Board jurisdiction pursuant to Section 401 of the CWA.

However, since SDWR Channel conveys surface flow and/or exhibit wetland characteristics with the potential to support beneficial uses, it is considered to be a water of the State that would be regulated by the Regional Board pursuant to Section 13260 of the CWC/the Porter-Cologne Act.

Table 4-4 below summarizes Regional Board jurisdictional waters at the Study Area. A description of the Regional Board jurisdictional drainage features within the Study Area is outlined below. The boundaries of Regional Board jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 9A]. Site photographs are provided as Exhibit 10.

**Table4-4: Summary of Regional Board Jurisdiction**

<b>Drainage Name</b>	<b>Regional Board Non-Wetland Waters (acres)</b>	<b>Regional Board Jurisdictional Wetlands (acres)</b>	<b>Total Regional Board Jurisdiction (acres)</b>	<b>Length (linear feet)</b>
SDWR Channel	0.47	0	0.47	1,350
<b>Total*</b>	<b>0.47</b>	<b>0</b>	<b>0.47</b>	<b>1,350</b>

\*Sum of individual parts may not equal total sum due to rounding error

SDWR Channel

The SDWR Channel conveys surface water only in direct response to precipitation (i.e., rain). This ephemeral feature is not subject to Regional Board jurisdiction pursuant to Section 401 of the CWA; however, since these features convey surface flow with the potential to support beneficial uses, it is considered to be a Water of the State.

The SDWR Channel enters the Study Area from a culvert beneath Lake Perris Drive. The drainage feature flows from east to west for 1,350 linear feet before leaving the site and passing beneath Evans Road. The SDWR Channel is approximately 16 feet wide and is either unvegetated or dominated by non-native grassland species consisting of Russian thistle (*Salsola tragus*), brome grasses (*Bromus* sp.), mustard (*Brassica nigra*), and stinknet (*Oncosiphon piluliferum*). There also a couple of western sycamore (*Platanus racemosa*) adjacent to the banks of the drainage near Lake Perris Drive. A graphic depicting the limits of Regional Board jurisdiction is attached as Exhibit 9A.

**C. CDFW Jurisdiction**

CDFW jurisdiction associated with the Study Area totals 0.53 acre, of which 0.04 acre consist of riparian stream and 0.49 acre consist of non-riparian stream. A total of 1,350 linear feet of stream is present.

CDFW jurisdiction within the Study Area includes the SDWR Channel which is located within the SDWR Property.

Table 4-5 below summarizes CDFW jurisdictional waters at the Study Area. A description of the CDFW jurisdictional drainage features within the Study Area is outlined below. The boundaries of CDFW jurisdiction are depicted on the enclosed jurisdictional delineation map [Exhibit 9B]. Site photographs are provided as Exhibit 10.

**Table 4-5: Summary of CDFW Jurisdiction**

<b>Drainage Name</b>	<b>CDFW Non-Riparian Stream (acres)</b>	<b>CDFW Riparian Stream (acres)</b>	<b>Total CDFW Jurisdiction (acres)</b>	<b>Length (linear feet)</b>
SDWR Channel	0.49	0.04	0.53	1,350
<b>Total*</b>	<b>0.49</b>	<b>0.04</b>	<b>0.53</b>	<b>1,350</b>

\*Sum of individual parts may not equal total sum due to rounding error

#### SDWR Channel

CDFW jurisdiction associated with the SDWR Channel totals 0.53 acre, of which 0.04 acre consist of riparian stream and 0.49 acre consist of non-riparian stream. A total of 1,350 linear feet of stream is present.

The SDWR Channel conveys surface water only in direct response to precipitation (i.e., rain). This drainage feature is considered to be a Water of the State subject to the CDFW’s jurisdiction. The SDWR Channel enters the Study Area from a culvert beneath Lake Perris Drive. The drainage feature flows from east to west for 1,350 linear feet before leaving the site and passing beneath Evans Road. The SDWR Channel is approximately 16 feet wide and is either unvegetated or dominated by non-native grassland species consisting of Russian thistle (*Salsola tragus*), brome grasses (*Bromus* sp.), mustard (*Brassica nigra*), and stinknet (*Oncosiphon piluliferum*). There also a couple of western sycamore (*Platanus racemosa*) adjacent to the banks of the drainage near Lake Perris Drive. A graphic depicting the limits of CDFW jurisdiction is attached as Exhibit 9B.

#### **4.10 MSHCP Riparian/Riverine Areas and Vernal Pools**

Vegetation communities associated with riparian systems are depleted natural vegetation communities because, similar to coastal sage scrub, they have declined throughout southern California during past decades. In addition, they can 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) because it supports MSHCP covered species. Specifically, the MSHCP states that “riparian/riverine areas are natural lands which contain habitat dominated by trees, shrubs, persistent emergents, or emergent mosses and lichens, which occur close to or which depend upon soil moisture from a nearby fresh water source; or areas with fresh water flow during all or a portion of the year.” Thus, the MSHCP classification of riparian/riverine includes both riparian (depleted natural vegetation communities) as well as ephemeral drainages that are natural in

origin but may lack riparian vegetation. For this analysis, all non-man-made features that qualify as state streambeds are considered MSHCP riparian/riverine resources.

The MSHCP riparian/riverine areas in the Project site is identical to that of CDFW jurisdiction. MSHCP riparian/riverine areas total 0.53 acres, of which, 0.04 acres consist of riparian habitat and 0.49 acres consists of non-riparian riverine habitat [Exhibit 9C – MSHCP Riparian/Riverine Areas].

A riparian/riverine/vernal pool habitat assessment was conducted for the Project on February 28, 2021. The results of this analysis determined that the Project site does not contain any vernal pools. The majority of the Project site consists of flat disturbed/ruderal areas that are not subject to flows and do not exhibit topography that would support vernal pools. Similarly, the adjacent uplands also do not exhibit topography that would support vernal pools.

#### **4.11 MSHCP Public/Quasi-Public Lands**

The Project off site area contains 6.97 acres of PQP Lands designated under the MSHCP.

### **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)**

### **5.1.1 Thresholds of Significance**

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

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

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

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

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

### **5.1.2 Criteria for Determining Significance Pursuant to CEQA**

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

- a) *Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*
- b) *Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*
- c) *Have a substantial adverse effect on 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 Direct Impacts to Native Vegetation**

Table 5-1 provides a summary of proposed impacts to vegetation within the Project site. The proposed Project will permanently impact approximately 48.61 acres of disturbed/ruderal habitat all of which consists of disturbed/ruderal land, and 0.03 acre of non-native grassland habitat. There are no impacts to special-status vegetation communities.

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

<b>Location</b>	<b>Vegetation Alliance/Land Use Type</b>	<b>Permanent Impacts</b>	<b>Temporary Impacts</b>	<b>Avoided</b>
On-site	Disturbed/Ruderal	48.61	0	0
Off-site	Non-Native Grassland	0.03	0	6.94
<b>Total</b>		<b>48.64</b>	0	6.94

Impacts to 48.61 acres of disturbed/ruderal habitat and 0.03 acre of non-native grassland would be a less-than-significant under CEQA as these habitat types are not native vegetation communities and are considered sensitive. Additionally, the Project site is heavily disturbed, regularly disked, and the disturbed/ruderal habitat is composed of non-native plant species, some of which are classified as invasive.

### **5.3 Impacts to Special-Status Plants**

The proposed Project will not impact special-status plants, including the NEPSSA and CAPSSA target species.

### **5.4 Impacts to Special-Status Animals**

#### *Federal and/or State Listed Animals*

The Project site has low potential to support Stephens Kangaroo Rat (SKR) in the on- and off-site habitat areas (disturbed/ruderal habitat [48.61 acres] and non-native grassland [0.03 acre] for a total impact area of 48.64 acres). This species is listed as federally Endangered and is state listed as Threatened. The Project would permanently remove 48.64 acres of potential habitat. This would be a potentially significant impact under CEQA. However, the Project site occurs within the SKR Habitat Conservation Plan (RCHCA 1996) and with fee payment to this HCP, these potentially significant impacts would be fully mitigated and reduced to a level of less than significant.

#### *Non-Listed Special-Status Animals*

The Project would result in the loss of foraging habitat for golden eagle, loggerhead shrike, white-tailed kite, northern harrier, and western mastiff bat, as well as live-in habitat for the LAPM and Northwestern San Diego Pocket Mouse. The Project would permanently remove 48.64 acres of habitat for these species in their respective roles. As discussed, the lands are routinely disked and generally support disturbed, non-native habitats. The proposed impacts would be less than significant due to the heavily disturbed condition of the property and the relatively low level of sensitivity of the species. Additionally, all of these species are Covered Species under the MSHCP, with any potential impacts mitigated under the Plan.

As documented in Section 4.6.3, the Project site is not currently occupied by burrowing owl and based on this, the Project would not impact this species. However, the site has the potential to support burrowing owls in the future based on the presence of numerous suitable burrows and expansive foraging habitat and the mercurial nature of burrowing owl. The MSHCP requires a preconstruction survey for burrowing owls to ensure that projects would not result in the direct harm of owls. Section 6.0 of this report provides a measure to ensure consistency with the MSHCP and to ensure no direct impact to burrowing owl would occur by the Project.

The Project is assumed to impact the LAPM within the 0.28-acre portion of the Project site which is within the MSHCP Mammal Survey Area. The remaining Project impact area (48.33 acres on site and 0.03 acre off site) is not within the LAPM survey area and does not require survey efforts, nor would it require the conservation of occupied habitat. Project-related impacts to portions of the Project site outside of the Mammal Survey Area would be considered as less than significant under CEQA as mitigation would have already been performed through MSHCP per-acre impact fee payments.

The mitigation for the permanent impact to the 0.28 acre portion of the MSHCP Mammal Survey Area is proposed to be mitigated through one-time non-native removal/maintenance of a minimum of 1:1 ratio (0.28-acre) of habitat within the RCA Conservation Area and/or within PQP Lands. Refer to Section 6.0 for details.

The proposed Project would remove 48.64 acres of potential foraging habitat (48.61 acres of disturbed/ruderal habitat and 0.03 acre of non-native grassland) for one special-status bat, the western mastiff bat. However, no rock outcrops and no mature trees, representing roosting habitat, are present. Additionally, based on the level of ongoing human disturbance within the Project study area, and the regional availability of foraging habitat in the vicinity of the Project site, such as the Lake Perris State Park and the San Jacinto Wildlife Area, the loss of 48.64 acres of low-quality potential bat foraging habitat is not judged to be significant under CEQA.

### **5.5 Impacts to Raptors**

Raptors (Birds of Prey) include owls, hawks, eagles, and falcons. Common species of raptors (e.g. red-tailed hawk, American kestrel, great horned owl) have potential to forage within the Project footprint. Raptors were not observed nesting within the Project site over the course of the surveys.

The proposed removal of 48.64 acres of potential habitat (48.61 acres of disturbed/ruderal habitat and 0.03 acre of non-native grassland habitat) suitable for raptor foraging within the Project footprint would not be a significant impact under CEQA due to the marginal quality and limited amount of potential foraging habitat removed by the proposed Project. Regardless, although the common raptor species (e.g., American kestrel and Red-tailed Hawk) are not covered under the MSHCP, the biological requirements of these species are expected to be conserved due to the parallel habitat needs with those raptors covered under the Plan.

### **5.6 Impacts to Critical Habitat**

The proposed Project will not impact lands designated or proposed as Critical Habitat by the USFWS.

### **5.7 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. Implementation of a measure identified in Section 6.0 of this report would provide compliance with MBTA and California Fish and Game Code.

Although impacts to native birds are prohibited by MBTA and similar provisions of California Fish and Game Code, impacts to native birds by the proposed Project would not be a significant impact under CEQA. The native birds with potential to nest on the Project site would be those that are common to the region and highly adapted to human landscapes (e.g., savannah sparrow, killdeer). The number of individuals potentially affected by the Project would not significantly

affect regional, let alone local populations of such species. A recommended measure is identified in Section 6.0 of this report to avoid impacts to nesting birds.

## **5.8 Impacts to Jurisdictional Waters**

Based on the Project site plans, there will be no impact to jurisdictional waters. No permanent or temporary impact to waters of the U.S. or waters of the state under Corps, Regional Board or CDFW jurisdiction would occur; therefore, no regulatory permits from any of the resource agencies would be necessary.

### **5.8.1 Impacts to Corps Jurisdiction**

There is no Corps jurisdiction present at the Project site so no impact to Corps jurisdiction would occur.

### **5.8.2 Impacts to Regional Board Jurisdiction**

The Project will not result in temporary or permanent impact to Regional Board jurisdiction; therefore, no regulatory permit from the Regional Board is required.

### **5.8.3 Impacts to CDFW Jurisdiction**

The Project will not result in temporary or permanent impact to CDFW jurisdiction; therefore, no regulatory permit from the CDFW is required.

### **5.8.4 Impacts to MSHCP Riparian/Riverine Areas**

The Project will not result in temporary or permanent impact to MSHCP riparian/riverine habitat areas; therefore, no DBESP for impacting riparian/riverine habitat is required.

## **5.9 Impacts to MSHCP Criteria Cells, Cell Groups, and Linkages**

The Project site is located within the Meade Valley Area Plan of the MSHCP. However, no portion of the Project site is within the Criteria Area or any independent Criteria Cells [Exhibit 12C – MSHCP Impact Map].

The Project will impact 0.03 acre of PQP Lands. Mitigation for impact to these PQP Lands is described in Section 6.0 below.

## **5.10 Impacts to Wildlife Linkages/ Corridors and Nursery Sites**

The Project site does not occur within MSHCP Cores or Linkages and lacks wildlife nursery sites. Based on the lack of vegetation cover and open topography, no impact to wildlife movement would occur. In addition, any potential impacts to wildlife movement would be mitigated by the MSHCP.

## **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. Potential indirect effects associated with development include water quality impacts associated with drainage into adjacent open space/downstream aquatic resources; lighting effects; noise effects; invasive plant species from landscaping; and effects from human access into adjacent open space, such as recreational activities (including off-road vehicles and hiking), pets, dumping, etc. Temporary, indirect effects may also occur as a result of construction-related activities.

The Project would implement measures pursuant to the MSHCP Urban/Wildlands Interface Guidelines (Volume I, Section 6.1.4 of the MSHCP). These guidelines are intended to address indirect effects associated with locating projects (particularly development) in proximity to the MSHCP Conservation Area. To minimize potential edge effects, the guidelines are to be implemented in conjunction with review of individual public and private development projects in proximity to the MSHCP Conservation Area. The Project will implement measures consistent with the MSHCP guidelines to address the following:

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

The Project has the potential for both temporary and permanent indirect effects. Section 6.0 of this report identifies measures to reduce indirect effects to below a level of significance.

### **5.11.1 Drainage**

Proposed Projects in proximity to the MSHCP Conservation Area shall incorporate measures, including measures required through the National Pollutant Discharge Elimination System (NPDES) requirements, to ensure that the quantity and quality of runoff discharged to the MSHCP Conservation Area is not altered in an adverse way when compared with existing conditions. In particular, measures shall be put in place to avoid discharge of untreated surface runoff from developed and paved areas into the MSHCP Conservation Area. Stormwater systems shall be designed to prevent the release of toxins, chemicals, petroleum products, exotic plant materials or other elements that might degrade or harm biological resources or ecosystem processes within the MSHCP Conservation Area. This can be accomplished using a variety of methods including natural detention basins, grass swales or mechanical trapping devices. Regular maintenance shall occur to ensure effective operations of runoff control systems.

