

**GENERAL BIOLOGICAL ASSESSMENT  
AND  
WESTERN RIVERSIDE COUNTY MSHCP  
CONSISTENCY ANALYSIS  
FOR  
APN 910-230-003**

**CITY OF MURRIETA  
RIVERSIDE COUNTY, CALIFORNIA**

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## **1.0 Introduction**

DEC LLC was contracted to prepare a general biological assessment and Western Riverside County MSHCP consistency analysis for Assessor's Parcel Number (APN) 910-230-003. The project site consists of approximately 5.83 acres located on the west side of Madison Avenue, south of Elm Street and north of Pear Street, in the city of Murrieta, Riverside County, California.

### **1.1 Project Site Location**

The project site is located at the southwest corner of west side of Madison Avenue, south of Elm Street and north of Pear Street. The site is located within the City of Murrieta, Riverside County, California. The project site consists of Riverside County APNs 910-230-003. Specifically, the project site is located within Murrieta Land Grant of the *Murrieta* United States Geological Survey (USGS) 7.5' topographic quadrangle. The center point latitude and longitude for the project site are 33°32'04.1869" North and 117°10'32.6193" West (Figures 1 and 2).

### **1.2 Project Description**

The Project proposes a Development Plan (DP) to develop a two-story, 11,706 square foot (sq. ft.) office building with a detached, single-story, 4,980 sq. ft. warehouse (with an outdoor storage area for the warehouse component).

## **2.0 Methodology**

### **2.1 Literature Review**

DEC LLC conducted a literature review and reviewed aerial photographs and topographic maps of the project site and surrounding areas. A five-mile radius was used to identify sensitive species with the California Natural Diversity Data Base (CNDDB), the U.S. Fish and Wildlife Service (USFWS) Endangered Species Lists, and the California Native Plant Society (CNPS) rare plant lists to obtain species information for the project area. The CNDDB and USFWS critical habitat databases were utilized, together with Geographic Information System (GIS) software, to locate the previously recorded locations of sensitive plant and wildlife occurrences and designated critical habitat and determine the distance from the project site. Additionally, the Western Riverside County MSHCP was reviewed for information on known occurrences of sensitive species within Riverside County.

#### **2.1.1 Western Riverside County MSHCP**

The Western Riverside County MSHCP (Dudek and Associates 2003) is a comprehensive, multijurisdictional habitat conservation planning program for western Riverside County, California. The purpose of the Western Riverside County MSHCP is to preserve native habitats, and to this end, the plan focuses upon the habitat needs of multiple species rather than one species at a time. The Western Riverside County MSHCP provides coverage/take authorization for some species listed under the federal or state Endangered Species Act (ESA) as well as non-



listed special-status plant and wildlife species. It also provides mitigation for impacts to special-status species and their associated habitats.

Through agreements with the USFWS and California Department of Fish and Wildlife (CDFWG), 129 listed and special-status plant and animal species receive some level of coverage under the Western Riverside County MSHCP. Of the 129 covered species, the majority have no additional survey needs or conservation requirements. Furthermore, the Western Riverside County MSHCP provides mitigation for project-specific impacts to these species, thereby reducing the degree of impact to below a level of significance, pursuant to the California Environmental Quality Act (CEQA).

Several of the species covered under the Western Riverside County MSHCP have additional survey requirements. These include the riparian communities and associated species addressed in Section 6.1.2 of the Western Riverside County MSHCP document (“Protection of Species Associated with Riparian/Riverine Areas and Vernal Pools”), plants identified in Section 6.1.3 (“Narrow Endemic Plant Species”); and plants and animal species addressed in Section 6.3.2 (“Additional Survey Needs and Procedures”).

### **2.1.2 Project Relationship to the Western Riverside County MSHCP**

The project area is located within the Western Riverside County MSHCP boundaries. The City of Murrieta, acting as the lead agency for the proposed project, is a permittee under the Western Riverside County MSHCP and, therefore, is afforded coverage under the state or federal ESAs for impacts to listed species covered by the plan. The City is required to document consistency with the Western Riverside County MSHCP in conjunction with any discretionary approvals for the project. As such, this report was prepared to provide all necessary information required to determine project consistency with the Western Riverside County MSHCP.

The project site is located within the Southwest Area Plan of the Western Riverside County MSHCP. The project site is located within Criteria Cell 6525 of sub-unit (SU5) French Valley/Lower Sedco Hills. The project site is not located within any plan-defined areas requiring surveys for narrow endemic plant species, criteria area plant species, amphibian species, or mammalian species. The project site is within the Western Riverside County MSHCP Burrowing Owl (*Athene cunicularia*) survey area. A habitat assessment has determined that the site provides suitable habitat for Burrowing Owls. Focused Burrowing Owl surveys conducted on the project site found that Burrowing Owls are not currently present (Appendix D).

Warm Springs Creek runs from east to west on the southern portion of the property. The project site contains approximately 0.98 acre of County of Riverside riparian/riverine and California Department of Fish and Wildlife jurisdictional stream and approximately 0.62 acre of waters of the United States. Hydric soils classified as Riverwash by the United States Soil Survey are found within Warm Springs Creek.

The property did not contain and isolated vernal pool habitat or depressions that would be suitable habitat for listed large Branchiopods.

## **2.2 Field Survey**

On July 3, 2019, biologist, Juan Hernandez, conducted a field survey of the project site. The ambient temperature at 9:30 a.m. was 73 degrees Fahrenheit, sunny, with winds ranging from one to three miles per hour from the southwest. The purpose of the field survey was to document the existing habitat conditions, obtain plant and animal species information, view the surrounding land uses, assess the potential for state and federal waters, assess the potential for wildlife movement corridors, and assess the presence of constituent elements for critical habitat, if present.

Linear transects spaced approximately 50 to 100 feet apart were walked across the project site for 100 percent coverage. All species observed were recorded. Global Positioning System (GPS) waypoints were taken to delineate specific habitat types, species locations, state or federal waters, and any other information that would be useful for the assessment of the project site. A comprehensive list of all plant and wildlife species that were detected during the field survey within the project site is included in Appendix A. Sensitive plant and wildlife species with the potential to occur within the project area are listed in Appendix B. Representative site photographs were taken and are included within Appendix C.

## **3.0 Existing Conditions and Results**

### **3.1 Environmental Setting**

The site is located within the city of Murrieta in Riverside County, California. It is bordered by a vacant lot to the north, a vacant lot to the east, and commercial developments to the south and west. The project site is disturbed and appears to be routinely maintained for weed abatement purposes. The site is relatively flat with a gentle slope from northwest to southeast. The elevation on the project site ranges from 1,051 feet above mean sea-level (AMSL) to 1,083 feet AMSL.

### **3.2 Soils**

Four soil classes are identified to occur on the project site by the USDA Web Soil Survey (Appendix E). Soils at the project site are classified as:

- Arlington and Greenfield fine sandy loams, 2 to 8 percent slopes, eroded;
- Arlington and Greenfield fine sandy loams, 8 to 15 percent slopes, eroded;
- Grangeville Fine sandy loam, drained, 0 to 2 percent sloped; and
- Riverwash

Based on the USDA Web Soil Survey, Riverwash is classified as a Hydric soil.

### 3.3 Plant and Habitat Communities

The project site contains three different habitat types: ruderal, disturbed coastal sage scrub, and cottonwood riparian forest. (Figure 3).

#### *Ruderal*

The project site contains approximately 4.64 acres of ruderal areas. Ruderal habitat is found in heavily disturbed areas. These habitat types are dominated by mostly non-native species of plants; however, some native species are present. These areas include roadsides, graded or disked fields, and manufactured slope areas on in-fill. Dominant vegetation observed in this habitat type includes slim oats (*Avena barbata*), ripgut brome (*Bromus diandrus*), foxtail chess (*Bromus madritensis*), foxtail barely (*Hordeum murinum*), mustard (*Brassica tournefortii*), black mustard (*Brassica nigra*), common fiddleneck (*Amsinckia intermedia*), red maids (*Calandrinia menziesii*), tocalote (*Centaurea melitensis*), lambs quarters (*Chenopodium album*), heron bill (*Erodium cicutarium*), crown daisy (*Glebionis coronaria*), sunflower (*Helianthus annuus*), stink net (*Oncosiphon piluliferum*), desert bells (*Phacelia campanularia*), Russian thistle (*Salsola tragus*), and London rocket (*Sisymbrium irio*). Eucalyptus sp. and Peruvian pepper tree (*Schinus molle*) were also present.

#### *Disturbed Coastal Sage Scrub*

The project site contains approximately 0.21 acres of disturbed coastal sage scrub. This habitat has plant species associated with coastal sage scrub but has been so heavily disturbed by human activities, that the coastal sage scrub species are not dominant. This habitat contains a high density of non-native vegetation mixed with coastal sage scrub. Species observed in this habitat type include: California buckwheat (*Eriogonum fasciculatum*), brittlebush (*Encelia fairnosa*), California sage (*Artemisia californica*), tree tobacco, mustard, brome, foxtail barely, stink net, sunflower, and black mustard.

#### *Cottonwood Riparian Forest*

The project site contains approximately 0.98 acre of cottonwood riparian forest. Dominant species observed in this habitat type include Fremont cottonwood (*Populus fremontii*), mulefat (*Baccharis salicifolia*), tamarisk (*Tamarix ramosissima*), red willow (*Salix laevigata*), arroyo willow (*Salix lasiolepis*), black willow (*Salix goodingii*), and common sunflower (*Helianthus annuus*).

### 3.4 Wildlife

General wildlife species documented on the project site or within the vicinity of the site include red-tailed hawk (*Buteo jamaicensis*), house finch (*Carpodacus mexicanus*), turkey vulture (*Cathartes aura*), American crow (*Corvus brachyrhynchos*), western fence lizard (*Sceloporus*

*occidentalis*), mourning dove (*Zenaida macroura*), common raven (*Corvus corax*), California ground squirrel (*Otospermophilus beecheyi*), coyote (*Canis latrans*), Anna's hummingbird (*Calypte anna*), desert cottontail (*Sylvilagus audubonii*), blue grey gnatcatcher (*Polioptila caerulea*), California towhee (*Melospiza crissalis*), and American bushtit (*Psaltiriparus minimus*). The complete list of species observed is included in Appendix A.