The Project's contractor will develop a Stormwater Pollution Prevention Plan (SWPPP) to prevent impacts to water quality during construction. A Water Quality Management Plan (WQMP) will be developed to prevent pollutants from entering the MSHCP Conservation Area

and the San Jacinto River during operation and maintenance of the facility following the completion of construction activities.

### **5.11.2 Toxics**

Land uses proposed in proximity to the MSHCP Conservation Area that use chemicals or generate bioproducts that are potentially toxic or may adversely affect wildlife species, habitat or water quality shall incorporate measures to ensure that application of such chemicals does not result in discharge to the MSHCP Conservation Area. Measures such as those employed to address drainage issues shall be implemented. The proposed Project will implement a SWPPP that will address runoff during construction and a WQMP to address runoff during operation and maintenance of the facility following construction activities.

### **5.11.3 Lighting**

Night lighting shall be directed away from the MSHCP Conservation Area to protect species within the MSHCP Conservation Area from direct night lighting. If night lighting is required during construction, shielding shall be incorporated to ensure ambient lighting in the MSHCP Conservation Area is not increased.

### **5.11.4 Noise**

Proposed noise generating land uses affecting the MSHCP Conservation Area shall incorporate setbacks, berms or walls to minimize the effects of noise on MSHCP Conservation Area resources pursuant to applicable rules, regulations and guidelines related to land use noise standards. For planning purposes, wildlife within the MSHCP Conservation Area should not be subject to noise that would exceed the City of Perris residential noise standards of 65 decibels (dBA). Project-specific measures will be developed to prevent impacts to wildlife from increased noise during construction, operation, and maintenance of the facility.

### **5.11.5 Invasives**

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

### **5.11.6 Barriers**

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

### 5.11.7 Grading/Land Development

The MSHCP states that manufactured slopes associated with development shall not extend into the MSHCP Conservation Area.

### 5.12 Cumulative Impacts to Biological Resources

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

Anticipated cumulative impacts are addressed by the MSHCP, which, as currently adopted, addresses 146 “Covered Species” that represent a broad range of habitats and geographical areas within western Riverside County, including threatened and endangered species and regionally- or locally-sensitive species that have specific habitat requirements and conservation and management needs. The MSHCP addresses biological impacts for take of Covered Species within the MSHCP area. Impacts to Covered Species and establishment and implementation of a regional conservation strategy and other measures included in the MSHCP are intended to address the federal, state, and local mitigation requirements for these species and their habitats. Specifically, Section 4.4 of the MSHCP states that:

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

SKR is listed as Endangered/Threatened and the Project would remove up to 48.64 acres of potential habitat with the potential habitat being judged low in value; however, the removal of 48.64 acres of disturbed/ruderal habitat and non-native grassland habitat, which is considered marginal for the species, would not contribute to the decline of the species and would not be considered as CEQA significant. The species is also fully covered under the SKR HCP, under which potential project-specific and cumulative effects would be reduced to a level of less than significant under CEQA through fee payment to the RCHCA.

The proposed removal of 48.64 acres of potential live-in habitat for LAPM and Northwestern San Diego Pocket Mouse could potentially be a cumulatively significant impact; however, the Northwestern San Diego Pocket Mouse is a covered species under the MSHCP and impacts to this species would be mitigated through participation in the MSHCP which would reduce any significant impact to this species to a less than significant level.

As it relates to the LAPM, only approximately 0.28 acre of the Project is within the LAPM survey area. The remainder of the Project is located outside of the LAPM survey area; therefore, all but 0.28 acre of the Project would be considered covered by the MSHCP. For the remainder of the Project, the proposed *one-time* removal/maintenance of a minimum 1:1 ratio (0.28 acre) of

non-native invasive habitat within the MSHCP Plan Area for the benefit of the Los Angeles Pocket Mouse would reduce potential impacts to this species to a less than significant level. As such, any potential cumulative impacts would be mitigated by the Plan to a less than significant level.

The removal of 48.64 acres of potential foraging habitat for loggerhead shrike, northern harrier, golden eagle, and white-tailed kite would potentially be a cumulatively significant impact. However, each of these species is a fully covered species by the MSHCP and as such any potential cumulative impacts would be mitigated by the Plan through conservation of suitable habitat on a regional scale.

The Project has the potential to impact native bird nests if vegetation is removed during the nesting season (February 1 through August 31). Impacts to nesting native birds are prohibited by the MBTA and California Fish and Game Code. Although impacts to native birds are prohibited by MBTA and similar provisions of California Fish and Game Code (FGC), impacts to native birds by the proposed Project would not make a cumulatively considerable contribution to the regional decline of native nesting birds. The native birds with potential to nest in the Project footprint would be those that are common to the region. The number of individuals potentially affected by the Project would not significantly affect regional populations of such species. A recommended measure is identified in Section 6.2 of this report to comply with provisions of the MBTA and FGC.

The Project would not impact waters of the U.S. or waters of the state, nor would it impact MSHCP riparian/riverine resources (Section 5.8).

There is no potential for cumulative impacts to occur to wildlife migration or wildlife nurseries, as the Project does not support these resources.

## **6.0 MITIGATION/AVIODANCE MEASURES**

The following discussion provides recommendations for 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 recommended to avoid direct impacts to burrowing owls and to ensure consistency with the MSHCP.

- **Pre-Construction Survey.** A 30-day pre-construction survey for burrowing owls is required prior to future ground-disturbing activities (e.g., vegetation clearing, clearing and grubbing, tree removal, site watering, equipment staging, etc.) to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the project site prior to the initiation of ground-disturbing

activities, the project proponent will immediately inform the RCA and the Wildlife Agencies and will need to coordinate in the future with the RCA and the Wildlife Agencies, including the possibility of preparing a Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance. If ground-disturbing activities occur, but the site is left undisturbed for more than 30 days, a pre-construction survey will again be necessary to ensure that burrowing owl have not colonized the site since it was last disturbed. If burrowing owls are found, the same coordination described above will be necessary.

## **6.2 Nesting Birds**

The Project site contains vegetation with the potential to support native nesting birds. As discussed above, the California Fish and Game Code prohibits mortality of native birds, including eggs. The following measure is recommended to avoid mortality to nesting birds. Potential impacts to native birds was not considered a biologically significant impact under CEQA however, to comply with state law, the following is recommended:

- As feasible, vegetation clearing should be conducted outside of the nesting season, which is generally identified as February 1 through August 31. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance of the site, including disking, demolition activities, and grading. If active nests are identified, the biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

## **6.3 Los Angeles Pocket Mouse**

The Project contains a 0.28-acre area along the eastern boundary of the site which is within the MSHCP Mammal Survey Area. The Project has assumed that this portion of the site supports the presence of LAPM; however, all parcels surrounding this area are not within the MSHCP Mammal Survey Area; therefore, would be subject to conservation requirements under the MSHCP. Should it be infeasible to avoid 90% of occupied habitat for the LAPM within the 0.28-acre portion of the Project site within the Mammalian Survey Area, the Project shall cause the *one-time* removal/maintenance of a minimum 1:1 ratio (0.28 acre) of non-native invasive habitat within the MSHCP Conservation Plan Area for the benefit of the Los Angeles Pocket Mouse.

## **6.4 Public/Quasi-Public Lands**

As mitigation to offset permanent impact to 0.03 acre of PQP Lands, the Project will restore impacts to PQP Lands such that there is not a loss of function to PQP Lands. This can be accomplished by seeding the disturbed/ruderal PQP Lands within vegetation native to the Project area once construction of the storm drain line is completed. No monitoring of this impact is necessary as the Project is not expected to result in the loss of PQP Land function.

## **6.5 Invasives**

The Project shall avoid the use of invasive plant species in landscaping, including invasive, non-native plant species listed in *Volume I, Table 6-2* of the MSHCP.

## **6.6 Water Quality**

The Project's contractor will develop a Stormwater Pollution Prevention Plan (SWPPP) to prevent impacts to water quality during construction. A Water Quality Management Plan (WQMP) will be developed to prevent pollutants from entering streambeds during construction activities.

## **6.7 Toxics**

The proposed Project shall implement a SWPPP that will address runoff during construction and a WQMP to address runoff during operation and maintenance following construction activities

## **6.8 Night Lighting**

If the Project is to have lighting during night hours, it shall be directed away from the SDWR Channel. If night lighting is required during construction (during placement or removal of the storm drain), shielding shall be incorporated to ensure ambient lighting in the adjacent SDWR lands is not increased.

## **6.9 Monitoring**

Orange silt fencing will be placed to demarcate the limits of disturbance adjacent to the SDWR Channel. Its placement will be overseen by a biological monitor and all preliminary vegetation removal and initial grading will be monitored by a biologist to ensure no encroachment into the Limits of the SDWR Channel will occur.

## **6.10 Post Construction Seeding**

The disturbance area surrounding the storm drain will be seeded using a native seed mix appropriate to upland areas within Western Riverside County. The seed mix will be applied within one month of completion of the storm drain and within one month following the removal of the storm drain.

## **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 not subject to the Habitat Evaluation and Acquisition Negotiation Strategy (HANS) process. The Project is not within a Criteria Cell and therefore, the Project is not subject to Joint Project Review (JPR) by the RCA. The Project will impact 0.03 acre of PQP Lands. This impact will not change the function of PQP Lands to be impacted, which is an upland habitat function. These areas will be hydroseeded with a native seed mix once the storm drain line has been constructed. Since this hydroseed mix will restore or improve the existing function of the 0.03-acre disturbance area, no habitat mitigation is necessary as this impact would be less than significant.

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

As noted above, the Project will not impact MSHCP riparian/riverine habitat; therefore, no compensatory mitigation is required.

### **7.3 Protection of Narrow Endemic Plants**

Volume I, Section 6.1.3 of the MSHCP requires that within identified NEPSSAs, site-specific focused surveys for Narrow Endemic Plants Species will be required for all public and private projects where appropriate soils and habitat are present.

The proposed Project will not impact Narrow Endemic Plants. Therefore, a DBESP would not be required specific to Narrow Endemic Plant species.<sup>13</sup>

### **7.4 Guidelines Pertaining to the Urban/Wildland Interface**

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

- Drainage;
- Toxics;
- Lighting;
- Noise;
- Invasive species;

---

<sup>13</sup> Please note that, although 2021 botanical surveys were conducted, it is considered as a drought year. Negative survey results may require follow-up surveys or species occurrence information from appropriate reference sites.

- Barriers;
- Grading/Land Development.

As discussed in Section 6.0 of this report, the Project will implement applicable measures as it relates to temporary construction impacts to minimize adverse indirect impacts on special-status resources within Conserved Lands. The proposed Project will be consistent with Section 6.1.4 of the MSHCP.

## **7.5 Additional Survey Needs and Procedures**

Pursuant to Volume I, Section 6.3.2 of the MSHCP, focused surveys were completed for Criteria Area Plants, burrowing owls, and a habitat assessment for the LAPM was conducted. The LAPM was assumed to be present based on the habitat assessment for this species and past surveys in the immediate area which have had positive results. As noted above, MSHCP Objective 6 for burrowing owls requires that pre-construction surveys prior to site grading. As such, the following measure is recommended to avoid direct impacts to burrowing owls and to ensure consistency with the MSHCP:

A qualified biologist will conduct a pre-construction survey for burrowing owls within 30 days of initial ground-disturbing activities (e.g. vegetation clearing, clearing and grubbing, tree removal, site watering) to ensure that no owls have colonized the site in the days or weeks preceding the ground-disturbing activities. If burrowing owls have colonized the project site prior to the initiation of ground-disturbing activities, the Project proponent will immediately inform the Wildlife Agencies and the RCA and will need to coordinate further with RCA and the Wildlife Agencies, including the possibility of preparing a DBESP and/or Burrowing Owl Protection and Relocation Plan, prior to initiating ground disturbance. If ground-disturbing activities occur but the site is left undisturbed for more than 30 days, a pre-construction survey will again be necessary to ensure burrowing owl has not colonized the site since it was last disturbed. If burrow owl is found, the same coordination described above will be necessary.

As LAPM were assumed to be present within a 0.28-acre portion of the Project site, and avoidance of this area is infeasible, then mitigation must be provided and a DBESP will be required. The following measure is recommended to minimize and mitigate the Project effect on the LAPM:

The Project contains a 0.28-acre area along the eastern boundary of the site which is within the MSHCP Mammalian Survey Area. The Project has assumed that this portion of the site supports the presence of LAPM; however, all parcels surrounding this area are not within the MSHCP Mammalian Survey Area. As mitigation for impact to 0.28 acre of area presumed to be occupied by the LAPM, the Project shall cause the one-time removal/maintenance of occupied habitat at a minimum 1:1 ratio (0.28 acre) of non-native invasive habitat within the MSHCP Plan Area for the benefit of the Los Angeles Pocket Mouse.

## **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

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- Stebbins, R.C. 1985. A field guide to western reptiles and amphibians, 2nd ed. Houghton Mifflin Co., Boston, Massachusetts.
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## 9.0 CERTIFICATION

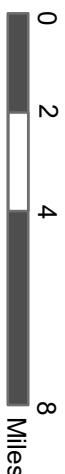
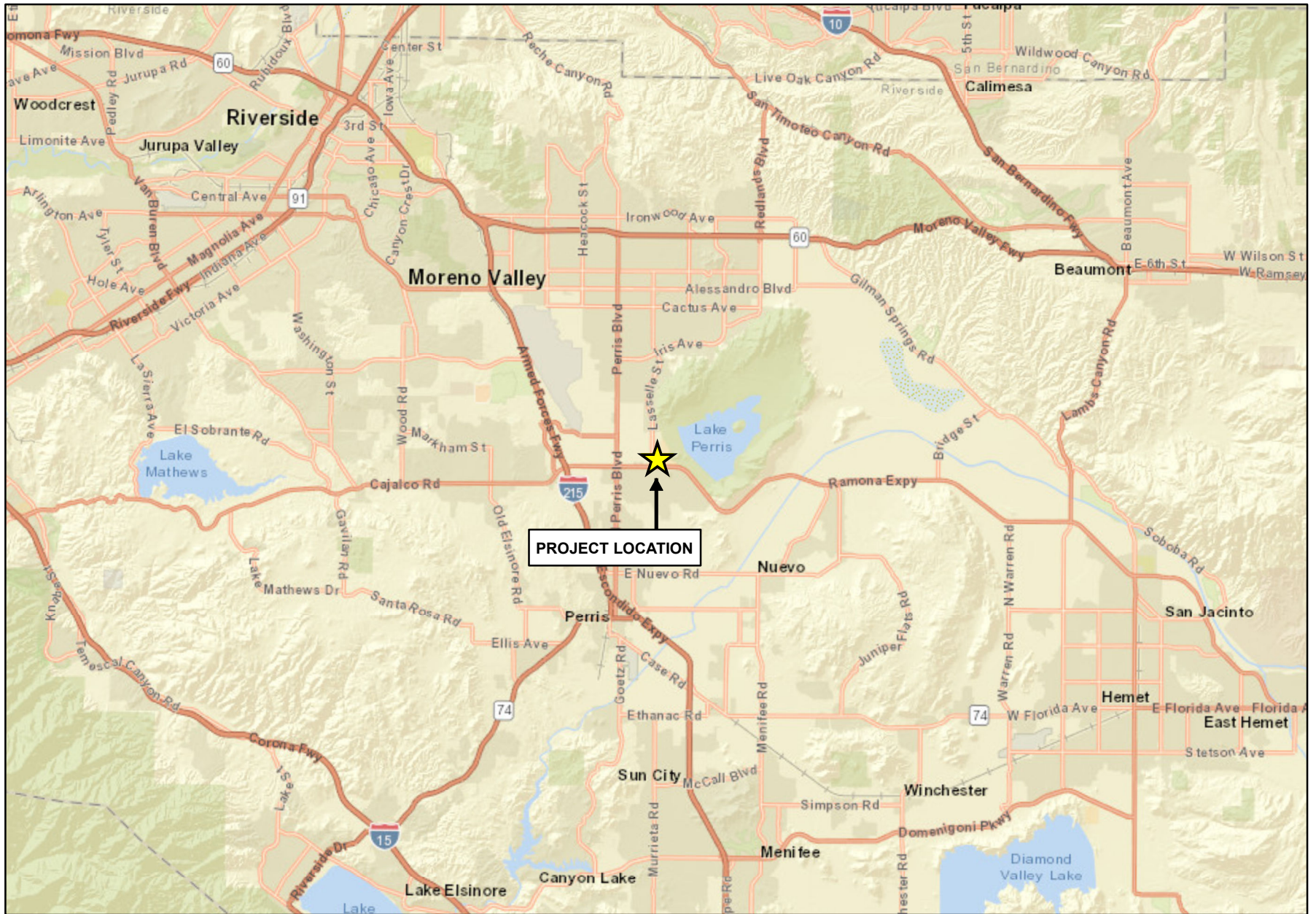
*I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.*

Signed: 

Date: August 13, 2021

p: 0616-16d.biotech.docx

Source: ESRI World Street Map



# STRATFORD RANCH EAST DEVELOPMENT PROJECT

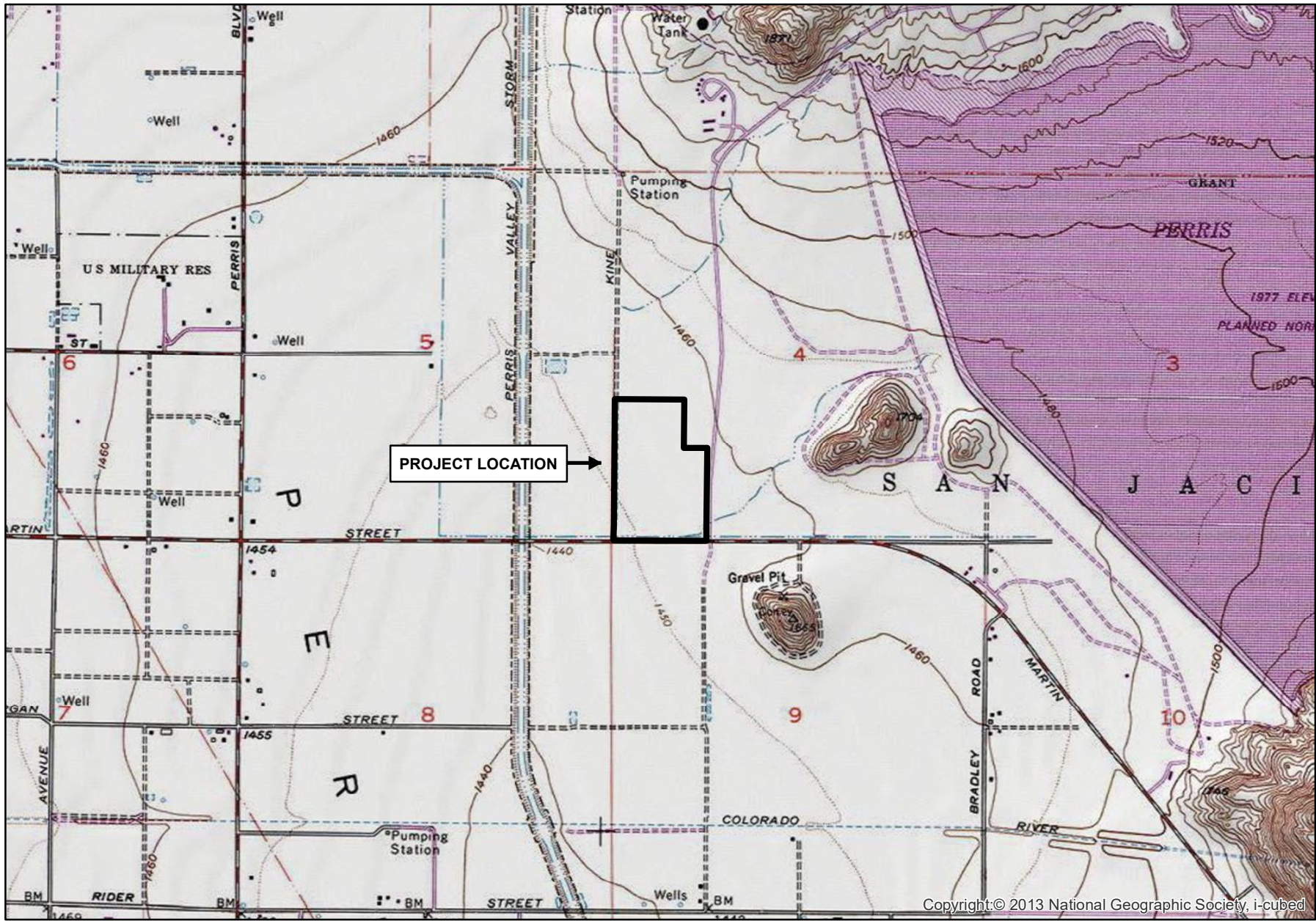
Regional Map

GLENN LUKOS ASSOCIATES



Exhibit 1

Adapted from USGS Perris, CA quadrangle



Copyright © 2013 National Geographic Society, i-cubed

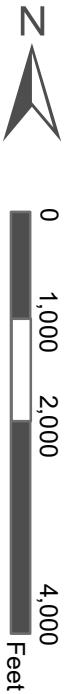
# STRATFORD RANCH EAST DEVELOPMENT PROJECT

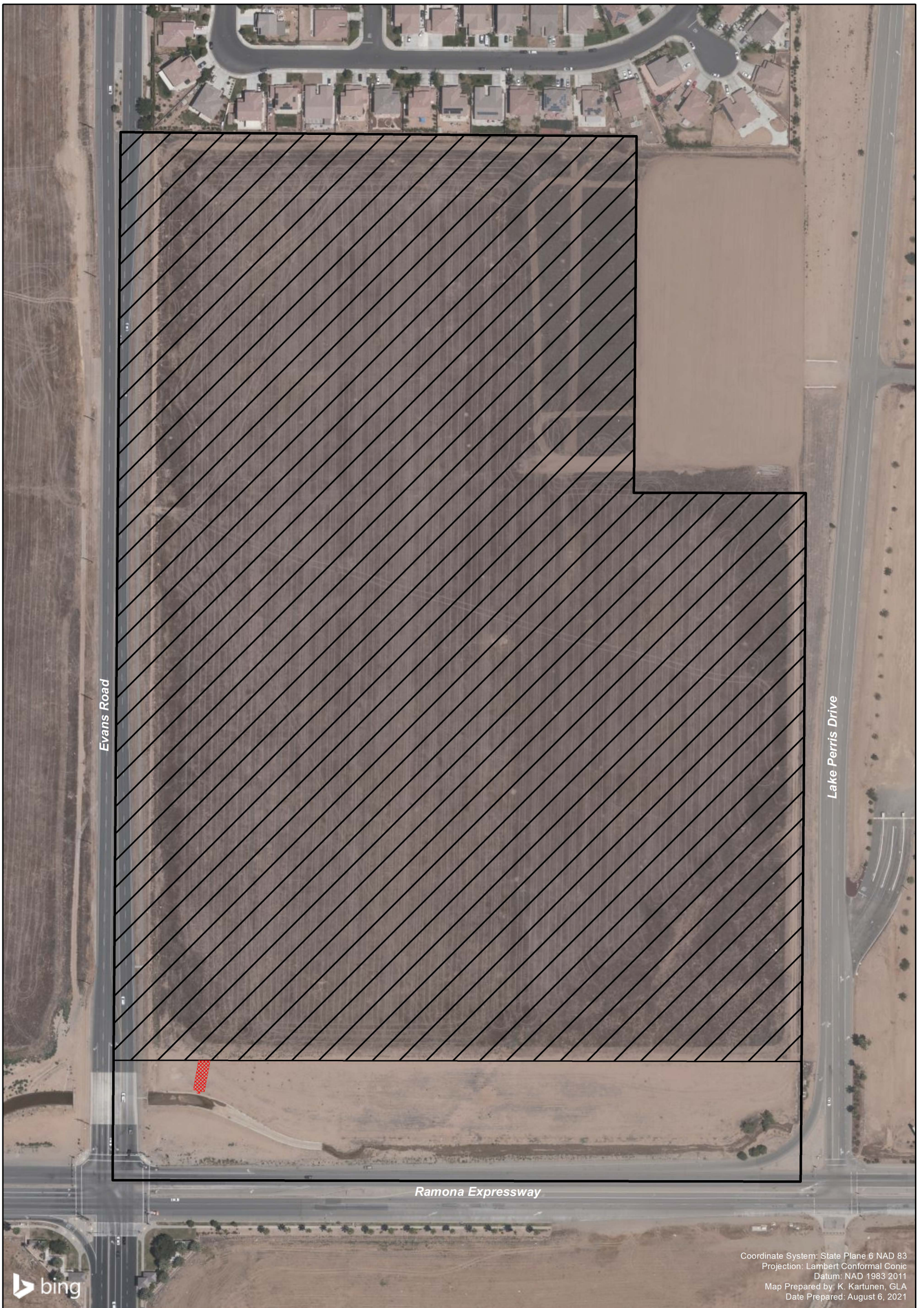
Vicinity Map




GLENN LUKOS ASSOCIATES

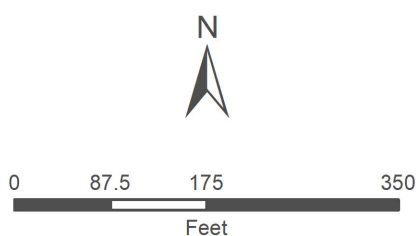


Exhibit 2





-  Study Area
-  Onsite Project Footprint
-  Offsite Project Footprint



1 inch = 175 feet

**STRATFORD RANCH EAST  
DEVELOPMENT PROJECT**

Aerial Map

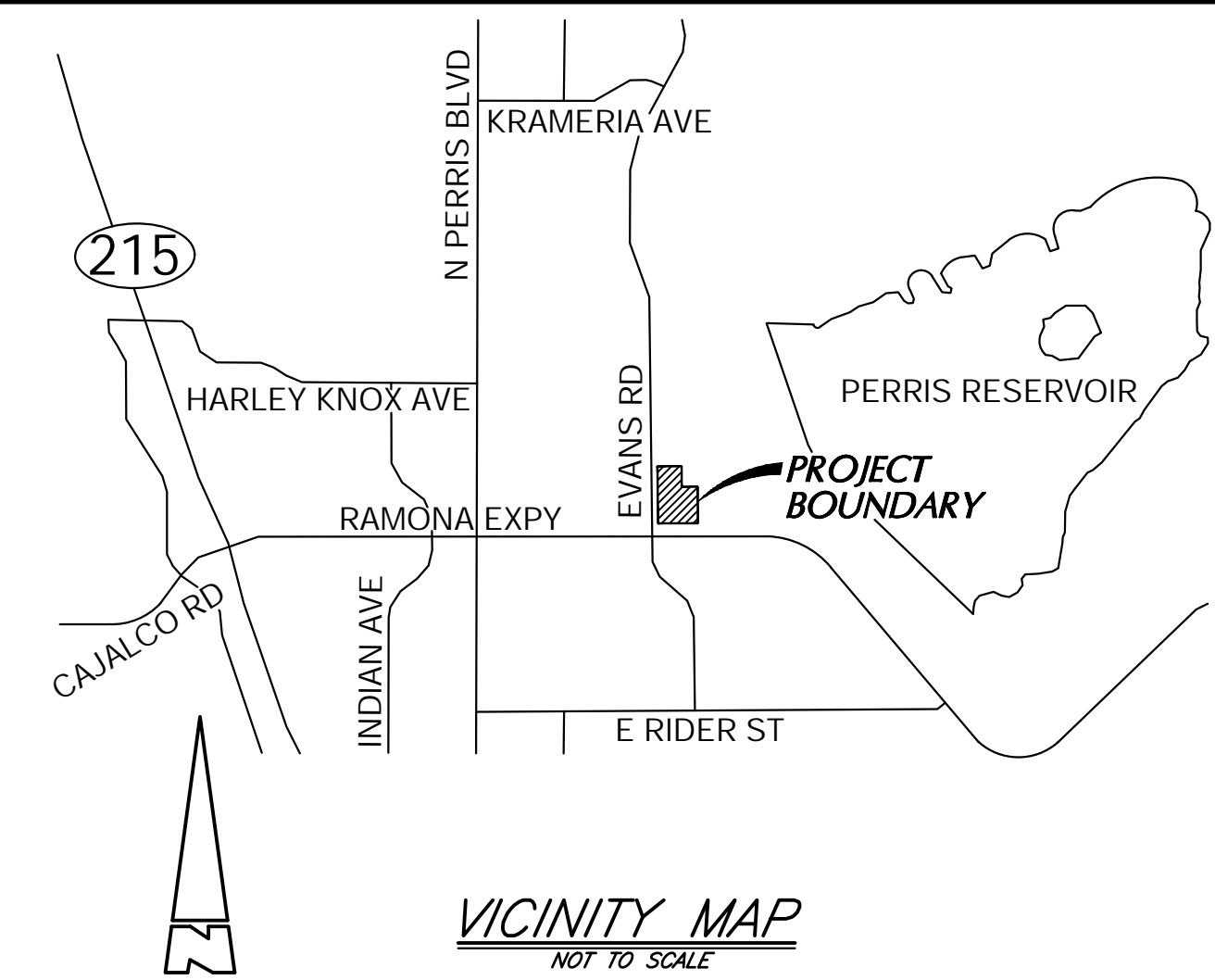
GLENN LUKOS ASSOCIATES



Exhibit 3

# TENTATIVE TRACT MAP NO. 38071

## CITY OF PERRIS, CA



TOTAL SITE ESTIMATED CUT/FILL VOLUMES	
CUT VOLUME	74,994 CY
FILL VOLUME	49,949 CY
RAW TOTAL	26,045 CY CUT
ADJUSTED TOTAL	53 CY CUT (EXPORT)

- NOTES:
- EARTHWORK VOLUMES ARE ESTIMATED BASED ON VERTICAL CUT LINES AT PROPERTY BOUNDARIES.
  - EARTHWORK VOLUMES ASSUMES 12% ADJUSTMENT FOR SHRINKAGE AND 0.10' FOR SUBSIDENCE.
  - ADJUSTED EARTHWORK TOTAL INCLUDES REMEDIAL GRADING.
  - EARTHWORK VOLUMES BASED ON COMPARISON TO EXISTING TOPO DATED 2020

### EASEMENTS:

SEE TITLE REPORT: FIRST AMERICAN TITLE COMPANY, ORDER NO. MASC-6346462 (DG), DATED, OCTOBER 26, 2020. BOUNDARY SHOWN HEREON IS PER FIELD SURVEY. EXISTING EASEMENTS ARE SHOWN ON THIS MAP.