### **3.5 Regional Connectivity/Wildlife Movement**

Wildlife movement corridors link together areas of suitable habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbances. The project area was evaluated for its function as a wildlife corridor that species use to move between wildlife habitat zones. The project area is surrounded by human activity in the form of residences, commercial use, and roadways. No wildlife movement corridors were found to be present on the project site.

### **3.6 Sensitive Biological Resources**

According to the CNDDDB, a total of 68 sensitive species of plants and 61 sensitive species of animals have the potential to occur on or within the vicinity of the project area. These include those species listed or candidates for listing by the U. S. Fish and Wildlife Service (USFWS), California Department of Fish and Wildlife (CDFW) and California Native Plant Society (CNPS). All habitats with the potential to be used by sensitive species were evaluated during the site visit and a determination has been made for the presence or probability of presence within this report. This section will address those species listed as Candidate, Rare, Threatened, or Endangered under the state and federal endangered species laws or directed to be evaluated under the Western Riverside Multiple Species Habitat Conservation Plan (MSHCP). Sensitive species which have a potential to occur will also be discussed in this section. Other special status species are addressed within Appendix B.

#### **3.6.1 Sensitive Plant Resources**

A total of 25 plant species are listed as state and/or federal Threatened, Endangered, or Candidate species; are required to be reviewed under the Narrow Endemic Plant section of the Western Riverside MSHCP; are 1B.1 listed plants on the CNPS Rare Plant Inventory; or have been found to have a potential to exist on the project site. Below are descriptions of these species:

*Chaparral sand-verbena*

Chaparral sand-verbena (*Abronia villosa* var. *aurita*) is ranked 1B.1 in the CNPS rare plant inventory. It is found in sandy areas of chaparral, coastal scrub, and desert dunes habitats. No habitat for this species is present on the project site. **This species is not present.**

*Munz's onion*

Munz's onion (*Allium munzii*) is a federally endangered, state threatened, and CNPS 1B.1 listed plant. It is found in chaparral, coastal scrub, valley and foothill grasslands, cismontane woodland, and pinyon and juniper woodland. No habitat for this species is present on the project site. **This species is not present.**

*San Diego ambrosia*

San Diego ambrosia (*Ambrosia pumila*) is listed as federally endangered and 1B.1 in the CNPS rare plant inventory. Its habitat includes wetlands in chaparral, coastal sage scrub, valley and foothill grassland. No habitat for this species is present on the project site. **This species is not present.**

*Rainbow Manzanita*

Rainbow Manzanita (*Arctostaphylos rainbowensis*) is ranked 1B.1 in the CNPS rare plant inventory. It is usually found in gabbro chaparral habitat. No habitat for this species is present on the project site. **This species is not present.**

*Jaeger's milk-vetch*

Jaeger's milk-vetch (*Astragalus pachypus* var. *jaegeri*) is ranked 1B.1 in the CNPS rare plant inventory. It is often found in dry ridges and valleys and open sandy slopes. Its habitat includes coastal scrub, chaparral, valley and foothill grassland, and cismontane woodland. No habitat for this species is present on the project site. **This species is not present.**

*San Jacinto Valley crownscale*

San Jacinto Valley crownscale (*Atriplex coronata* var. *notatior*) is a federally endangered species and is ranked 1B.1 in the CNPS rare plant inventory. Its habitat includes playas, valley and foothill grassland, and vernal pools. No habitat for this species is present on the project site. **This species is not present.**

*Parish's brittlescale*

Parish's brittlescale (*Atriplex parishii*) is ranked 1B.1 in the CNPS rare plant inventory. Its habitat includes shadescale scrub, alkali sink, riparian, playas, vernal pools and wetland. No habitat for this species is present on the project site. **This species is not present.**

*Nevin's barberry*

Nevin's barberry (*Berberis nevinii*) is a federally and state endangered species and is ranked 1B.1 in the CNPS rare plant inventory. It is typically found on steep, north facing slopes or in low grade sandy washes. Its habitat includes chaparral, cismontane woodland, coastal scrub, and riparian scrub. No habitat for this species is present on the project site. **This species is not present.**

*Thread-leaved brodiaea*

The thread-leaved brodiaea (*brodiaea filifolia*) is a federally threatened, state endangered and a CNPS 1B.1 listed plant. It is found in chaparral, cismontane woodlands, coastal sage scrub, valley and foothill grasslands, vernal pools and wetland. No habitat for this species is present on the project site. **This species is not present.**

*Orcutt's brodiaea*

Orcutt's brodiaea (*Brodiaea orcuttii*) is ranked 1B.1 in the CNPS rare plant inventory. The species occurs in mesic, clay habitats, usually in vernal pools and small drainages. Its habitats include vernal pools, valley and foothill grassland, closed-cone coniferous forest, cismontane woodland, chaparral, meadows, and seeps. No habitat for this species is present on the project site. **This species is not present.**

*Vail Lake ceanothus*

Vail Lake ceanothus (*Ceanothus ophiophilus*) is a federally threatened, state endangered species and is ranked 1B.1 in the CNPS rare plant inventory. The species typically occurs in gabbro seams on north-facing ridges on the eastern sides of mountains in chaparral habitat. No habitat for this species is present on the project site. **This species is not present.**

*Smooth tarplant*

Smooth tarplant (*Centromadia pungens ssp. laevis*) is ranked 1B.1 in the CNPS rare plant inventory. The species occurs in habitats that include alkali playa, chenopod scrub, meadows and seeps, riparian woodlands, wetlands, and valley and foothill grasslands. No habitat for this species is present on the project site. **This species is not present.**

*Orcutt's pincushion*

Orcutt's pincushion (*Chaenactis glabriuscula var. orcuttiana*) is ranked 1B.1 in the CNPS rare plant inventory. The species occurs in sandy sites of coastal bluff scrub, and coastal dunes habitat. No habitat for this species is present on the project site. **This species is not present.**

*Parry's spineflower*

Parry's spineflower (*Chorizanthe parryi var. parryi*) is ranked 1B.1 in the CNPS rare plant inventory. The species occurs in dry, sandy soils on dry slopes and flats, sometimes at the

interface of two vegetations types, such as chaparral and oak woodland. Its habitat includes coastal scrub, chaparral, cismontane woodland, valley and foothill grassland. No habitat for this species is present on the project site. **This species is not present.**

*Slender-horned spineflower*

Slender - horned spineflower (*Dodecahema leptoceras*) is a federally and state listed endangered species and is ranked 1B.1 in the CNPS rare plant inventory. Its habitat includes chaparral, cismontane woodland, and coastal scrub (alluvial fan sage scrub). No habitat for this species exists on the project site. **This species is not present.**

*San Diego button-celery*

San Diego button-celery (*Eryngium aristulatum* var. *parishii*) is a federally and state listed endangered species and is ranked 1B.1 in the CNPS rare plant inventory. Its habitat includes coastal scrub, valley & foothill grasslands, vernal pools, and wetlands. Its flowering period is from May to June. No habitat for this species is present on the project site. **This species is not present.**

*Campbell's liverwort*

Campbell's liverwort (*Geothallus tuberosus*) is ranked 1B.1 in the CNPS rare plant inventory. Its habitat includes coastal scrub, and vernal pools. No habitat for this species is present on the project site. **This species is not present.**

*Tecate cypress*

Tecate cypress (*Hesperocyparis forbesii*) is ranked 1B.1 in the CNPS rare plant inventory. It is found on clay or gabbro, primarily on north-facing slopes and in groves often associated with chaparral habitat. Its habitat includes closed-cone coniferous forest, and chaparral. No habitat for this species is present on the project site. **This species is not present.**

*Coulter's goldfields*

Coulter's goldfields (*Lasthenia glabrata* ssp. *coulteri*) is ranked 1B.1 in the CNPS rare plant inventory. Its habitat includes alkali playas, marsh, swamp, salt marsh, vernal pool, and wetland. No habitat for this species is present on the project site. **This species is not present.**

*Parish's meadowfoam*

Parish's meadowfoam (*Limnanthes alba* ssp. *parishii*) is a state listed endangered species. It is ranked 1B.2 in the CNPS rare plant inventory. It is found in lower montane coniferous forest, meadows and seeps, and vernal pools. No habitat for this species exists on the project site. **This species is not present.**



*Spreading navarretia*

Spreading navarretia (*Navarretia fossalis*) is a federally listed threatened species and is ranked 1B.1 in the CNPS rare plant inventory. Its habitat includes alkali playa, chenopod scrub, marsh and swamp, vernal pools, and wetlands. This species is typically found in swales and vernal pools, often surrounded by other habitat types. No habitat for this species is present on the project site. **This species is not present.**

*Prostrate vernal pool navarretia*

Prostrate vernal pool navarretia (*Navarretia prostrata*) is ranked 1B.1 in the CNPS rare plant inventory. It is typically found in alkaline soils in grassland habitat, or in vernal pools. Its habitat includes coastal scrub, valley and foothill grasslands, vernal pools, meadows, and seeps. No habitat for this species is present on the project site. **This species is not present.**

*California Orcutt grass*

California Orcutt grass (*Orcuttia californica*) is a federal and state endangered species. It is ranked 1B.1 in the CNPS rare plant inventory. It is found in vernal pools. No habitat for this species is present on the project site. **This species is not present.**

*Bottle liverwort*

Bottle liverwort (*Sphaerocarpos drewei*) is ranked 1B.1 in the CNPS rare plant inventory. Its habitats include chaparral and coastal scrub. No habitat for the species is present on the project site. **This species is not present.**

### **3.6.2 Sensitive Animal Resources**

A total of 22 animal species are listed as state and/or federal Threatened, Endangered, Candidate will be reviewed in this section. Sensitive species which have a potential to occur will also be discussed in this section. All sensitive species within a 5-mile radius of project area were reviewed and a complete list of those species are discussed within Appendix B. Below are descriptions of these species:

*Cooper's hawk*

The Cooper's hawk (*Accipiter cooperii*) is a CDFW watch list wildlife species. It is found in riparian areas with stands of willow and cottonwoods. It nests in trees and its nesting season is between February 15 and August 15. There is potential habitat for this species to be present on the project site. **Potential to be present.**

*Tricolored blackbird*

Tricolored blackbird (*Agelaius tricolor*) is state listed as candidate endangered and listed by the CDFW as a species of special concern. The species occupies freshwater marshes with canopies of willows and other riparian trees. This species requires open accessible water and suitable



foraging space. There is no habitat for this species on the project site. **The species is not present.**

*Arroyo Toad*

Arroyo Toad (*Anaxyrus californicus*) is a federally listed endangered species and a CDFW Species of Special Concern. The most favorable breeding habitat for this species consists of slow-moving shallow pools, nearby sandbars, and adjacent stream terraces. There is no habitat for this species on the project site. **The species is not present.**

*California glossy snake*

California glossy snake (*Arizona elegans occidentalis*) is a CDFW Species of Special Concern. This species is found in arid scrub, rocky washes, grassland and chaparral habitats, often with loose or sandy soils. There is potential habitat for this species to be present on the project site. **Potential to be present.**

*Orange-throated whiptail*

The orange-throated whiptail (*Aspidoscelis hyperythra*) is a CDFW watch list wildlife species. It is found in chaparral, coastal sage scrub, and cismontane woodlands. This species prefers washes and other sandy areas with patches of brush and rocks. There is potential habitat for this species to be present on the project site. **Potential to be present.**

*Coastal whiptail*

The coastal whiptail (*Aspidoscelis tigris stejnegeri*) is a CDFW Species of Special Concern. It is typically found in hot, dry, flat open spaces in deserts or semi-arid areas. There is potential habitat for this species to be present on the project site. **Potential to be present.**

*Burrowing owl*

Burrowing owl (*Athene cunicularia*) is a CDFW species of special concern. This species is found in coastal prairie, coastal scrub, great basin grassland, great basin scrub, mojavean desert scrub, sonoran desert scrub, and valley and foothill grassland. There is potential habitat present on project site. Focused surveys for this species were conducted on the project site. **This species is not present.**

*Vernal pool fairy shrimp*

Vernal pool fairy shrimp (*Branchinecta lynchi*) is a federally listed threatened species. This species is found in seasonal pools of water in valley and foothill grasslands. This species typically inhabits small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools. The project site does not contain suitable habitat for this species. **This species is not present.**

*San Diego fairy shrimp*

San Diego fairy shrimp (*Branchinecta sandiegonensis*) is a federally listed endangered species. This species is found in chaparral, coastal scrub, vernal pool, and wetland habitats. There is no habitat for this species on the project site. **The species is not present.**

*Swainson's hawk*

Swainson's hawk (*Buteo swainsoni*) is a state listed threatened species. This species favors open grasslands for foraging but also occurs in agricultural settings. It relies on scattered stands of trees near agricultural fields and grasslands for nesting sites. Its habitats include great basin grassland, riparian forest, riparian woodland, and valley and foothill grassland. The project site does not contain suitable habitat for this species. **This species is not present.**

*Western snowy plover*

Western snowy plover (*Charadrius alexandrinus nivosus*) is federally listed threatened species and a CDFW Species of Special Concern. It is found in great basin standing waters, sand shore, and wetland. This species needs sandy, gravelly, or friable soils for nesting. The project site does not contain suitable habitat for this species. **This species is not present.**

*Western yellow-billed cuckoo*

Western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is a federally listed threatened and state listed endangered species. This species typically nests in riparian jungles of willows, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape. It is found in riparian forest habitat. The project site does not contain suitable habitat for this species. **This species is not present.**

*San Bernardino kangaroo rat*

San Bernardino kangaroo rat (*Dipodomys merriami parvus*) is a federally listed endangered species and a CDFW Species of Special Concern. It is found in coastal scrub habitat. This species is found in alluvial scrub vegetation on sandy loam substrates, characteristic of alluvial fans and flood plains. It needs early to intermediate seral stages. The project site does not contain suitable habitat for this species. **This species is not present.**

*Stephen's kangaroo rat*

Stephens' kangaroo rat (*Dipodomys stephensi*) is a federally listed endangered and state listed threatened species. This species is found in coastal sage scrub with sparse vegetation cover, and in valley and foothill grasslands. This species prefers buckwheat, chamise, brome grass, and filaree and will burrow into firm soil. The project site does not contain suitable habitat for this species. **This species is not present.**

*Quino checkerspot butterfly*

Quino checkerspot butterfly (*Euphydryas editha quino*) is a federally listed endangered species. It is found in chaparral and coastal sage scrub. This species requires high densities of food plants, including *Plantago erecta*, *P. insularis*, and *Orthocarpus purpurescens*. The project site does not have suitable habitat for this species. **This species is not present.**

*Bald eagle*

Bald eagle (*Haliaeetus leucocephalus*) is a state listed endangered and CDFW fully protected species. This species is found in lower montane coniferous forest and old-growth. They nest in large old-growth or tress with open branches, especially ponderosa pine. The project site does not contain suitable habitat for this species. **This species is not present.**

*San Diego black-tailed jackrabbit*

San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) is a CDFW Species of Special Concern. This species is found in coastal sage scrub throughout Southern California. There is suitable habitat for this species to be present on the project site. **Potential to be present.**

*Coast horned lizard*

Coast horned lizard (*Phrynosoma blainvillii*) is a CDFW Species of Special Concern. This species is found in coastal sage scrub, coastal bluff scrub, chaparral, cismontane woodland, desert wash, pinon and juniper woodlands, riparian scrub, riparian woodland, and valley and foothill grassland. This species thrives in open areas for sunning, bushes for cover, patches of loos soil for burial, and an abundant supply of ants and other insects. There is potential habitat for this species to be present on the project site. **Potential to be present.**

*Coastal California gnatcatcher*

Coastal California gnatcatcher (*Polioptila californica californica*) is a federally listed threatened species and CDFW Species of Special Concern. This species is found in coastal bluff scrub and coastal scrub habitat. This species is typically found in low, coastal sage scrub in arid washes, on mesas and slopes. The project site does not contain suitable habitat for this species. **This species is not present.**

*California red-legged frog*

California red-legged frog (*Rana draytonii*) is a federally listed threatened species and a CDFW Species of Special Concern. The species is aquatic and found in habitats such as marshes, swamps, wetlands, riparian forests, riparian woodlands, riparian scrub, and standing waters. The project site does not contain suitable habitat for this species. **This species is not present.**

#### *Riverside fairy shrimp*

Riverside fairy shrimp (*Streptocephalus woottoni*) is a federally listed endangered species. This species is found in coastal scrub, valley and foothill grassland, vernal pool, and wetland habitat. This species typically inhabits seasonally astatic pools filled by winter/spring rains. The project site does not contain suitable habitat for this species. **This species is not present.**

#### *Least Bell's vireo*

Least Bell's vireo (*Vireo bellii pusillus*) is a federal and state listed endangered species. This species is found in riparian forest, riparian scrub, and riparian woodland. Nesting habitat of this species is restricted to willow and/or mulefat dominated riparian scrub along permanent or nearly permanent streams. The project site does contain suitable habitat for this species. **Potential to be present.**

### **3.6.3 Nesting Birds**

Migratory non-game native bird species are protected under the federal Migratory Bird Treaty Act. Additionally, Sections 3503, 3503.5, and 3513 of the California Fish and Game Code prohibit take of all birds and their active nests. The project site contains shrubs and trees that can support nesting songbirds or raptors. The ruderal, disturbed coastal sage scrub, and the cottonwood riparian forest are considered habitat that can be utilized by nesting birds and raptors during the nesting bird season of February 1 through September 15.

### **3.7 Jurisdictional Waters**

Warm Springs Creek runs from east to west on the southern portion of the site. The project site contains approximately 0.98 acre of County of Riverside riparian/riverine and California Department of Fish and Wildlife jurisdictional stream and approximately 0.62 acre of waters of the United States. Hydric soils classified as Riverwash by the United States Soil Survey are found within Warm Springs Creek.

The site does not contain and isolated vernal pool habitat or depressions that would be suitable habitat for listed large Branchiopods.

### **4.0 Project Impacts**

No project plans are currently available for the project. Project impacts will be determined at a later date.

#### **4.1 Impacts to Habitats**

#### **4.2 Impacts to Sensitive Species**

#### **4.3 Impacts to Nesting Birds**

If the project will remove shrubs or trees between February 1 and September 15, the project will have a potential to impact nesting birds.

#### **4.4 Impacts to Critical Habitat**

The project is not located within designated federal critical habitat. No impact to critical habitat would occur.

#### **4.5 Impacts to Wildlife Movement Corridors**

The project site is located within the Southwest Area Plan of the Western Riverside County MSHCP. The project site is located within Criteria Cell 6525 of sub-unit (SU5) French Valley/Lower Sedco Hills. Warm Springs Creek runs from east to west on the southern portion of the site. It is likely that the onsite drainage serves a function in local wildlife movement.

The proposed project has been designed to avoid impacts to the onsite drainage. No project activities will occur within the onsite drainage prior to, during, and following construction, including grading, manufactured slopes, fuel modification zones, and staging areas. In addition, part of the goal of the Western Riverside MSHCP is to keep reserved lands contiguous and connected; therefore, avoidance of the onsite drainage and participation in and compliance with the Western Riverside MSHCP guidelines and requirements (i.e., *Section 6.1.4 Urban/Wildlands Interface Guidelines*) will result in no impacts to wildlife corridors.

#### **4.6 Conflict with Local Policies or Ordinances Protecting Biological Resources**

Should the proposed project result in the removal of trees, it will be required to comply with the City of Murrieta's Tree Preservation Ordinance.