### UTILITY LEGEND

- W — PROPOSED WATER
- S — PROPOSED SEWER
- PROPOSED STORM DRAIN
- W — EXISTING WATER
- S — EXISTING SEWER
- EXISTING STORM DRAIN

### WQMP MEASURES

SEE WQMP CONCEPTUAL SITE PLAN FOR TREATMENT FACILITIES.

### LOT SUMMARY TABLE

Lot No.	Land Use
1-111	RESIDENTIAL LOTS—TRACT 38071-1
112-192	RESIDENTIAL LOTS—TRACT 38071

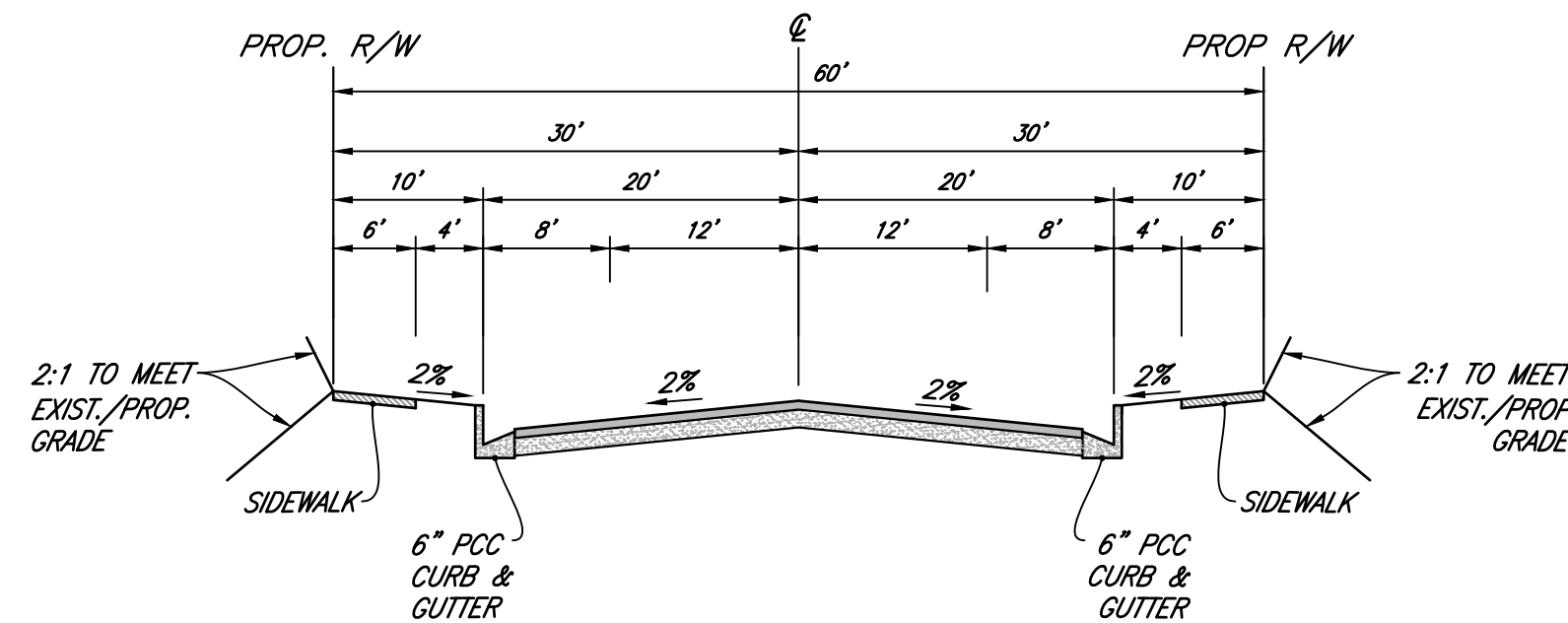
### UTILITY NOTES

- WATER:** EASTERN MUNICIPAL WATER DISTRICT  
2270 TRUMBULE ROAD  
PERRIS, CA 92572  
(951) 928-3777
- SEWER:** EASTERN MUNICIPAL WATER DISTRICT  
2270 TRUMBULE ROAD  
PERRIS, CA 92572  
(951) 928-3777
- GAS:** SOUTHERN CALIFORNIA GAS CO.  
1981 W. LUGONIA AVE.  
REDLANDS, CA. 92374  
(909) 335-7828
- PHONE:** SBC/PACIFIC BELL | GTE (VERIZON)  
1265 N. VAN BUREN SUITE 180 | 150 S. JUANITA ST.  
ANAHEIM, CA. 92807 | HEMET, CA. 92543  
(714) 666-5423 | (951) 672-6518
- ELECTRIC:** SO. CAL. EDISON CO.  
26100 MENIFEE ROAD  
ROMOLAND, CA. 92585  
(951) 928-9207  
(951) 820-5498
- FIRE:** RIVERSIDE COUNTY FIRE DEPARTMENT  
4080 LEMON STREET 2ND FLOOR  
RIVERSIDE, CA. 92502  
(951) 955-4777
- FIBER OPTIC:** LEVEL 3 COMMUNICATIONS  
NETWORK RELOCATIONS DEPARTMENT  
1025 ELDORADO BLVD BLDG 33A-522  
BROOMFIELD, CO 80021  
(720) 888-5688
- SCHOOL DISTRICT:** VAL VERDE UNIFIED SCHOOL DISTRICT

### NOTES

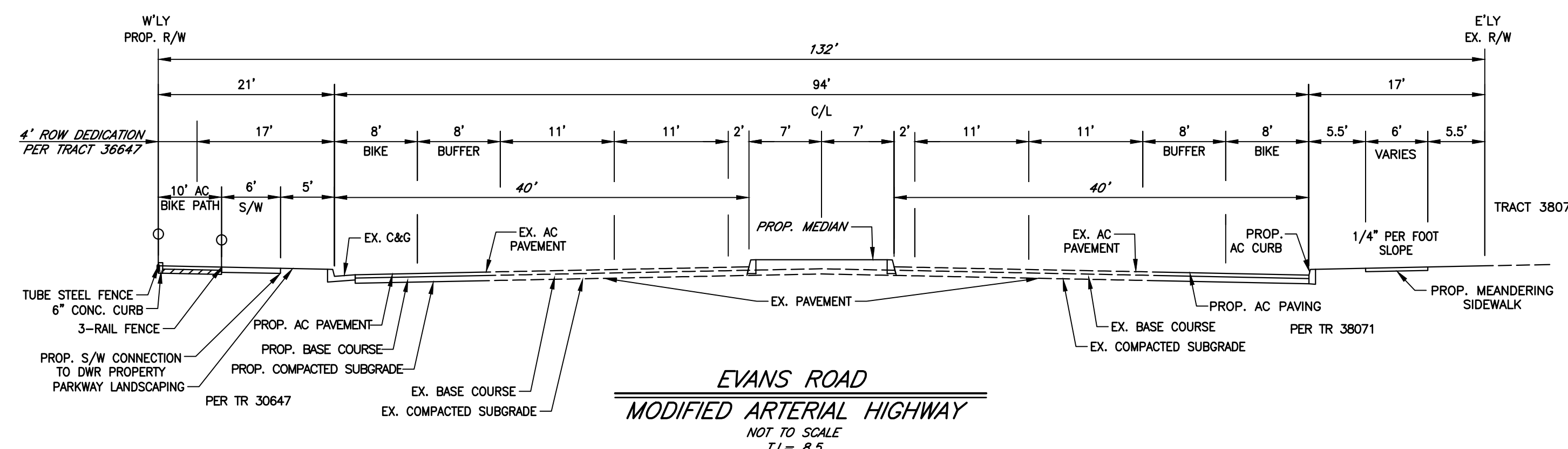
- PREPARED: FEBRUARY 2021
- TOTAL PROJECT GROSS ACREAGE: 48.61 AC.
- MINIMUM RESIDENTIAL LOT SIZE: 6,000 S.F.
- EXISTING GENERAL PLAN DESIGNATION: SPECIFIC PLAN
- PROPOSED GENERAL PLAN DESIGNATION: SINGLE FAMILY RESIDENTIAL R-6,000
- EXISTING LAND USE: VACANT
- PROPOSED LAND USE: SINGLE FAMILY RESIDENTIAL
- EXISTING ZONING: R-10,000
- PROPOSED ZONING: R-6,000
- PROPOSED DENSITY: 4.05 DU/AC GROSS
- ADJACENT LAND USE
- NORTH:
- GENERAL PLAN — SINGLE FAMILY RESIDENTIAL R-6,000  
ZONING — R-6,000  
EXISTING USE — SINGLE FAMILY RESIDENTIAL
- WEST:
- GENERAL PLAN — SINGLE FAMILY RESIDENTIAL R-6,000/PUBLIC  
ZONING — R-6,000  
EXISTING USE — VACANT
- THOMAS BROTHERS GUIDE: RIVERSIDE COUNTY, PAGE 835, GRID G7
- ALL EXISTING EASEMENTS AND IRREVOCABLE OFFERS OF DEDICATION THAT AFFECT THE PROPERTY BEING SUBDIVIDED ARE SHOWN ON THIS TENTATIVE TRACT MAP.
- ALL EXISTING EASEMENTS ARE TO REMAIN IN THEIR DESIGNATED LOCATIONS UNLESS NOTED OTHERWISE.
- THE SUBJECT PROPERTY IS WITHIN SANTA ANA RIVER WATERSHED.
- THE SUBJECT PROPERTY IS WITHIN FLOOD ZONE X PER FIRM MAP 06065C1440H
- ALL PARTIES HAVING A BENEFICIARY INTEREST IN THE PROPERTY BEING SUBDIVIDED ARE AWARE OF AND CONSENT TO THE FILING OF THIS TENTATIVE TRACT MAP.
- ALL OPEN SPACE, PRIVATE DRAINAGE FACILITIES, WATER QUALITY BASINS, AND PARKWAY LANDSCAPING SHALL BE MAINTAINED BY THE CITY'S LMD.
- THIS IS AN APPLICATION FOR A DEVELOPMENT PERMIT.
- AERIAL TOPOGRAPHY PREPARED BY KWC ENGINEERS, 9/15/2020, 1988 DATUM
- APPLICANT/OWNER RESERVES THE RIGHT TO PHASE THE FINAL MAPS
- RESTRICTED ACCESS TO RAMONA EXPRESSWAY LOTS 176-188
- EXISTING PERRY STREET R/W TO BE VACATED.
- LOTS A THROUGH G TO BE DEDICATED TO THE CITY OF PERRIS.

TR38071-1 - 111 LOTS		AREA (SF)		AREA (SF)		AREA (SF)	
LOT	AREA (SF)	LOT	AREA (SF)	LOT	AREA (SF)	LOT	AREA (SF)
1	6484	50	6000	100	6600	148	12779
2	6300	51	6000	101	6885	149	11807
3	6300	52	6000	102	6506	150	6388
4	6300	53	6000	103	7754	151	6000
5	6300	54	6000	104	10085	152	6000
6	6300	55	6000	105	10309	153	6000
7	6300	56	6000	106	7687	154	6000
8	6300	57	6000	107	6359	155	6014
9	6300	58	6487	108	6884	156	6374
10	6300	59	6600	109	6600	157	11038
11	6300	60	6600	110	6600	158	10936
12	6484	61	6885	111	6487	159	6432
13	6484	62	6452	<b>TR38071 - 86 LOTS</b>			
14	6484	63	6627	<b>LOT AREA (SF)</b>			
15	6014	64	6627	112	6589	162	6000
16	11870	65	6427	113	6300	163	6000
17	8820	66	6520	114	6300	164	6000
18	6413	67	6494	115	6300	165	6388
19	6600	68	6500	116	6295	166	8099
20	6600	69	6500	117	6196	167	8099
21	6600	70	6506	118	6039	168	8100
22	6600	71	6482	119	5893	169	8100
23	6600	72	6600	120	6049	170	7558
24	6600	73	6600	121	6360	171	8551
25	6600	74	6869	122	6400	172	9692
26	6582	75	6505	123	6200	173	8035
27	6525	76	7762	124	6200	174	9846
28	10419	77	10343	125	6200	175	10094
29	10817	78	10359	126	6247	176	11544
30	7584	79	7656	127	7889	177	10127
31	7464	80	6741	128	6247	178	8853
32	7606	81	6618	129	10850	179	10466
33	6887	82	6618	130	7979	180	7577
34	6988	83	6418	131	6098	181	7259
35	6984	84	6530	132	6200	182	7200
36	6977	85	6319	133	6200	183	7200
37	6972	86	6418	134	6226	184	7200
38	6967	87	6618	135	6223	185	7200
39	6853	88	6618	136	6415	186	7186
40	8617	89	6618	137	6388	187	6779
41	8364	90	6618	138	6103	188	7528
42	7963	91	6618	139	6874	189	6399
43	6949	92	6618	140	10722	190	6304
44	7125	93	6306	141	10653	191	6300
45	7608	94	6500	142	6897	192	6484
46	7608	95	6500	143	6057	AVG LOT SIZE (SF) 7127	
47	7756	96	6500	144	6386		
48	6388	97	6500	145	7229		
49	6000	98	6487	146	6871		
		99	6600	147	10487		



### ONSITE LOCAL STREET SECTION

STREETS 'A' 'B' 'D' 'I' 'E' 'F' 'G' 'H' 'J' 'K' 'L' 'M' 'N'  
NOT TO SCALE  
T.L. = 5.5



### EVANS ROAD

MODIFIED ARTERIAL HIGHWAY  
NOT TO SCALE  
T.L. = 8.5

TR38071-1 - LETTERED LOTS	
LOT	AREA (SF)
A	28148
B	2454
C	6640
TOTAL (SF) 37242	
TR38071 - LETTERED LOTS	
LOT	AREA (SF)
D	15161
E	2144
F	25602
G	33485
TOTAL (SF) 76392	

NOTE: LOTS A THROUGH G TO BE DEDICATED TO THE CITY OF PERRIS

### INDEX

	SHEET NO.
GENERAL NOTES, CROSS SECTIONS, AND INDEX MAP	1
TENTATIVE TRACT MAP	2
CONCEPTUAL GRADING PHASE 1	3, 4
CONCEPTUAL GRADING PHASE 2	5

### A.P.N.

302-200-020, 021, 022, 023, 024, 024, 026, 027, 028, 029, 030, 031, 032, 033, 034  
302-210-001, 002, 003, 004, 005, 007, 008, 009

### BASIS OF BEARINGS

THE BASIS OF BEARINGS AND COORDINATES FOR THIS SURVEY IS THE CALIFORNIA STATE PLANE COORDINATE SYSTEM, NAD 83 (NAD83/2011), ZONE 6 (EPOCH 2010.00) BASED LOCALLY ON CONTROL STATIONS "MLFP", "BILL", "DSSC" AND "SBCC". ALL DISTANCES SHOWN ARE GROUND DISTANCES, UNLESS SPECIFIED OTHERWISE. GRID DISTANCES MAY BE OBTAINED BY MULTIPLYING THE GROUND DISTANCES BY AN AVERAGE COMBINATION FACTOR OF 1.00007037.