#### **4.7 Conflict with the Provisions of an Adopted Habitat Conservation Plan, Natural Community Conservation Plan, or Other Approved Local, Regional, or State Habitat Conservation Plan**

The project is within the Western Riverside MSHCP. If Western Riverside MSHCP guidelines and requirements are followed, no conflicts are expected.

#### **4.8 State and Federal Drainages**

Warm Springs Creek runs from east to west on the southern portion of the property. The project site contains approximately 0.98 acre of County of Riverside riparian/riverine and California Department of Fish and Wildlife jurisdictional stream and approximately 0.62 acre of waters of

the United States. Hydric soils classified as Riverwash by the United States Soil Survey are found within Warm Springs Creek.

The property did not contain and isolated vernal pool habitat or depressions that would be suitable habitat for listed large Branchiopods.

## **5.0 Western Riverside County MSHCP Consistency Analysis**

### **5.1 MSHCP Requirements**

The project site is located within the Southwest Area Plan of the Western Riverside County MSHCP. The project site is located within Criteria Cell 6525 of sub-unit (SU5) French Valley/Lower Sedco Hills (Figure 4). Conservation within this Cell will contribute to assembly of Proposed Constrained Linkage 15. Conservation within this Cell will focus on Riversidean alluvial fan sage scrub habitat along Warm Springs Creek and adjacent grassland habitat. Areas conserved within this Cell will be connected to Riversidean alluvial fan sage scrub habitat proposed for conservation in Cell #6409 to the north. Conservation within this Cell will be approximately 5% of the Cell focusing in the northeastern portion of the Cell (MSHCP Southwest Area Plan).

A discussion of the applicable Western Riverside County MSHCP requirements follows:

#### *Section 6.1.2 Species Associated with Riparian/Riverine Habitat and Vernal Pools*

The proposed project area contains approximately 0.98 acre of drainage feature and associated riparian/wetland habitat that would be considered Western Riverside MSHCP riparian/riverine resources. This area has been delineated and avoidance of the delineated area will be incorporated into the project design. The site contains a wetland/riparian area associated with Warm Springs Creek and is composed of cottonwood riparian forest with an understory dominated by mulefat.

### *Section 6.1.3 Sensitive Plant Species*

The project site is not located within the Western Riverside County MSHCP Narrow Endemic Plant Species Survey Area (NEPSSA) pursuant to Section 6.1.3 of the MSHCP. In addition, the project site is not located within the Western Riverside County MSHCP Criteria Area Plant Species Survey Area (CAPSSA) pursuant to Section 6.3.2 of the Western Riverside County MSHCP. Therefore, the NEPSSA and CAPSSA requirements are not applicable to the project.

### *Section 6.1.4 Urban/Wildlands Interface Guidelines*

The project site is not located adjacent to a Western Riverside County MSHCP Conservation Area. However, the site does contain a portion of Warm Springs Creek that will not be impacted by project activities. Warm Springs Creek is tributary to Murrieta Creek which ultimately flows to the Santa Margarita River. Therefore, the Urban/Wildlands Interface Guidelines (Section 6.14 of the MSHCP) are required to be applied to the project.

No project construction activities will occur within the onsite drainage and associated riparian habitat. The following mitigation measures shall be incorporated into the project to reduce potential impacts to the drainage:

Drainage – Water Quality Best Management Practices (BMPs) shall be incorporated, including the National Pollutant Discharge Elimination Systems (NPDES) and erosion control requirements from the Regional Water Quality Control Board to ensure that the quantity and quality of surface water runoff discharged into the onsite drainage is not altered in an adverse way when compared with existing conditions. These BMPs will be implemented as part of the Storm Water Pollution Prevention Plan (SWPPP) in order to ensure that water quality is not degraded.

Toxics - Measures such as those employed to address drainage issues will be implemented for toxics. Land uses proposed in proximity to the onsite drainage that use chemicals or generate bioproducts that are potentially toxic or may adversely affect wildlife species, habitat or water quality must incorporate measures to ensure that application of such chemicals does not result in discharge to the drainage.

Lighting - Any night lighting will be directed away from adjacent riparian habitat to protect species from direct nighttime lighting. If nighttime lighting is required, shielding will be incorporated in the design to ensure ambient nighttime lighting is not increased in the adjacent riparian habitat areas.

Noise - Proposed noise generating land uses affecting adjacent riparian areas must incorporate setbacks to minimize the effects of noise on the drainage area. The drainage area should not be subject to noise that would exceed residential noise standards.



Invasives - Invasive, non-native plant species must not be used as landscaping materials for development that is proposed adjacent to the onsite drainage area. Table 6-2 of Volume 1 of the MSHCP lists the plants that should be avoided.

Barriers - Proposed land uses adjacent to the onsite drainage area must incorporate barriers, such as native landscaping, rocks/boulders, fencing, walls, signage and/or other appropriate mechanisms, to minimize unauthorized public access, domestic animal predation, illegal trespass or dumping.

Grading/Land Development - Manufactured slopes associated with proposed site development must not extend into the onsite drainage area.

#### *Section 6.3.2 Additional Surveys and Procedures*

The project site is located within the Western Riverside County MSHCP Additional survey area for Los Angeles pocket mouse (*Perognathus longimembris brevinasus*) and Burrowing Owl (*Athene cunicularia*). Small mammal surveys for Los Angeles pocket mouse were conducted from July 6 to July 11, 2019. The surveys were negative for Los Angeles pocket mouse. In addition, focused Burrowing Owl surveys were conducted on July 17, 23, 29, and 31, 2019. No Burrowing Owl or Burrowing Owl sign were found. Burrowing Owl have been determined to not be present on the site. Refer to Appendix D.

## **6.0 Recommendations**

Based upon the findings of this report, it is recommended that the following studies or surveys be performed as part of the project, as required by the Western Riverside County MSHCP:

### Sensitive Species

- Cooper's hawk, orange-throated whiptail, coastal whiptail, coastal horned lizard, San Diego black-tailed jackrabbit, coastal California gnatcatcher, Bell's sage sparrow, and Robinson's pepper grass are adequately covered under the MSHCP. The proposed project must be consistent with the Western Riverside MSHCP. Payment of the appropriate development mitigation fees will mitigate any impacts to these species. A fee schedule can be found in the Local Development Mitigation Fee Schedule for Fiscal Year 2017. Robinson's pepper grass is not covered under the MSHCP but due to the small project impact, the disturbed nature of the project site, and that habitat for this species is being conserved under the MSHCP, impacts to species from the project would be considered less than significant under CEQA.
- Three days prior to any ground disturbing activities or vegetation removal, a qualified biological monitor should conduct a preconstruction survey to identify any sensitive biological resources to flag for avoidance. Any reptile species that may be present within the project area shall be relocated outside of the impact areas. In addition, any plant



species that may be present within the project area shall be relocated outside of the impact areas.

#### Burrowing Owl

- No Burrowing Owl were found during focused surveys. Therefore, Burrowing Owl are considered not to be present. However, due to the presence of suitable Burrowing Owl habitat, it is recommended that a preconstruction survey be performed prior to the commencement of project activities.

#### Nesting Birds

- It is recommended that vegetation removal be conducted during the non-nesting season for migratory birds to avoid direct impacts. The nesting season is between February 1 and September 15.
- If vegetation removal will occur during the migratory bird nesting season, between February 1 and September 15, it is recommended that preconstruction nesting bird surveys be performed within three days prior to vegetation removal.
- If active nests are found during nesting bird surveys, they shall be flagged and a 200-foot buffer shall be fenced around the nests.
- A biological monitor shall visit the site once a week during ground disturbing activities to ensure all fencing is in place and no sensitive species are being impacted.

## 7.0 Certification

I hereby certify that the statements furnished above and in the attached exhibits present the 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.



Date 08-09-2019

Signed \_\_\_\_\_

PROJECT MANAGER

Fieldwork Performed By:

Juan Jose Hernandez

\_\_\_\_\_  
PRINCIPAL BIOLOGIST

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
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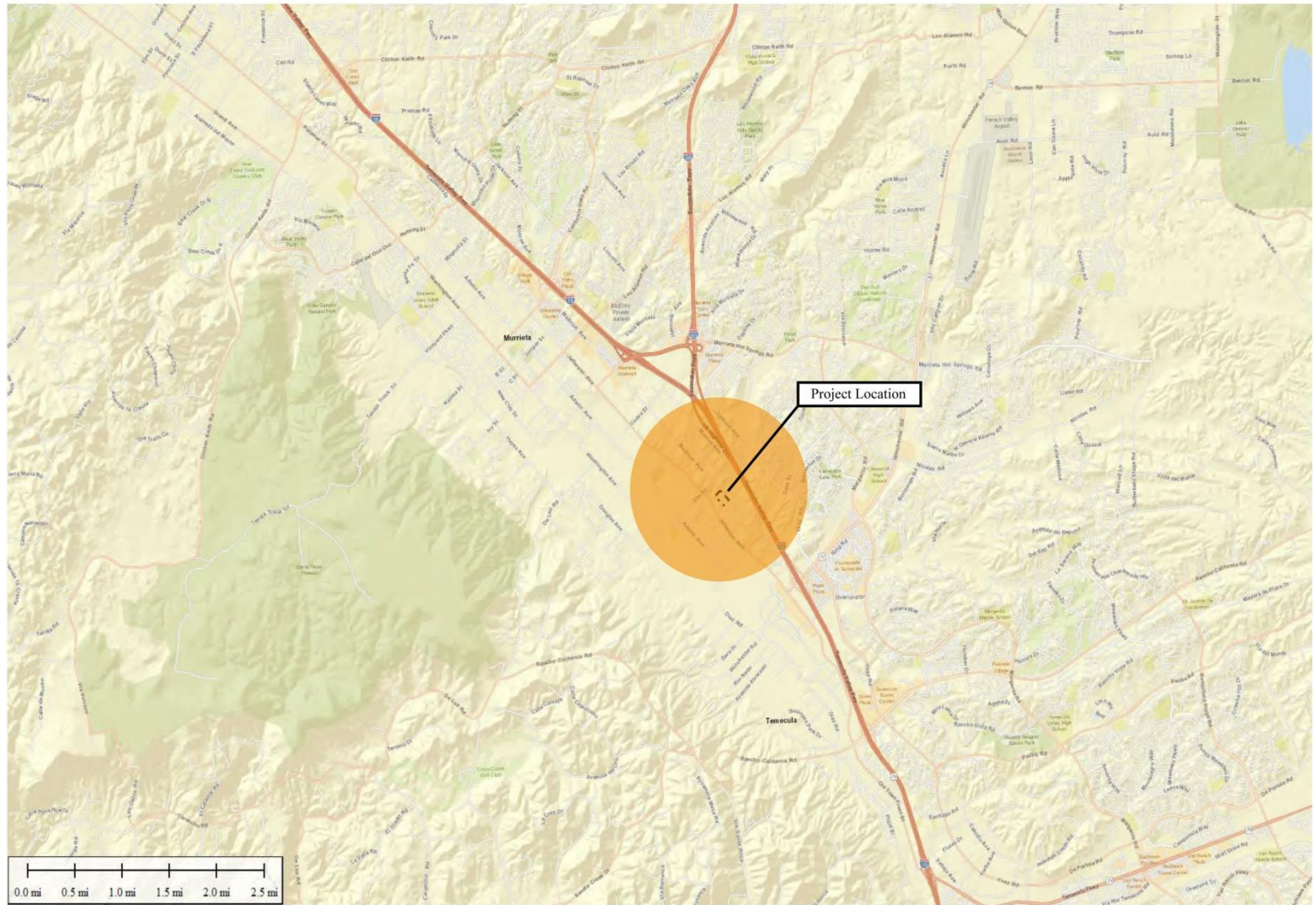


**Figure 1**  
Location Map  
APN 910-230-003 Biological Studies  
Murrieta, Riverside County, CA


**Legend**

 Property Line

**N**  


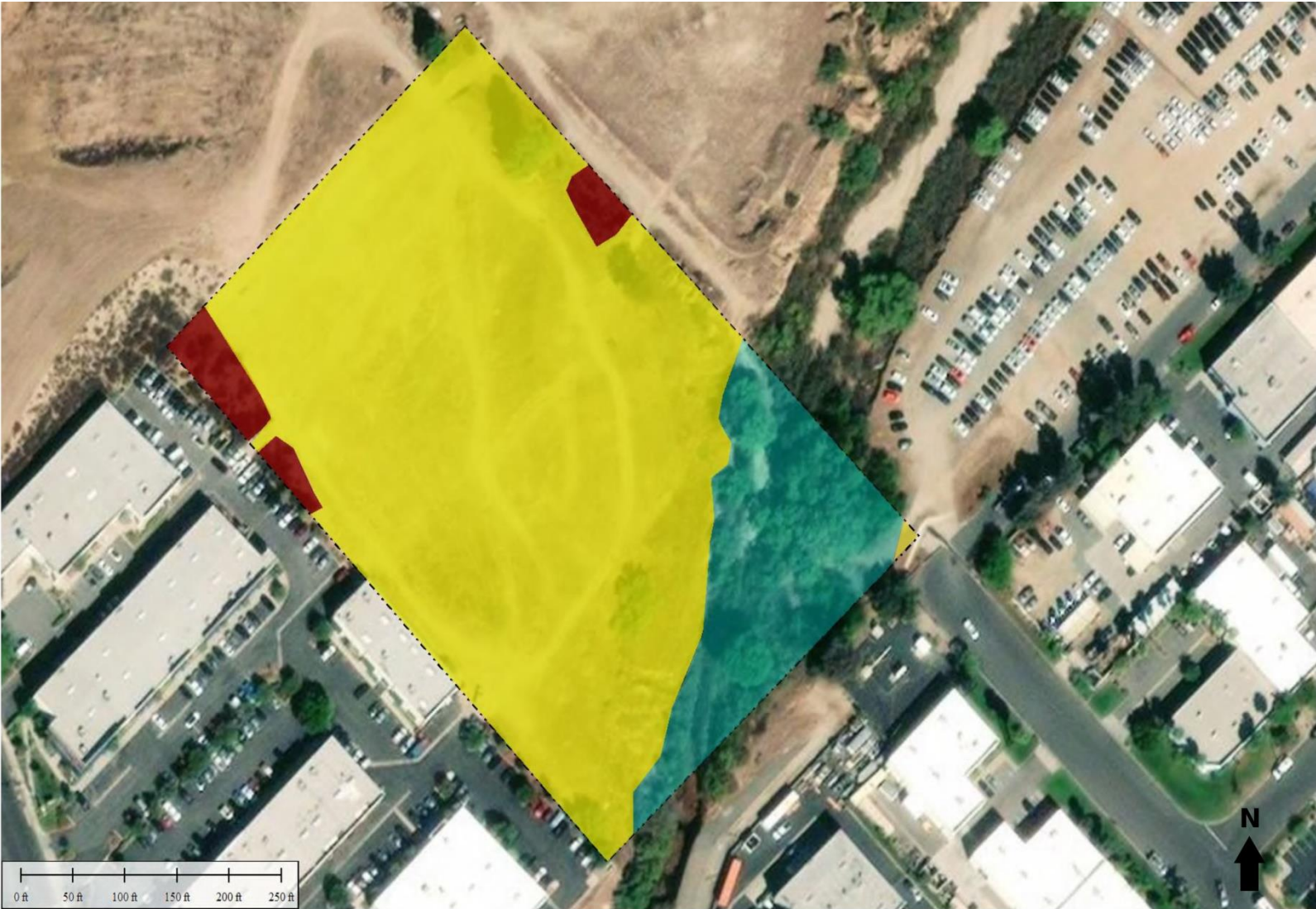


**Figure 2**  
 Vicinity Map  
 APN 910-230-003 Biological Studies  
 Murrieta, Riverside County, CA





**Legend**  
 Property Line

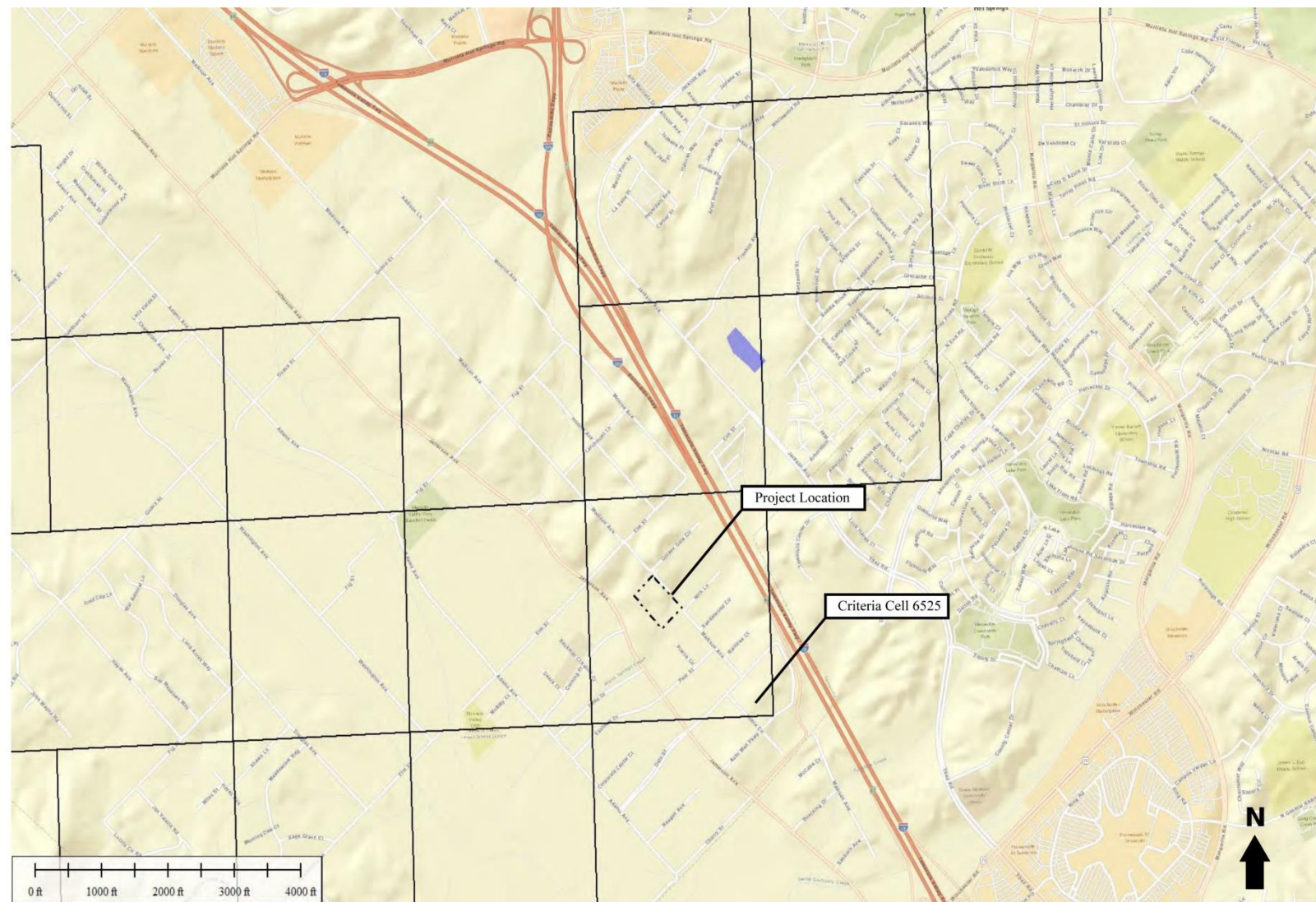






**Figure 3**  
Habitat Map  
APN 910-230-003 Biological Studies  
Murrieta, Riverside County, CA

Legend			
	Property Line		0.98 Acre of Cottonwood Riparian Forest
	4.64 Acres of Ruderal Habitat		0.21 Acre of Disturbed Coastal Sage Scrub