### SOILS ENGINEER

ADVANCE GEOTECHNICAL SOLUTIONS, INC.  
25109 JEFFERSON AVENUE, SUITE 220  
MURRIETA, CA 92562  
(619) 708-1649

### BENCHMARK

RIVERSIDE COUNTY: BM M-31  
ELEVATION: 1477.42 FEET (NAVD88)(2011)

### AERIAL TOPOGRAPHY

AERIAL TOPOGRAPHY PREPARED BY: INLAND AERIAL  
DATE OF FLIGHT: AUGUST 7, 2020

### LEGAL DESCRIPTION

PARCELS 1 THROUGH 3, 5 THROUGH 18, AND A PORTION OF PARCEL 4 IN THE CITY OF PERRIS, COUNTY OF RIVERSIDE, STATE OF CALIFORNIA, AS SHOWN BY MAP ON FILE IN BOOK 15, PAGES 18 AND 19 OF MAPS OF OFFICIAL RECORDS OF RIVERSIDE COUNTY, CALIFORNIA.

### OWNER

STRATFORD RANCH ASSOCIATES, LLC  
4100 NEWPORT PLACE, SUITE 790  
NEWPORT BEACH, CA 92660  
PHONE: (949) 333-6752

### APPLICANT

JASON KELLER  
MISSION PACIFIC LAND COMPANY  
4100 NEWPORT PLACE, SUITE 790  
NEWPORT BEACH, CA 92660-2450  
PHONE: (949) 333-6752



### TENTATIVE TRACT MAP NO. 38071

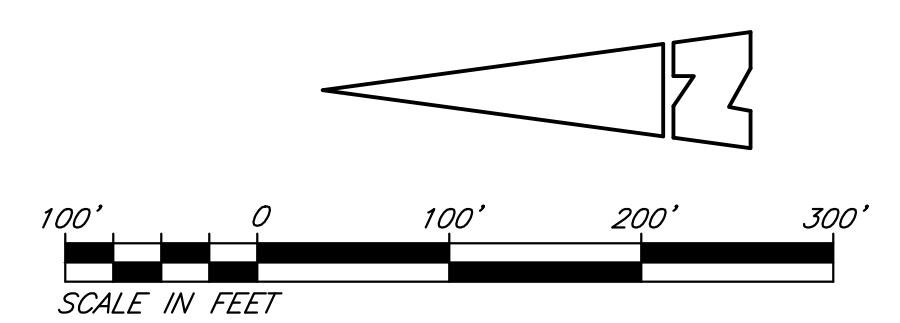
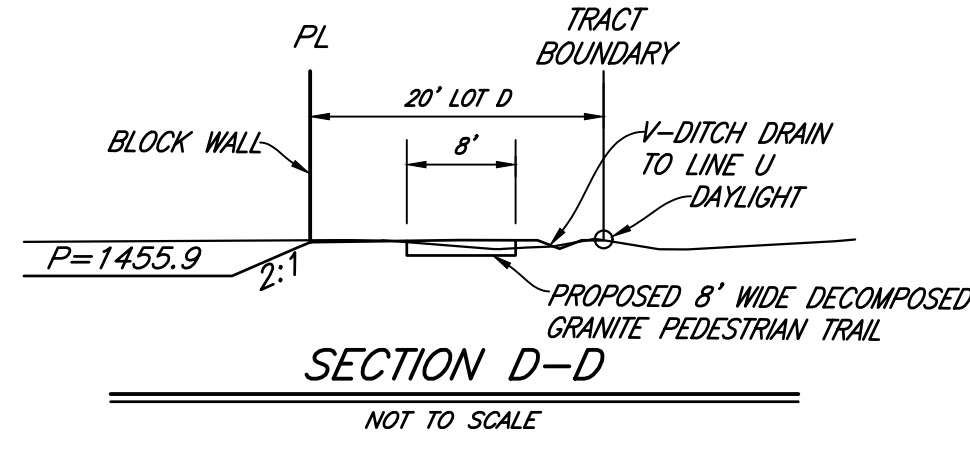
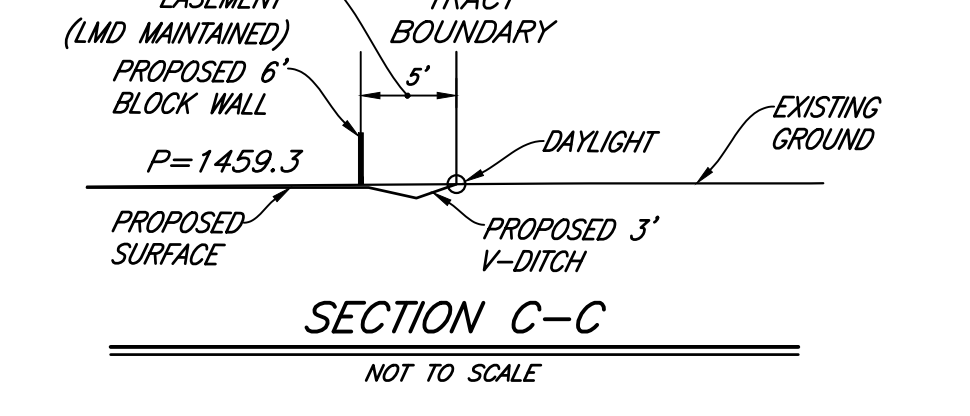
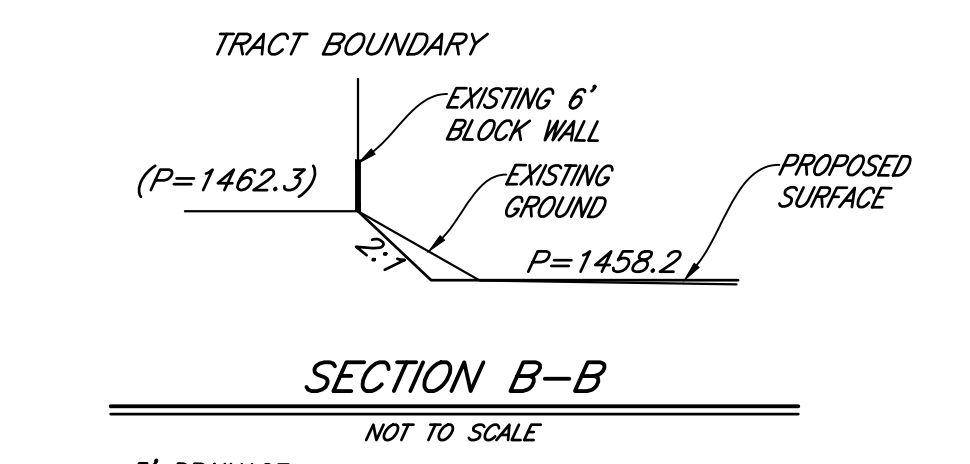
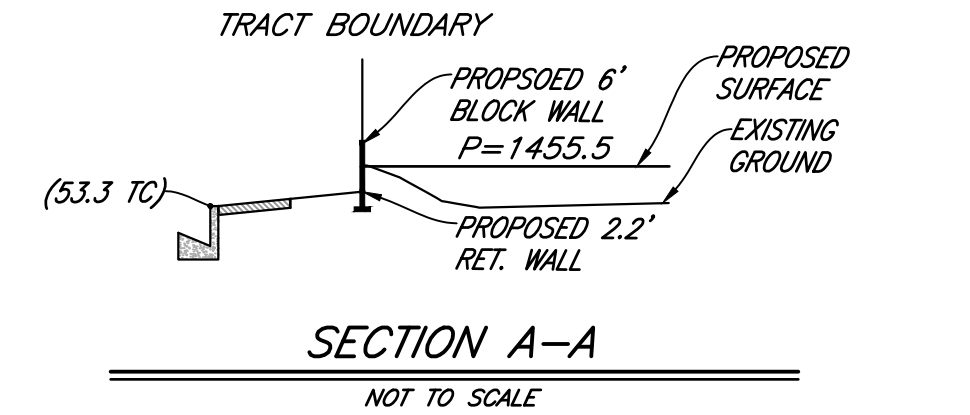
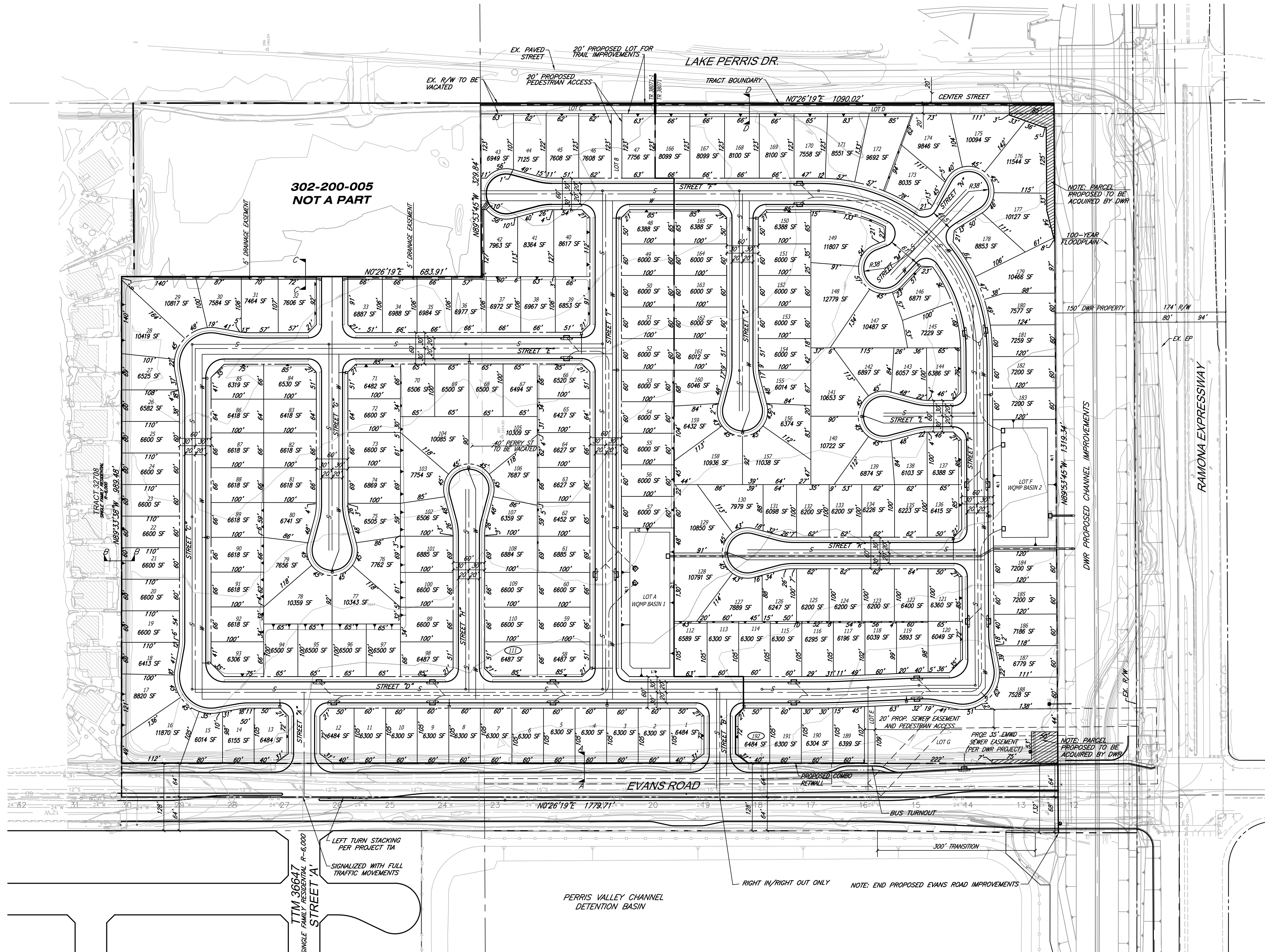
### CITY OF PERRIS