**Figure 4**  
MSHCP Map  
APN 910-230-003 Biological Studies  
Murrieta, Riverside County, CA

**Legend**

- |   |                |  |                       |
|---|----------------|--|-----------------------|
|  | Property Line  |  | MSHCP Conserved Lands |
|  | Criteria Cells |  |                       |



## Appendix A Species List

### Plant List

<i>Amsinckia intermedia</i>	Common fiddleneck
<i>Artemisia californica</i>	California sage
<i>Avena barbata</i>	Slim oats
<i>Baccharis salicifolia</i>	Mulefat
<i>Brassica nigra</i>	Black mustard
<i>Brassica tournefortii</i>	Mustard
<i>Bromus diandrus</i>	Ripgut brome
<i>Bromus madritensis</i>	Foxtail chess
<i>Calandrinia menziesii</i>	Red maids
<i>Camissoniopsis bistorta</i>	California sun cup
<i>Centaurea melitensis</i>	Tocalote
<i>Chenopodium album</i>	Lambs quarters
<i>Cucurbita palmata</i>	Coyote melon
<i>Datura wrightii</i>	Jimsonweed
<i>Deinandra sp.</i>	
<i>Encelia fairnosa</i>	Brittlebush
<i>Erigeron bonariensis</i>	Flax-leaved horseweed
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Erodium cicutarium</i>	Heron bill
<i>Eucalyptus sp.</i>	
<i>Euphorbia albomarginata</i>	Rattlesnake weed
<i>Foeniculum vulgare</i>	Fennel
<i>Glebionis coronaria</i>	Crown daisy
<i>Helianthus annuus</i>	Sunflower
<i>Heterotheca grandiflora</i>	Telegraph weed
<i>Hordeum murinum</i>	Foxtail barely
<i>Lepidium sp.</i>	
<i>Nicotiana glauca</i>	Tree tobacco
<i>Oncosiphon piluliferum</i>	Stink net

<i>Pinus sp.</i>	
<i>Populus fremontii</i>	Fremont cottonwood
<i>Salsola tragus</i>	Russian thistle
<i>Salix goodingii</i>	Black willow
<i>Salix laevigata</i>	Red willow
<i>Salix lasiolepis</i>	Arroyo willow
<i>Salvia apiana</i>	White sage
<i>Sambucus nigra ssp. caerulea</i>	Blue elderberry
<i>Schinus molle</i>	Peruvian pepper tree
<i>Sisymbrium irio</i>	London rocket
<i>Washingtonia robusta</i>	Mexican fan palm

### **Animal List**

<i>Buteo jamaicensis</i>	Red-tailed hawk
<i>Calypte anna</i>	Anna's hummingbird
<i>Canis latrans</i>	Coyote
<i>Carpodacus mexicanus</i>	House finch
<i>Cathartes aura</i>	Turkey vulture
<i>Corvus brachyrhynchos</i>	American crow
<i>Melospiza crissalis</i>	California towhee
<i>Otospermophilus beecheyi</i>	California ground squirrel
<i>Poliophtila caerulea</i>	Blue-grey gnatcatcher
<i>Procyon lotor</i>	Raccoon
<i>Psittacus erithacus</i>	American parakeet
<i>Sceloporus occidentalis</i>	Western fence lizard
<i>Sylvilagus audubonii</i>	Desert cottontail
<i>Thryomanes bewickii</i>	Bewick's wren
<i>Zenaidura macroura</i>	Mourning dove

SciName	ComName	FedList	CalList	RPlantRank	OthrStatus	GenHab	MicroHab	Presence/Absence
<i>Abronia villosa</i> var. <i>aurita</i>	chaparral sand-ver-bena	None	None	1B.1	BLM_S-Sensitive   USFS_S-Sensitive	Chaparral, coastal scrub, desert dunes.	Sandy areas. -60-1570 m.	No habitat for this species. <b>Species is not present.</b>
<i>Allium munzii</i>	Munz's onion	Endangered	Threatened	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, coastal scrub, cismontane woodland, pinyon and juniper woodland, valley and foothill grassland.	Heavy clay soils; grows in grasslands & openings within shrublands or woodlands. 375-1040 m.	No habitat for this species. <b>Species is not present.</b>
<i>Almutaster pauciflorus</i>	alkali marsh aster	None	None	2B.2		Meadow and seeps.	Alkaline. 60-765 m.	No habitat for this species. <b>Species is not present.</b>
<i>Ambrosia pumila</i>	San Diego ambrosia	Endangered	None	1B.1		Chaparral, coastal scrub, valley and foothill grassland.	Sandy loam or clay soil; sometimes alkaline. In valleys; persists where disturbance has been superficial. Sometimes on margins or near vernal pools. 3-580 m.	No habitat for this species. <b>Species is not present.</b>
<i>Arctostaphylos rainbowensis</i>	Rainbow manzanita	None	None	1B.1	BLM_S-Sensitive   USFS_S-Sensitive	Chaparral.	Usually found in gabbro chaparral. 100-870 m.	No habitat for this species. <b>Species is not present.</b>
<i>Astragalus pachypus</i> var. <i>jaegeri</i>	Jaeger's milk-vetch	None	None	1B.1	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden   USFS_S-Sensitive	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland.	Dry ridges and valleys and open sandy slopes; often in grassland and oak-chaparral. 365-1040 m.	No habitat for this species. <b>Species is not present.</b>
<i>Atriplex coronata</i> var. <i>notator</i>	San Jacinto Valley crowscale	Endangered	None	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Playas, valley and foothill grassland, vernal pools.	Alkaline areas in the San Jacinto River Valley. 35-460 m.	No habitat for this species. <b>Species is not present.</b>
<i>Atriplex parishii</i>	Parish's brittlescale	None	None	1B.1	USFS_S-Sensitive	Vernal pools, chenopod scrub, playas.	Usually on drying alkali flats with fine soils. 4-1420 m.	No habitat for this species. <b>Species is not present.</b>

<i>Atriplex serenana</i> var. <i>davidsonii</i>	Davidson's saltscale	None	None	1B.2		Coastal bluff scrub, coastal scrub.	Alkaline soil. 0-480 m.	No habitat for this species. <b>Species is not present.</b>
<i>Ayenia compacta</i>	California ayenia	None	None	2B.3		Mojavean desert scrub, Sonoran desert scrub.	Sandy and gravelly washes in the desert; dry desert canyons. 60-1830 m.	No habitat for this species. <b>Species is not present.</b>
<i>Berberis nevinii</i>	Nevin's barberry	Endangered	Endangered	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden   SB_SBBG-Santa Barbara Botanic Garden	Chaparral, cismontane woodland, coastal scrub, riparian scrub.	On steep, N-facing slopes or in low grade sandy washes. 90-1590 m.	No habitat for this species. <b>Species is not present.</b>
<i>Brodiaea filifolia</i>	thread-leaved brodiaea	Threatened	Endangered	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral (openings), cismontane woodland, coastal scrub, playas, valley and foothill grassland, vernal pools.	Usually associated with annual grassland and vernal pools; often surrounded by shrubland habitats. Occurs in openings on clay soils. 15-1030 m.	No habitat for this species. <b>Species is not present.</b>
<i>Brodiaea orcuttii</i>	Orcutt's brodiaea	None	None	1B.1	BLM_S-Sensitive   USFS_S-Sensitive	Vernal pools, valley and foothill grassland, closed-cone coniferous forest, cismontane woodland, chaparral, meadows and seeps.	Mesic, clay habitats; usually in vernal pools and small drainages. 30-1615 m.	No habitat for this species. <b>Species is not present.</b>
<i>Brodiaea santarosae</i>	Santa Rosa Basalt brodiaea	None	None	1B.2	USFS_S-Sensitive	Valley and foothill grassland.	Santa Rosa Basalt, 585-1045 m.	No habitat for this species. <b>Species is not present.</b>
<i>Calochortus plummerae</i>	Plummer's mariposa-lily	None	None	4.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Coastal scrub, chaparral, valley and foothill grassland, cismontane woodland, lower montane coniferous forest.	Occurs on rocky and sandy sites, usually of granitic or alluvial material. Can be very common after fire. 60-2500 m.	No habitat for this species. <b>Species is not present.</b>



<i>Calochortus weedii</i> var. <i>intermedius</i>	intermediate mariposa-lily	None	None	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden   USFS_S-Sensitive	Coastal scrub, chaparral, valley and foothill grassland.	Dry, rocky calcareous slopes and rock outcrops. 60-1575 m.	No habitat for this species. <b>Species is not present.</b>
<i>Caulanthus simulans</i>	Payson's jewelflower	None	None	4.2	USFS_S-Sensitive	Chaparral, coastal scrub.	Frequently in burned areas, or in disturbed sites such as streambeds; also on rocky, steep slopes. Sandy, granitic soils. 90-2200 m.	No habitat for this species. <b>Species is not present.</b>
<i>Ceanothus ophiocylus</i>	Vail Lake ceanothus	Threatened	Endangered	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral.	Gabbro seams on north-facing ridges on the eastern sides of mountains. 620-915 m.	No habitat for this species. <b>Species is not present.</b>
<i>Ceanothus pendletonensis</i>	Pendleton ceanothus	None	None	1B.2		Chaparral, cismontane woodland.	Granitic. 110-870 m.	No habitat for this species. <b>Species is not present.</b>
<i>Centromadia pungens</i> ssp. <i>laevis</i>	smooth tarplant	None	None	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland.	Alkali meadow, alkali scrub; also in disturbed places. 5-1170 m.	No habitat for this species. <b>Species is not present.</b>
<i>Chaenactis glabriuscula</i> var. <i>orcuttiana</i>	Orcutt's pincushion	None	None	1B.1	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden	Coastal bluff scrub, coastal dunes.	Sandy sites. 3-80 m.	No habitat for this species. <b>Species is not present.</b>
<i>Chorizanthe parryi</i> var. <i>parryi</i>	Parry's spineflower	None	None	1B.1	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden   USFS_S-Sensitive	Coastal scrub, chaparral, cismontane woodland, valley and foothill grassland.	Dry slopes and flats; sometimes at interface of 2 vegetation types, such as chaparral and oak woodland. Dry, sandy soils. 90-1220 m.	No habitat for this species. <b>Species is not present.</b>

Chorizanthe polygonoides var. longispina	long-spined spine-flower	None	None	1B.2	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, coastal scrub, meadows and seeps, valley and foothill grassland, vernal pools.	Gabbroic clay. 30-1630 m.	No habitat for this species. <b>Species is not present.</b>
Clarkia delicata	delicate clarkia	None	None	1B.2	BLM_S-Sensitive	Cismontane woodland, chaparral.	Often on gabbro soils. 95-1800 m.	No habitat for this species. <b>Species is not present.</b>
Clinopodium chandleri	San Miguel savory	None	None	1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Chaparral, cismontane woodland, coastal scrub, riparian woodland, valley and foothill grassland.	Rocky, gabbroic or metavolcanic substrate. 120-975 m.	No habitat for this species. <b>Species is not present.</b>
Comarostaphylis diversifolia ssp. diversifolia	summer holly	None	None	1B.2	BLM_S-Sensitive   SB_CRES-San Diego Zoo CRES Native Gene Seed Bank   SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, cismontane woodland.	Often in mixed chaparral in California, sometimes post-burn. 30-855 m.	No habitat for this species. <b>Species is not present.</b>
Cryptantha wigginsii	Wiggins' cryptantha	None	None	1B.2		Coastal scrub.	Often on clay soils. 45-110 m.	No habitat for this species. <b>Species is not present.</b>
Dodecema leptoceras	slender-horned spine-flower	Endangered	Endangered	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub).	Flood deposited terraces and washes; associates include Encelia, Dalea, Lepidospartum, etc. Sandy soils. 200-765 m.	No habitat for this species. <b>Species is not present.</b>
Dudleya multicaulis	many-stemmed dudleya	None	None	1B.2	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden   USFS_S-Sensitive	Chaparral, coastal scrub, valley and foothill grassland.	In heavy, often clayey soils or grassy slopes. 1-910 m.	No habitat for this species. <b>Species is not present.</b>

Dudleya viscidula	sticky dudleya	None	None	1B.2	USFS_S-Sensitive	Coastal scrub, coastal bluff scrub, chaparral, cismontane woodland.	On north and south-facing cliffs and banks. 20-870 m.	No habitat for this species. <b>Species is not present.</b>
Eryngium aristulatum var. parishii	San Diego button-celery	Endangered	Endangered	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Vernal pools, coastal scrub, valley and foothill grassland.	San Diego mesa hardpan & claypan vernal pools & southern interior basalt flow vernal pools; usually surrounded by scrub. 15-880 m.	No habitat for this species. <b>Species is not present.</b>
Geothallus tuberosus	Campbell's liverwort	None	None	1B.1		Coastal scrub, vernal pools.	Liverwort known from mesic soil. 10-600 m.	No habitat for this species. <b>Species is not present.</b>
Harpagonella palmeri	Palmer's grapplinghook	None	None	4.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, coastal scrub, valley and foothill grassland.	Clay soils; open grassy areas within shrubland. 20-955 m.	No habitat for this species. <b>Species is not present.</b>
Hesperocyparis forbesii	Tecate cypress	None	None	1B.1	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden   SB_USDA-US Dept of Agriculture   USFS_S-Sensitive	Closed-cone coniferous forest, chaparral.	Primarily on north-facing slopes; groves often associated with chaparral. On clay or gabbro. 60-1650 m.	No habitat for this species. <b>Species is not present.</b>
Horkelia cuneata var. puberula	mesa horkelia	None	None	1B.1	USFS_S-Sensitive	Chaparral, cismontane woodland, coastal scrub.	Sandy or gravelly sites. 15-1645 m.	No habitat for this species. <b>Species is not present.</b>

Horkelia truncata	Ramona horkelia	None	None	1B.3	SB_RSABG-Rancho Santa Ana Botanic Garden   USFS_S-Sensitive	Chaparral, cismontane woodland.	Habitats in California include: mixed chaparral, vernal streams, and disturbed areas near roads. Clay soil; at least sometimes on gabbro. 380-1190 m.	No habitat for this species. <b>Species is not present.</b>
Juncus luciensis	Santa Lucia dwarf rush	None	None	1B.2	USFS_S-Sensitive	Vernal pools, meadows and seeps, lower montane coniferous forest, chaparral, Great Basin scrub.	Vernal pools, ephemeral drainages, wet meadow habitats and stream-sides. 280-2035 m.	No habitat for this species. <b>Species is not present.</b>
Lasthenia glabrata ssp. coulteri	Coulter's goldfields	None	None	1B.1	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden	Coastal salt marshes, playas, vernal pools.	Usually found on alkaline soils in playas, sinks, and grasslands. 1-1375 m.	No habitat for this species. <b>Species is not present.</b>
Lepechinia cardiophylla	heart-leaved pitcher sage	None	None	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden   USFS_S-Sensitive	Closed-cone coniferous forest, chaparral, cismontane woodland.	115-1345 m.	No habitat for this species. <b>Species is not present.</b>
Lepidium virginicum var. robinsonii	Robinson's peppergrass	None	None	4.3		Chaparral, coastal scrub.	Dry soils, shrubland. 4-1435 m.	No habitat for this species. <b>Species is not present.</b>
Lilium parryi	lemon lily	None	None	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden   USFS_S-Sensitive	Lower montane coniferous forest, meadows and seeps, riparian forest, upper montane coniferous forest.	Wet, mountainous terrain; generally in forested areas; on shady edges of streams, in open boggy meadows & seeps. 625-2930 m.	No habitat for this species. <b>Species is not present.</b>



<i>Limnanthes alba</i> ssp. <i>parishii</i>	Parish's meadow-foam	None	Endangered	1B.2	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden   SB_USDA-US Dept of Agriculture   USFS_S-Sensitive	Lower montane coniferous forest, meadows and seeps, vernal pools.	Vernally moist areas and temporary seeps of highland meadows and plateaus; often bordering lakes and streams. 605-1805 m.	No habitat for this species. <b>Species is not present.</b>
<i>Mielichhoferia shevockii</i>	Shevock's copper moss	None	None	1B.2		Cismontane woodland.	Moss on metamorphic rocks containing heavy metals; mesic sites. On rocks along roads, in same habitat as <i>Mielichhoferia elongata</i> . 750-1400 m.	No habitat for this species. <b>Species is not present.</b>
<i>Monardella hypoleuca</i> ssp. <i>intermedia</i>	intermediate monardella	None	None	1B.3		Chaparral, cismontane woodland, lower montane coniferous forest (sometimes).	Often in steep, brushy areas. 195-1675 m.	No habitat for this species. <b>Species is not present.</b>
<i>Monardella macrantha</i> ssp. <i>hallii</i>	Hall's monardella	None	None	1B.3	SB_RSABG-Rancho Santa Ana Botanic Garden   USFS_S-Sensitive	Broadleafed upland forest, chaparral, lower montane coniferous forest, cismontane woodland, valley and foothill grassland.	Dry slopes and ridges in openings. 700-1800 m.	No habitat for this species. <b>Species is not present.</b>
<i>Myosurus minimus</i> ssp. <i>apus</i>	little mousetail	None	None	3.1		Vernal pools, valley and foothill grassland.	Alkaline soils. 20-640 m.	No habitat for this species. <b>Species is not present.</b>

Navarretia fossalis	spreading navarretia	Threatened	None	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Vernal pools, chenopod scrub, marshes and swamps, playas.	San Diego hardpan and San Diego claypan vernal pools; in swales & vernal pools, often surrounded by other habitat types. 15-850 m.	No habitat for this species. <b>Species is not present.</b>
Navarretia prostrata	prostrate vernal pool navarretia	None	None	1B.1		Coastal scrub, valley and foothill grassland, vernal pools, meadows and seeps.	Alkaline soils in grassland, or in vernal pools. Mesic, alkaline sites. 3-1235 m.	No habitat for this species. <b>Species is not present.</b>
Nolina cismontana	chaparral nolina	None	None	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden   SB_SBBG-Santa Barbara Botanic Garden   USFS_S-Sensitive	Chaparral, coastal scrub.	Primarily on sandstone and shale substrates; also known from gabbro. 140-1100 m.	No habitat for this species. <b>Species is not present.</b>
Orcuttia californica	California Orcutt grass	Endangered	Endangered	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Vernal pools.	10-660 m.	No habitat for this species. <b>Species is not present.</b>
Packera ganderi	Gander's ragwort	None	Rare	1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Chaparral.	Recently burned sites and gabbro outcrops. 485-1070 m.	No habitat for this species. <b>Species is not present.</b>
Pseudognaphalium leucocephalum	white rabbit-tobacco	None	None	2B.2		Riparian woodland, cismontane woodland, coastal scrub, chaparral.	Sandy, gravelly sites. 35-515 m.	No habitat for this species. <b>Species is not present.</b>
Saltugilia latimeri	Latimer's woodland-gilia	None	None	1B.2	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden   SB_USDA-US Dept of Agriculture   USFS_S-Sensitive	Chaparral, Mojavean desert scrub, pinyon and juniper woodland.	Rocky or sandy substrate; sometimes in washes, sometimes limestone. 120-2200 m.	No habitat for this species. <b>Species is not present.</b>

Scutellaria bolanderi ssp. austromontana	southern mountains skullcap	None	None	1B.2	USFS_S-Sensitive	Chaparral, cismontane woodland, lower montane coniferous forest.	In gravelly soils on streambanks or in mesic sites in oak or pine woodland. 425-2000 m.	No habitat for this species. <b>Species is not present.</b>
Senecio aphanactis	chaparral ragwort	None	None	2B.2		Chaparral, cismontane woodland, coastal scrub.	Drying alkaline flats. 20-855 m.	No habitat for this species. <b>Species is not present.</b>
Sibaropsis hammittii	Hammitt's clay-cress	None	None	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden   USFS_S-Sensitive	Valley and foothill grassland, chaparral.	Mesic microsites in open areas on clay soils in Stipa grassland. Often surrounded by Adenostoma chaparral. 715-1040 m.	No habitat for this species. <b>Species is not present.</b>
Sidalcea neomexicana	salt spring checkerbloom	None	None	2B.2	USFS_S-Sensitive	Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub.	Alkali springs and marshes. 3-2380 m.	No habitat for this species. <b>Species is not present.</b>
Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	None	None					<b>Not present.</b>
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	None	None					<b>Present</b>
Southern Interior Basalt Flow Vernal Pool	Southern Interior Basalt Flow Vernal Pool	None	None					<b>Not present.</b>
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	None	None					<b>Not present.</b>