PREPARED FOR: STRATFORD RANCH ASSOCIATES, LLC  
4100 NEWPORT PLACE, SUITE 790  
NEWPORT BEACH, CA 92660  
949-333-6752



SHEET 1 OF 5 SHEETS

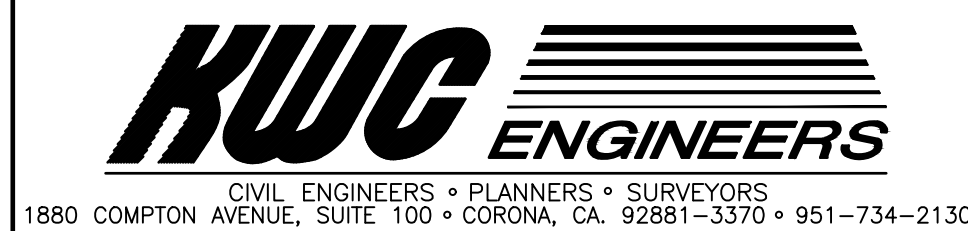
# TENTATIVE TRACT MAP NO. 38071



TENTATIVE TRACT MAP NO. 38071

CITY OF PERRIS

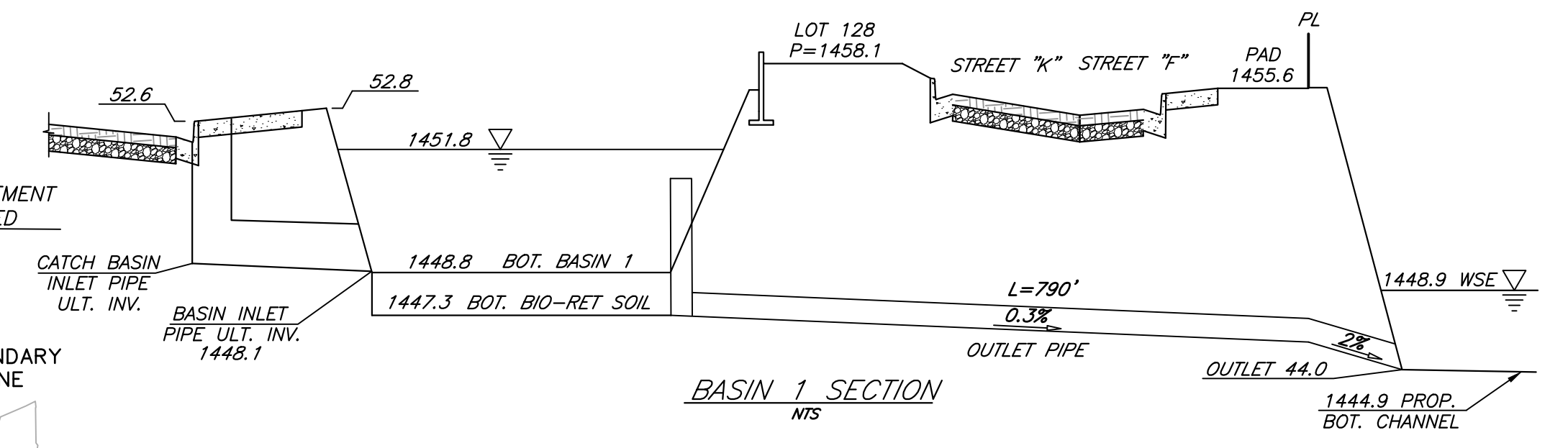
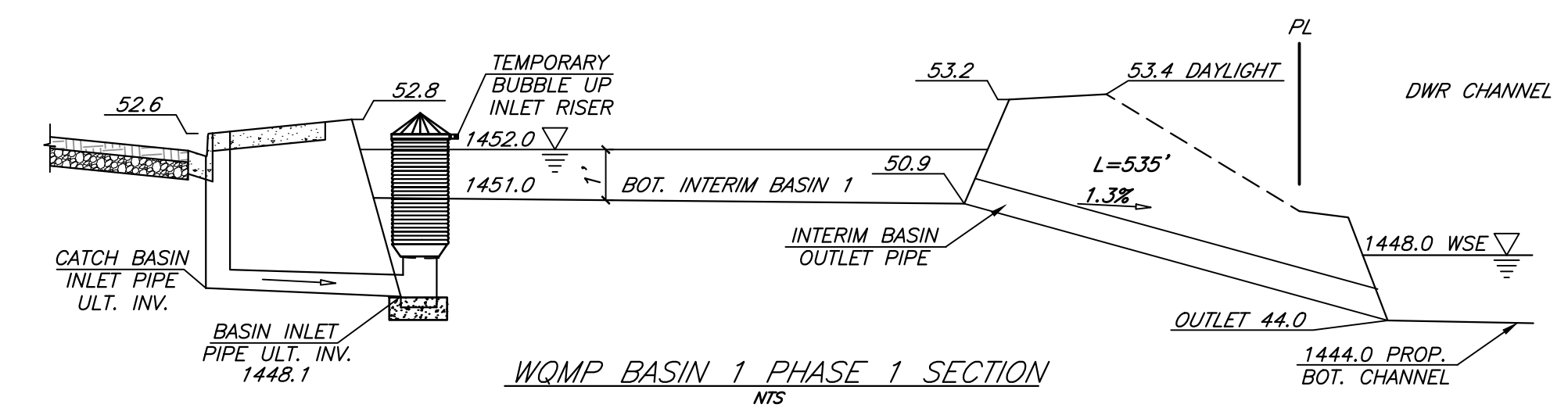
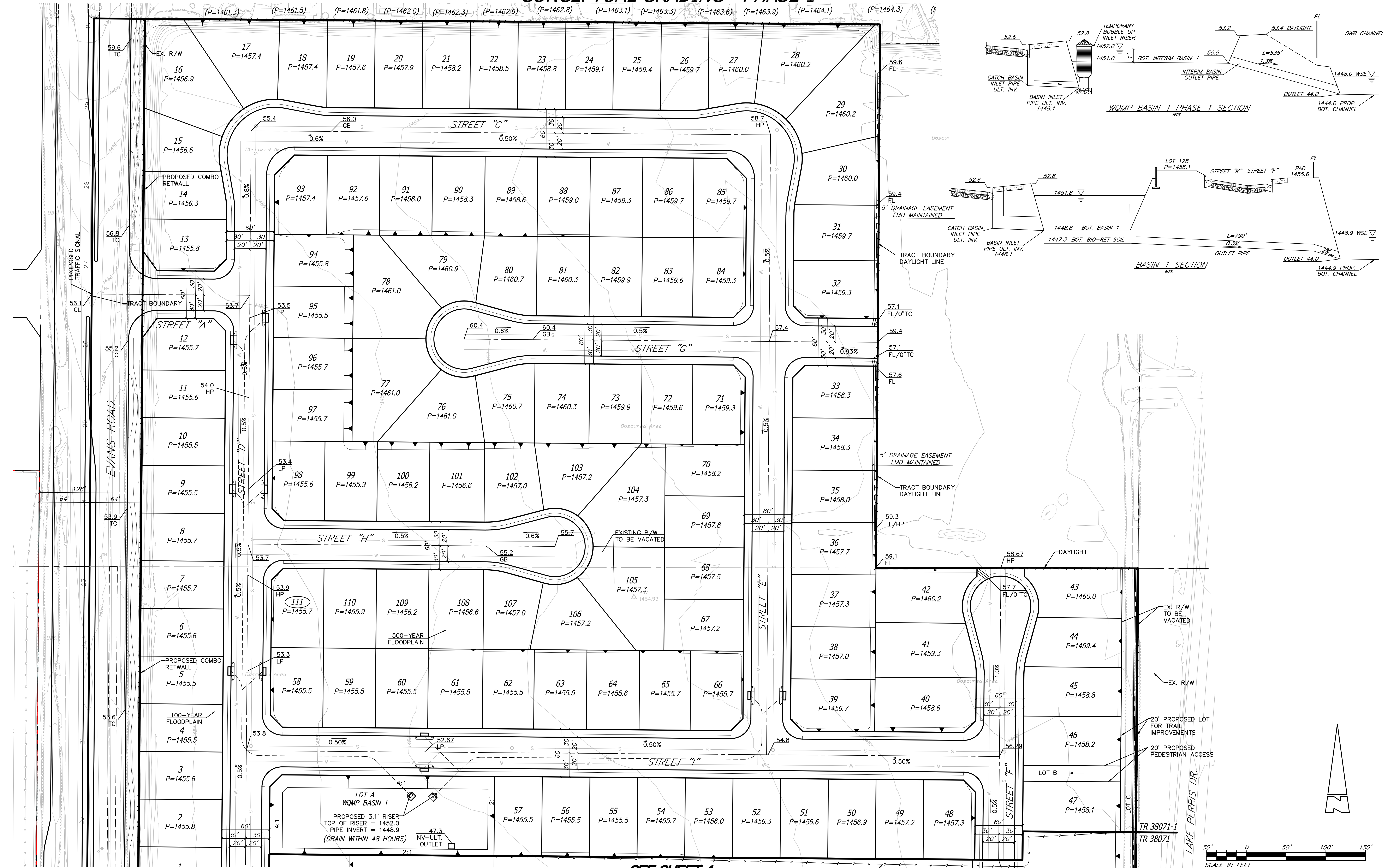
PREPARED FOR: STRATFORD RANCH ASSOCIATES, LLC  
4100 NEWPORT PLACE, SUITE 790  
NEWPORT BEACH, CA 92660  
949-333-6752



SHEET 2 OF 5 SHEETS

J:\N\_202092.2.07 M:\202092 SURVEY\MAPS\TR 2092 TTM.dwg 6/2/2021

# TENTATIVE TRACT NO. 38071 CONCEPTUAL GRADING - PHASE 1



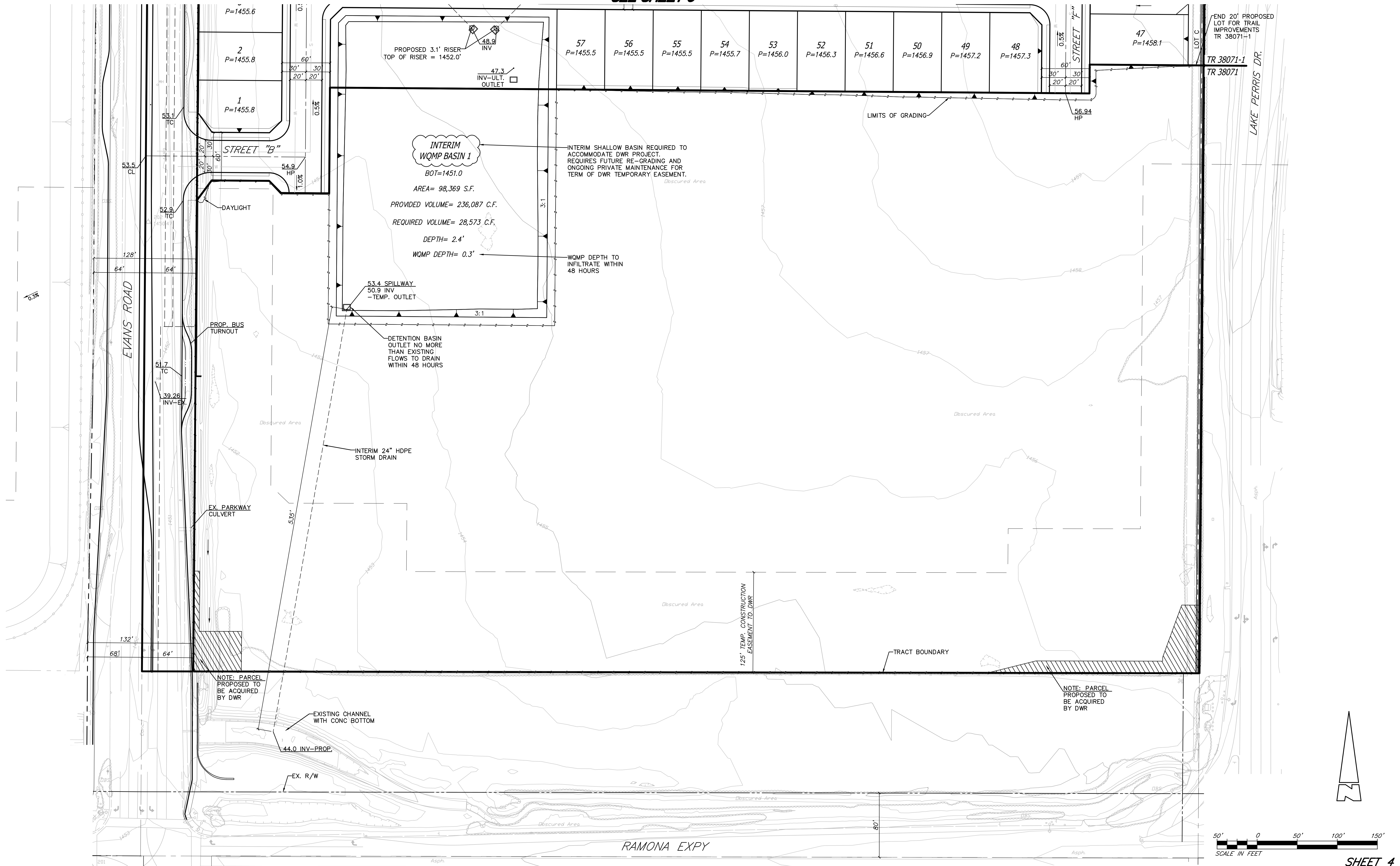
SEE SHEET 4

SHEET 3

JUN. 20.2009.2.07 M:\20\2092\SURVEY\MAPS\TR 2092 GRADING-SHT 3 PHASE 1.dwg 4/10/2020

# TENTATIVE TRACT NO. 38071 CONCEPTUAL GRADING - PHASE 1

**SEE SHEET 3**



P=1455.6

2  
P=1455.8

1  
P=1455.8

57  
P=1455.5

56  
P=1455.5

55  
P=1455.5

54  
P=1455.7

53  
P=1456.0

52  
P=1456.3

51  
P=1456.6

50  
P=1456.9

49  
P=1457.2

48  
P=1457.3

47  
P=1458.1

**INTERIM  
WQMP BASIN 1**

BOT=1451.0  
AREA= 98,369 S.F.  
PROVIDED VOLUME= 236,087 C.F.  
REQUIRED VOLUME= 28,573 C.F.  
DEPTH= 2.4'  
WQMP DEPTH= 0.3'

INTERIM SHALLOW BASIN REQUIRED TO ACCOMMODATE DWR PROJECT. REQUIRES FUTURE RE-GRADING AND ONGOING PRIVATE MAINTENANCE FOR TERM OF DWR TEMPORARY EASEMENT.

WQMP DEPTH TO INFILTRATE WITHIN 48 HOURS

53.4 SPILLWAY  
50.9 INV  
-TEMP. OUTLET

DETENTION BASIN  
OUTLET NO MORE THAN EXISTING FLOWS TO DRAIN WITHIN 48 HOURS

INTERIM 24" HDPE STORM DRAIN

PROP. BUS TURNOUT

EX. PARKWAY CULVERT

NOTE: PARCEL PROPOSED TO BE ACQUIRED BY DWR

EXISTING CHANNEL WITH CONC BOTTOM

44.0 INV-PROP.

EX. R/W

LIMITS OF GRADING

END 20' PROPOSED LOT FOR TRAIL IMPROVEMENTS TR 38071-1

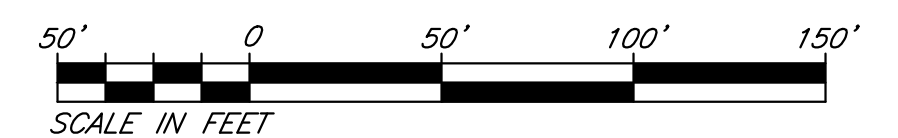
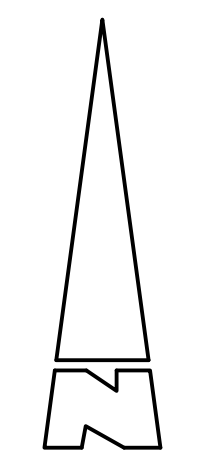
TR 38071-1  
TR 38071

LAKE FERRIS DR.

125' TEMP. CONSTRUCTION EASEMENT TO DWR

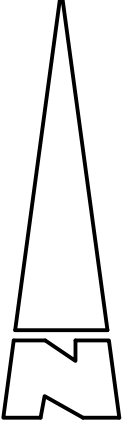
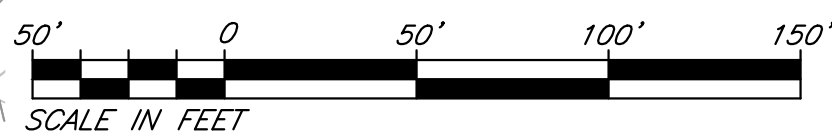
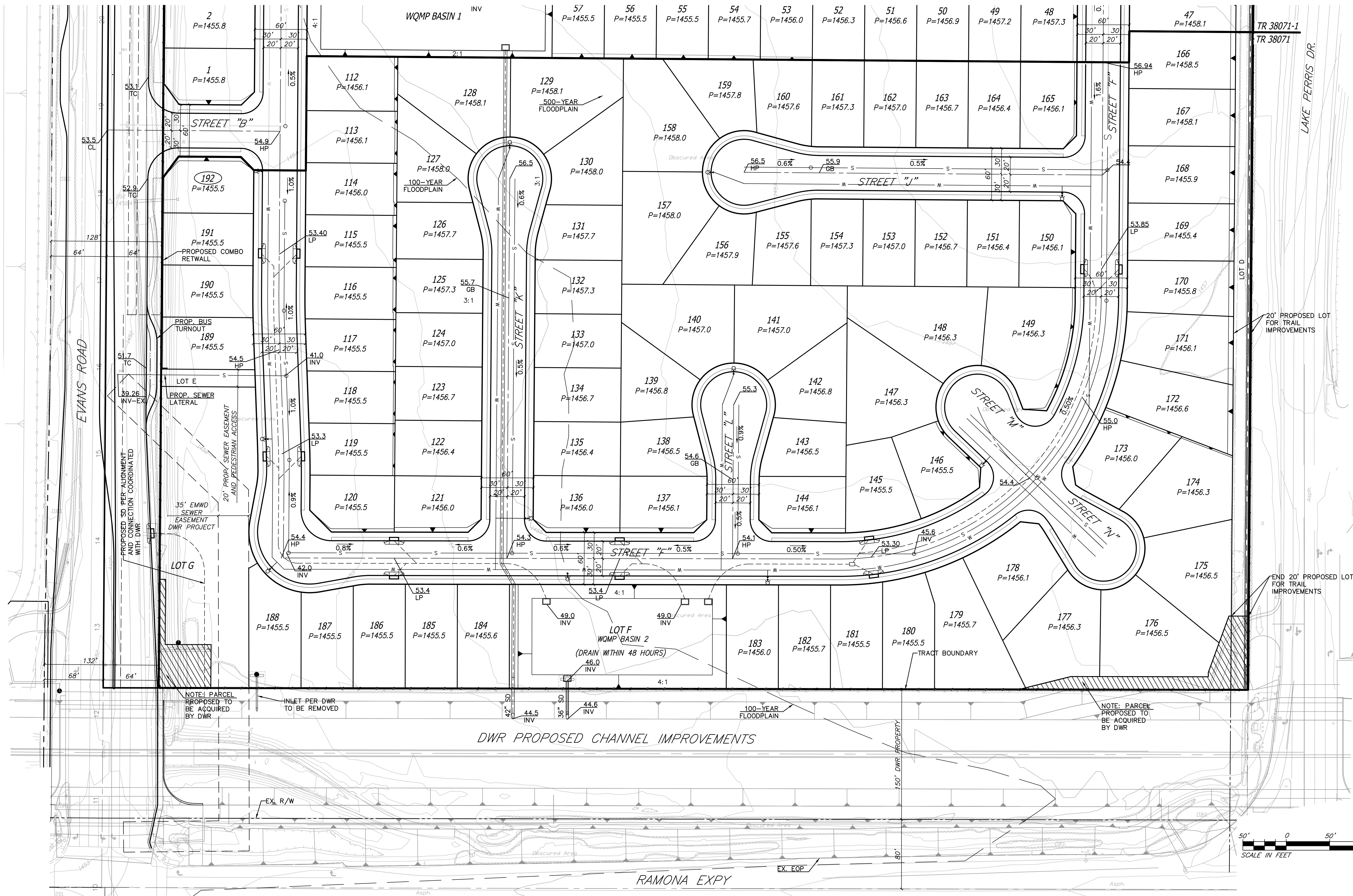
TRACT BOUNDARY

NOTE: PARCEL PROPOSED TO BE ACQUIRED BY DWR



# TENTATIVE TRACT NO. 38071 CONCEPTUAL GRADING - PHASE 2

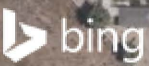
**SEE SHEET 3**



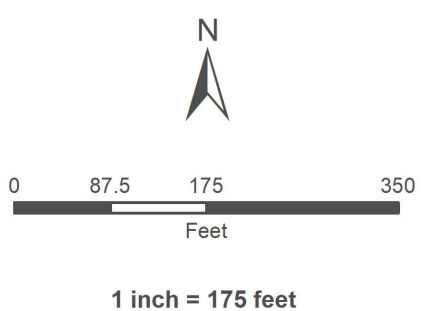
JUN. 20.2009.2.07 M:\20\2092\SURVEY\MAPS\TR 2092 GRADING-SHT 5 PHASE 2.dwg 4/10/2020



Coordinate System: State Plane 6 NAD 83  
 Projection: Lambert Conformal Conic  
 Datum: NAD 1983 2011  
 Map Prepared by: K. Kartunen, GLA  
 Date Prepared: August 6, 2021



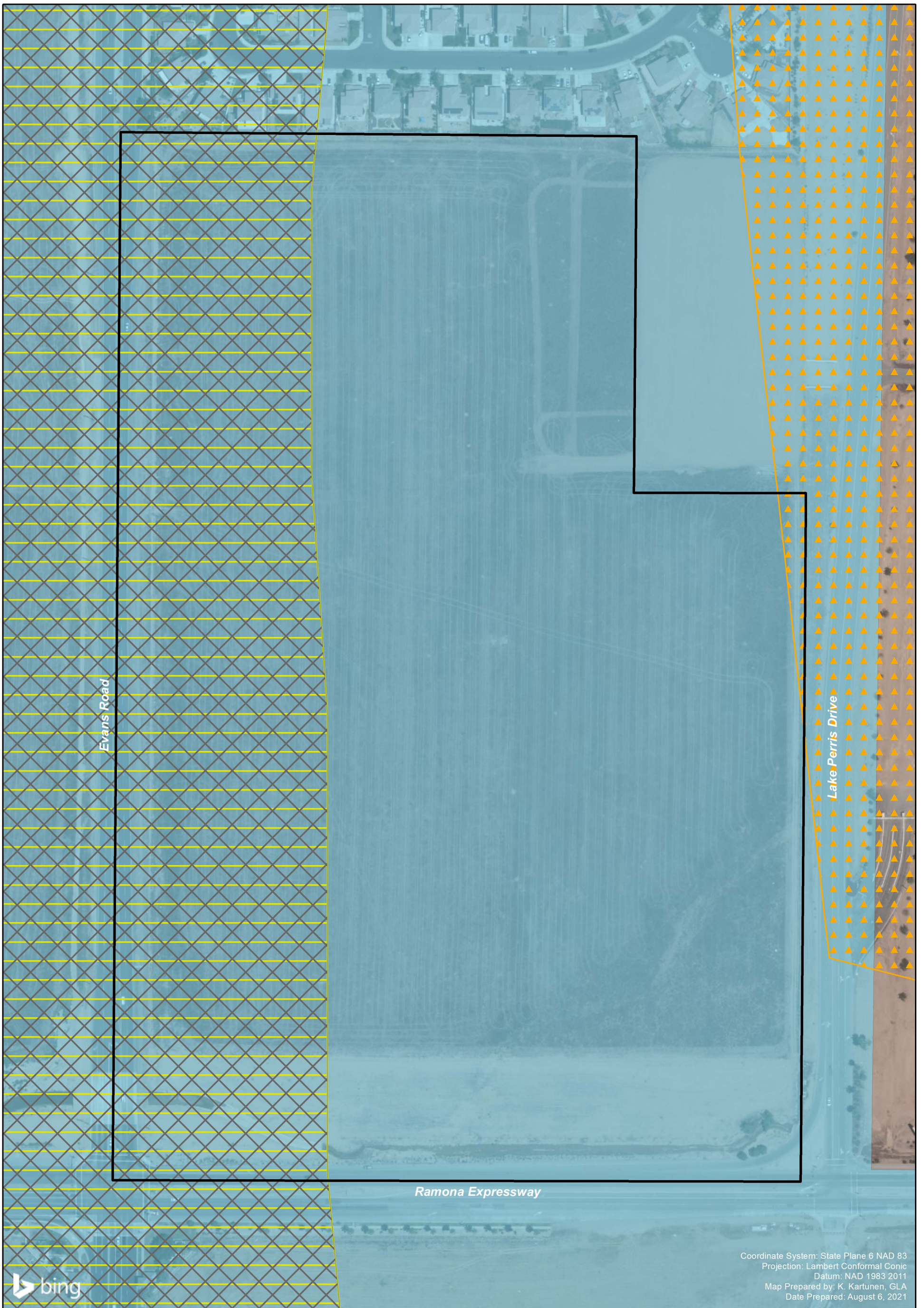
-  Study Area
-  Public Quasi-Public Conserved Lands








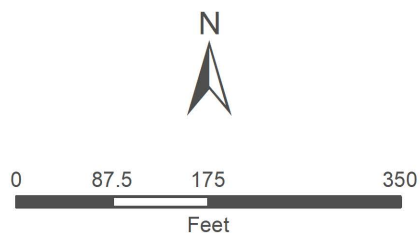
**STRATFORD RANCH EAST  
 DEVELOPMENT PROJECT**  
 MSHCP Overlay Map

GLENN LUKOS ASSOCIATES 

Exhibit 5A



-  Study Area
-  Burrowing Owl Survey Area
-  Criteria Area Species Survey Area
-  Mammal Survey Area
-  Narrow Endemic Plant Species Survey Area



1 inch = 175 feet

**STRATFORD RANCH EAST  
DEVELOPMENT PROJECT**

MSHCP Survey Area Map

GLENN LUKOS ASSOCIATES

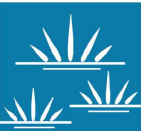
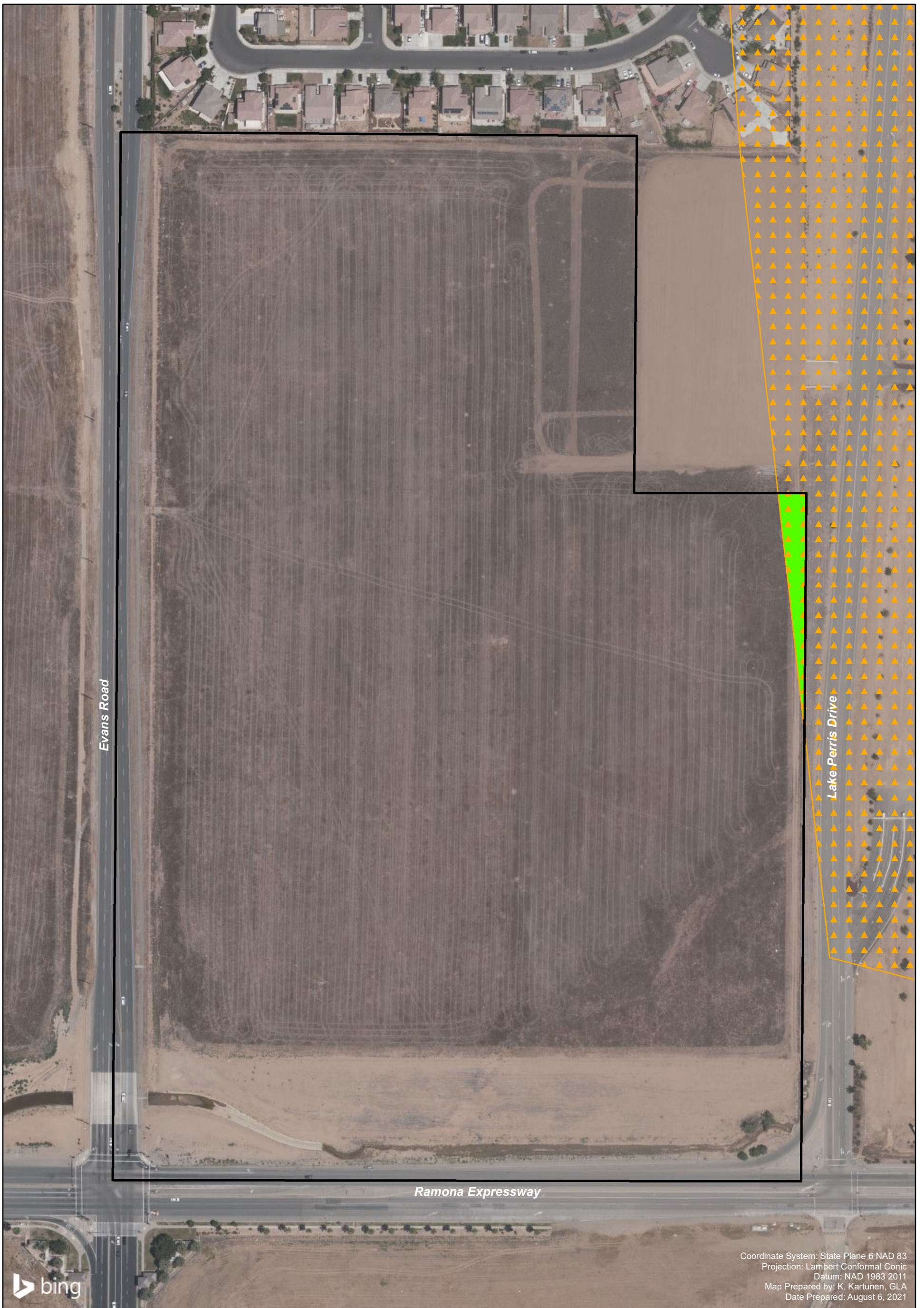
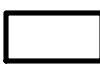




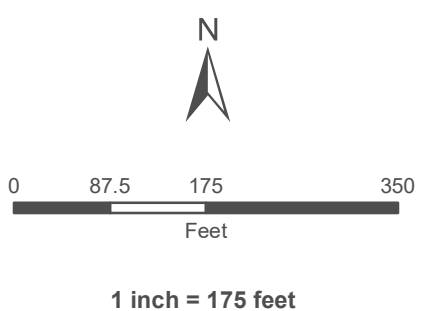
Exhibit 5B

Coordinate System: State Plane 6 NAD 83  
Projection: Lambert Conformal Conic  
Datum: NAD 1983 2011  
Map Prepared by: K. Kartunen, GLA  
Date Prepared: August 6, 2021



Coordinate System: State Plane 6 NAD 83  
 Projection: Lambert Conformal Conic  
 Datum: NAD 1983 2011  
 Map Prepared by: K. Kartunen, GLA  
 Date Prepared: August 6, 2021

-  Study Area
-  Mammal Survey Area
-  Mammal Survey Area Within the Project Site - 0.28 ac.






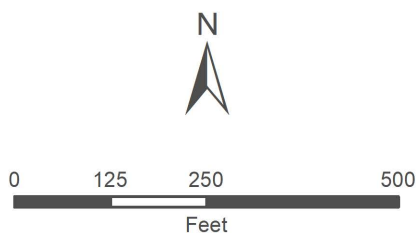
**STRATFORD RANCH EAST DEVELOPMENT PROJECT**  
 MSHCP Survey Area Map

GLENN LUKOS ASSOCIATES 

Exhibit 5C



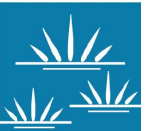
-  Study Area
-  500-foot Visual Survey Buffer
-  Suitable Burrow



**STRATFORD RANCH EAST  
DEVELOPMENT PROJECT**  
Burrowing Owl Survey Map

GLENN LUKOS ASSOCIATES

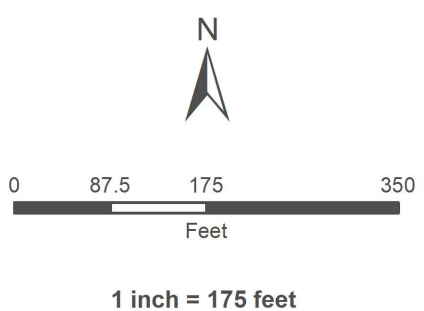
Exhibit 6





Coordinate System: State Plane 6 NAD 83  
 Projection: Lambert Conformal Conic  
 Datum: NAD 1983 2011  
 Map Prepared by: K. Kartunen, GLA  
 Date Prepared: August 6, 2021

- Study Area
- Ds2 - Domino fine sandy loam, eroded
- Dv - Domino silt loam, saline-alkali
- EnA - Exeter sandy loam, 0 to 2 percent slopes
- EpA - Exeter sandy loam, deep, 0 to 2 percent slopes
- EwB - Exeter very fine sandy loam, 0 to 5 percent slopes






**STRATFORD RANCH EAST  
 DEVELOPMENT PROJECT**  
 Soils Map

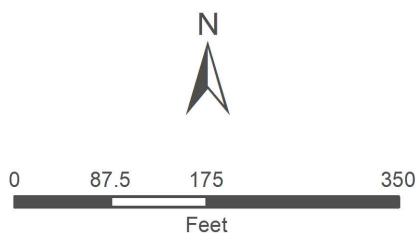
GLENN LUKOS ASSOCIATES

Exhibit 7



Coordinate System: State Plane 6 NAD 83  
 Projection: Lambert Conformal Conic  
 Datum: NAD 1983 2011  
 Map Prepared by: K. Kartunen, GLA  
 Date Prepared: August 6, 2021

-  Study Area
-  Disturbed/Developed
-  Non-Native Grassland



1 inch = 175 feet

## STRATFORD RANCH EAST DEVELOPMENT PROJECT

Vegetation Map

GLENN LUKOS ASSOCIATES

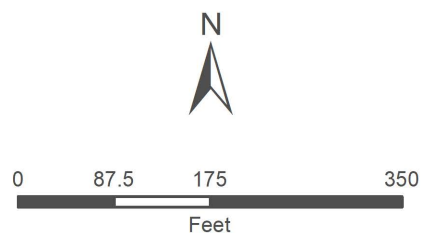


Exhibit 8



Coordinate System: State Plane 6 NAD 83  
 Projection: Lambert Conformal Conic  
 Datum: NAD 1983 2011  
 Map Prepared by: K. Kartunen, GLA  
 Date Prepared: August 6, 2021

-  Study Area
-  RWQCB Non-Wetland Waters of the State
-  16 Width in Feet



**STRATFORD RANCH EAST  
 DEVELOPMENT PROJECT**  
 RWQCB Jurisdictional Delineation Map

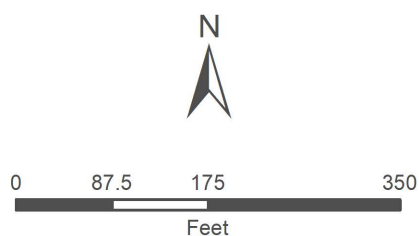
GLENN LUKOS ASSOCIATES



Exhibit 9A



- Study Area
- CDFW Non-Riparian Stream
- CDFW Riparian
- 16 Width of Non-Riparian Stream in Feet

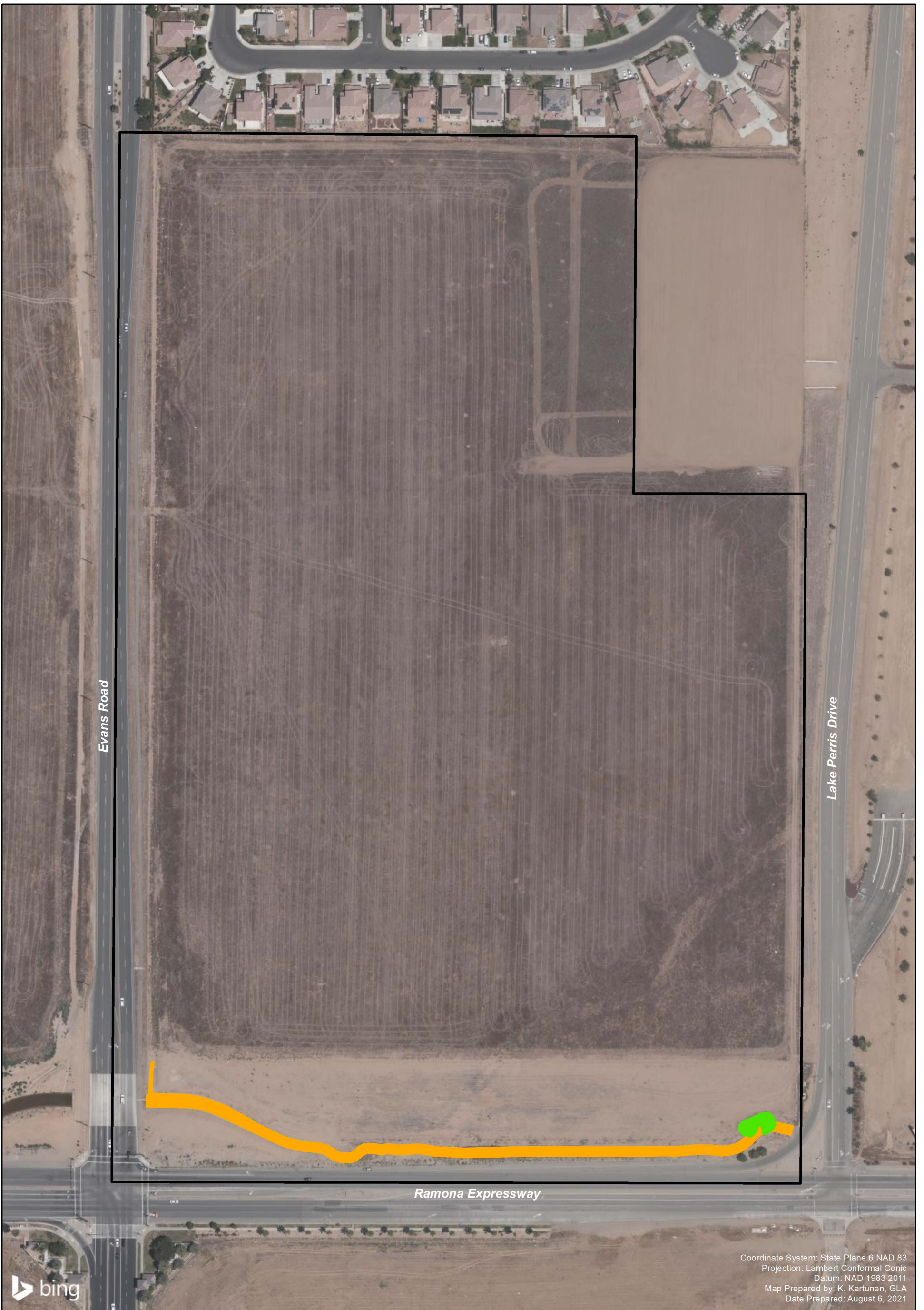





**STRATFORD RANCH EAST  
DEVELOPMENT PROJECT**  
CDFW Jurisdictional Delineation Map

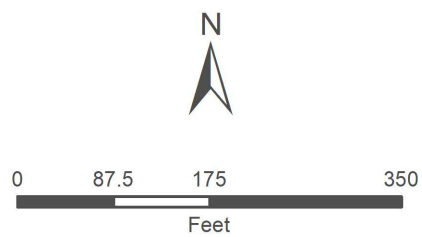
GLENN LUKOS ASSOCIATES



Exhibit 9B



-  Study Area
-  MSHCP Riverine
-  MSHCP Riparian



1 inch = 175 feet

**STRATFORD RANCH EAST  
 DEVELOPMENT PROJECT**

MSHCP Riparian/Riverine Map

GLENN LUKOS ASSOCIATES



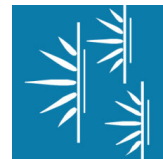
Exhibit 9C



Photograph 1: Western view of the State Department of Water Resources Channel near Evans Road.



Photograph 2: Eastern view of State Department of Water Resources Channel looking east towards Lake Perris Drive and the Perris Dam.



GLENN LUKOS ASSOCIATES

Exhibit 10– Page 1

**STRATFORD RANCH EAST**

Site Photographs



Photograph 3: Easterly view of project site depicting disturbed nature of the property. Note the Perris Dam in the background.



Photograph 4: Northern view of project site adjacent to Evans Road. Note the disturbed nature of the site.



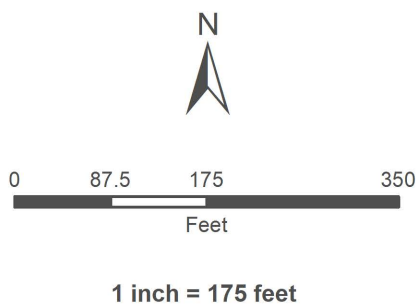
GLEGLENN LUKOS ASSOCIATES

Exhibit 10 – Page 2

**STRATFORD RANCH EAST**  
Site Photographs



-  Study Area
-  Onsite Project Footprint
-  Offsite Project Footprint
-  Disturbed/Developed
-  Non-Native Grassland



**STRATFORD RANCH EAST  
DEVELOPMENT PROJECT**  
Vegetation Impact Map

GLENN LUKOS ASSOCIATES

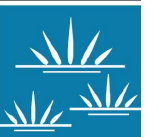
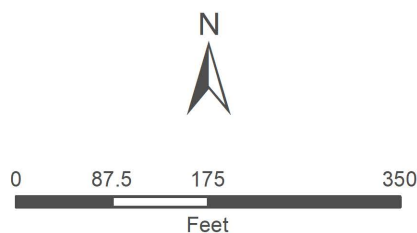


Exhibit 11



-  Study Area
-  Onsite Project Footprint
-  Offsite Project Footprint
-  RWQCB Non-Wetland Waters of the State
-  16 Width in Feet



**STRATFORD RANCH EAST  
DEVELOPMENT PROJECT**

RWQCB Jurisdictional Delineation Impact Map

GLENN LUKOS ASSOCIATES

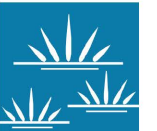
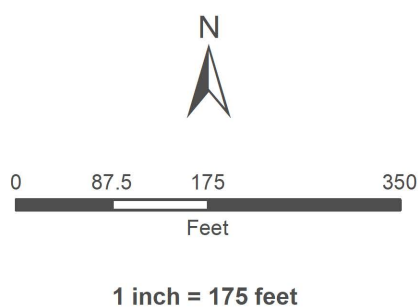


Exhibit 12A



Coordinate System: State Plane 6 NAD 83  
 Projection: Lambert Conformal Conic  
 Datum: NAD 1983 2011  
 Map Prepared by: K. Kartunen, GLA  
 Date Prepared: August 6, 2021

-  Study Area
-  Onsite Project Footprint
-  Offsite Project Footprint
-  CDFW Non-Riparian Stream
-  CDFW Riparian
-  16 Width of Non-Riparian Stream in Feet



## STRATFORD RANCH EAST DEVELOPMENT PROJECT

CDFW Jurisdictional Delineation Impact Map






GLENN LUKOS ASSOCIATES

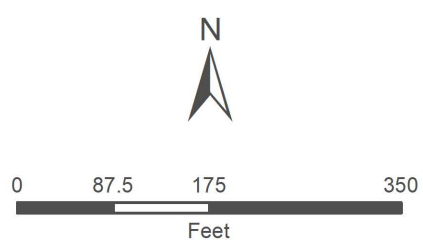


Exhibit 12B



Coordinate System: State Plane 6 NAD 83  
 Projection: Lambert Conformal Conic  
 Datum: NAD 1983 2011  
 Map Prepared by: K. Kartunen, GLA  
 Date Prepared: August 6, 2021

-  Study Area
-  Onsite Project Footprint
-  Offsite Project Footprint
-  MSHCP Riverine
-  MSHCP Riparian



1 inch = 175 feet

**STRATFORD RANCH EAST  
 DEVELOPMENT PROJECT**

MSHCP Riparian/Riverine Impact Map

GLENN LUKOS ASSOCIATES

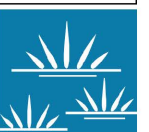


Exhibit 12C

# 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**

#### **ASTERACEAE**

*Artemisia dracunculus*  
*Ambrosia acanthicarpa*  
*Heterotheca grandiflora*  
\**Hypochaeris glabra*  
\**Oncosiphon pilulifer*

#### **Sunflower Family**

wild tarragon  
annual burweed  
telegraph weed  
smooth cat's ears  
stinknet

#### **BORAGINACEAE**

*Amsinckia menziesii*  
*Cryptantha intermedia*

#### **Borage Family**

Menzie's fiddleneck  
common cryptantha

#### **BRASSICACEAE**

\**Brassica nigra*  
\**Hirschfeldia incana*  
\**Sisymbrium irio*  
\**Raphanus sativus*

#### **Mustard Family**

black mustard  
summer mustard  
London rocket  
wild radish

#### **CHENOPODIACEAE**

\**Chenopodium album*  
\**Salsola tragus*  
\**Chenopodium murale*

#### **Goosefoot Family**

lamb's quarters  
Russian thistle  
nettle leaf goosefoot

#### **EUPHORBIACEAE**

*Croton californicus*

#### **Spurge Family**

California croton

#### **GERANIACEAE**

\**Erodium cicutarium*

#### **Geranium Family**

red-stemmed filaree

#### **LAMIACEAE**

*Trichostema lanceolatum*

#### **Mint Family**

vinegar weed

**MALVACEAE**

*\*Malva parviflora*

**ONAGRACEAE**

*Camissoniopsis bistorta*

**POLYGONACEAE**

*\*Polygonum aviculare ssp. neglectum*

**MAGNOLIOPHYTA  
MONOCOTYLEDONES**

**POACEAE**

*\*hordeum vulgare*

*\*Avena barbata*

*\*Bromus diandrus*

*\*Bromus madritensis ssp. rubens*

**Mallow Family**

cheeseweed

**Evening Primrose Family**

California sun cup

**Buckwheat Family**

prostrate knotweed

**FLOWERING PLANTS  
MONOCOTS**

**Grass Family**

common barley

slender oat

ripgut brome

foxtail chess

## APPENDIX B: FAUNAL COMPENDIUM

The faunal compendium lists species identified on the Project site. Scientific nomenclature and common names for vertebrate species referred to in this report follow Collins (2009) for amphibians and reptiles, Bradley, et al. (2014) for mammals, and AOU Checklist (1998) for birds. An (\*) denotes non-native species.

### Scientific Name

### Common Name

#### **REPTILIA**

#### **REPTILES**

##### **COLUBRIDAE**

*Pituophis catenifer*

##### **Typical Snakes**

Pacific gopher snake

##### **IGUANIDAE**

*Sceloporus occidentalis*

##### **Iguanid Lizards**

Great Basin fence lizard

#### **AVES**

#### **BIRDS**

##### **ALAUDIDAE**

*Eremophila alpestris*

##### **Larks**

horned lark

##### **ANATIDAE**

*Anas platyrhynchos*

##### **Ducks, Geese, & Swans**

mallard

##### **COLUMBIDAE**

*Columba livia*

*Zenaida macroura*

##### **Pigeons & Doves**

rock dove

mourning dove

##### **CORVIDAE**

*Corvus brachyrhynchos*

##### **Crows & Jays**

American crow

##### **EMBERIZIDAE**

*Melospiza melodia*

*Passerculus sandwichensis*

##### **Emberizids**

song sparrow

savannah sparrow

##### **FRINGILLIDAE**

*Carpodacus mexicanus*

*Spinus psaltria*

##### **Fringilline & Cardueline Finches**

house finch

lesser goldfinch

##### **ICTERIDAE**

*Agelaius phoeniceus*

*Sturnella neglecta*

##### **Blackbirds & Orioles**

red-winged blackbird

Western meadowlark

**LARIDAE**

*Larus occidentalis*

**STURNIDAE**

\**Sturnus vulgaris*

**TURDIDAE**

*Sialia Mexicana*

**TYRANNIDAE**

*Tyrannus verticalis*

**MAMMALIA**

**CANIDAE**

*Canis latrans*

**CRICETIDAE**

*Peromyscus maniculatus*

**GEOMYIDAE**

*Thomomys bottae*

**SCIURIIDAE**

*Otospermophilus beecheyi*

**Gulls and Terns**

Western gull

**Starlings**

European starling

**Songbirds**

Western bluebird

**Tyrant Flycatchers**

Western kingbird

**MAMMALS**

**Foxes, Wolves, & Allies**

coyote

**Rats, Mice, Voles, & Relatives**

deer mouse

**Pocket Gophers**

Botta's pocket gopher

**Squirrels**

California ground squirrel