Southern Willow Scrub	Southern Willow Scrub	None	None					<b>Present</b>
Sphaerocarpos drewei	bottle liverwort	None	None	1B.1		Chaparral, coastal scrub.	Liverwort in openings; on soil. 90-600 m.	No habitat for this species. <b>Species is not present.</b>
Symphyotrichum defoliatum	San Bernardino aster	None	None	1B.2	BLM_S-Sensitive   USFS_S-Sensitive	Meadows and seeps, cismontane woodland, coastal scrub, lower montane coniferous forest, marshes and swamps, valley and foothill grassland.	Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 3-2045 m.	No habitat for this species. <b>Species is not present.</b>
Tetracoccus dioicus	Parry's tetracoccus	None	None	1B.2	BLM_S-Sensitive   SB_RSABG-Rancho Santa Ana Botanic Garden   USFS_S-Sensitive	Chaparral, coastal scrub.	Stony, decomposed gabbro soil. 135-705 m.	No habitat for this species. <b>Species is not present.</b>
Texosporium sancti-jacobi	woven-spored lichen	None	None	3		Chaparral.	Open sites; in California with Adenostoma fasciculatum, Eriogonum, Selaginella. At Pinnacles, on small mammal pellets. 290-660 m.	No habitat for this species. <b>Species is not present.</b>
Tortula californica	California screw moss	None	None	1B.2	BLM_S-Sensitive	Chenopod scrub, valley and foothill grassland.	Moss growing on sandy soil. 10-1460 m.	No habitat for this species. <b>Species is not present.</b>
Valley Needlegrass Grassland	Valley Needlegrass Grassland	None	None					<b>Not present.</b>



SciName	ComName	FedList	CalList	OthrStatus	Habitats	GenHab	MicroHab	Presence/Absence
Accipiter cooperii	Cooper's hawk	None	None	CDFW_WL-Watch List   IUCN_LC-Least Concern	Cismontane woodland   Riparian forest   Riparian woodland   Upper montane coniferous forest	Woodland, chiefly of open, interrupted or marginal type.	Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	Potential nesting and foraging habitat for this species present. <b>Potential to be present.</b>
Agelaius tricolor	tricolored blackbird	None	Threatened	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_EN-Endangered   NABCI_RWL-Red Watch List   USFWS_BCC-Birds of Conservation Concern	Freshwater marsh   Marsh & swamp   Swamp   Wetland	Highly colonial species, most numerous in Central Valley & vicinity. Largely endemic to California.	Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	No habitat for this species present. <b>Not present.</b>
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	None	None	CDFW_WL-Watch List	Chaparral   Coastal scrub	Resident in Southern California coastal sage scrub and sparse mixed chaparral.	Frequents relatively steep, often rocky hillsides with grass and forb patches.	No habitat for this species present. <b>Not present.</b>
Anaxyrus californicus	arroyo toad	Endangered	None	CDFW_SSC-Species of Special Concern   IUCN_EN-Endangered	Desert wash   Riparian scrub   Riparian woodland   South coast flowing waters   South coast standing waters	Semi-arid regions near washes or intermittent streams, including valley-foothill and desert riparian, desert wash, etc.	Rivers with sandy banks, willows, cottonwoods, and sycamores; loose, gravelly areas of streams in drier parts of range.	The riparian area on property does not have the sandy banks and hydrology needed to support arroyo toad. <b>Not present.</b>



Anniella stebbinsi	southern Cali- fornia legless lizard	None	None	CDFW_SSC- Species of Special Con- cern   USFS_S- Sensitive	Broadleaved upland forest   Chaparral   Coastal dunes   Coastal scrub	Generally south of the Trans- verse Range, extending to northwestern Baja California. Occurs in sandy or loose loamy soils under sparse vegeta- tion. Disjunct populations in the Tehachapi and Piute Mountains in Kern County.	Variety of habi- tats; generally in moist, loose soil. They prefer soils with a high moisture con- tent.	No habitat for this species present. <b>Not present.</b>
Antrozous pallidus	pallid bat	None	None	BLM_S-Sensi- tive   CDFW_SSC- Species of Special Con- cern   IUCN_LC-Least Concern   USFS_S-Sensi- tive   WBWG_H- High Priority	Chaparral   Coastal scrub   Desert wash   Great Basin grassland   Great Basin scrub   Mo- javean desert scrub   Ripar- ian woodland   Sonoran desert scrub   Upper montane coniferous for- est   Valley & foothill grass- land	Deserts, grass- lands, shrub- lands, wood- lands and forests. Most common in open, dry habi- tats with rocky areas for roost- ing.	Roosts must protect bats from high tem- peratures. Very sensitive to dis- turbance of roosting sites.	No habitat for this species present. <b>Not present.</b>

Aquila chrysaetos	golden eagle	None	None	BLM_S-Sensitive   CDF_S-Sensitive   CDFW_FP-Fully Protected   CDFW_WL-Watch List   IUCN_LC-Least Concern   US-FWS_BCC-Birds of Conservation Concern	Broadleaved upland forest   Cismontane woodland   Coastal prairie   Great Basin grassland   Great Basin scrub   Lower montane coniferous forest   Pinon & juniper woodlands   Upper montane coniferous forest   Valley & foothill grassland	Rolling foothills, mountain areas, sage-juniper flats, and desert.	Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	No habitat for this species present. <b>Not present.</b>
Arizona elegans occidentalis	California glossy snake	None	None	CDFW_SSC-Species of Special Concern		Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja California.	Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	Habitat may be present for this species. <b>Potential to be present.</b>
Artemisiospiza belli belli	Bell's sage sparrow	None	None	CDFW_WL-Watch List   USFWS_BCC-Birds of Conservation Concern	Chaparral   Coastal scrub	Nests in chaparral dominated by fairly dense stands of chamise. Found in coastal sage scrub in south of range.	Nest located on the ground beneath a shrub or in a shrub 6-18 inches above ground. Territories about 50 yds apart.	No habitat for this species present. <b>Not present.</b>

Aspidoscelis hyperythra	orange-throated whip-tail	None	None	CDFW_WL-Watch List   IUCN_LC-Least Concern   USFS_S-Sensitive	Chaparral   Cismontane woodland   Coastal scrub	Inhabits low-elevation coastal scrub, chaparral, and valley-foothill hardwood habitats.	Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food: termites.	Habitat may be present for this species. <b>Potential to be present.</b>
Aspidoscelis tigris stejnegeri	coastal whip-tail	None	None	CDFW_SSC-Species of Special Concern		Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas.	Ground may be firm soil, sandy, or rocky.	Habitat may be present for this species. <b>Potential to be present.</b>
Athene cucularia	burrowing owl	None	None	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   USFWS_BCC-Birds of Conservation Concern	Coastal prairie   Coastal scrub   Great Basin grassland   Great Basin scrub   Mojavean desert scrub   Sonoran desert scrub   Valley & foothill grassland	Open, dry annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation.	Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	Protocol surveys were negative for burrowing owl. <b>Not present.</b>
Bombus crotchii	Crotch bumble bee	None	None			Coastal California east to the Sierra-Cascade crest and south into Mexico.	Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	No habitat for this species present. <b>Not present.</b>

Branchinecta lynchii	vernal pool fairy shrimp	Threatened	None	IUCN_VU-Vulnerable	Valley & foothill grassland   Vernal pool   Wetland	Endemic to the grasslands of the Central Valley, Central Coast mountains, and South Coast mountains, in arid rain-filled pools.	Inhabit small, clear-water sandstone-depression pools and grassed swale, earth slump, or basalt-flow depression pools.	No habitat for this species present. <b>Not present.</b>
Branchinecta sandiegoensis	San Diego fairy shrimp	Endangered	None	IUCN_EN-Endangered	Chaparral   Coastal scrub   Vernal pool   Wetland	Endemic to San Diego and Orange County mesas.	Vernal pools.	No habitat for this species present. <b>Not present.</b>
Buteo regalis	ferruginous hawk	None	None	CDFW_WL-Watch List   IUCN_LC-Least Concern   USFWS_BCC-Birds of Conservation Concern	Great Basin grassland   Great Basin scrub   Pinon & juniper woodlands   Valley & foothill grassland	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats.	Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	No habitat for this species present. <b>Not present.</b>
Buteo swainsoni	Swainson's hawk	None	Threatened	BLM_S-Sensitive   IUCN_LC-Least Concern   USFWS_BCC-Birds of Conservation Concern	Great Basin grassland   Riparian forest   Riparian woodland   Valley & foothill grassland	Breeds in grasslands with scattered trees, juniper-sage flats, riparian areas, savannas, & agricultural or ranchlands with groves or lines of trees.	Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	No habitat for this species present. <b>Not present.</b>
Campylorhynchus brunneicapillus sandiegensis	coastal cactus wren	None	None	CDFW_SSC-Species of Special Concern   USFS_S-Sensitive   USFWS_BCC-Birds of Conservation Concern	Coastal scrub	Southern California coastal sage scrub.	Wrens require tall opuntia cactus for nesting and roosting.	No habitat for this species present. <b>Not present.</b>



Chaetodipus californicus femoralis	Dulzura pocket mouse	None	None	CDFW_SSC-Species of Special Concern	Chaparral   Coastal scrub   Valley & foothill grassland	Variety of habitats including coastal scrub, chaparral & grassland in San Diego County.	Attracted to grass-chaparral edges.	Small mammal surveys were negative for this species. <b>Not present.</b>
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None	None	CDFW_SSC-Species of Special Concern	Chaparral   Coastal scrub	Coastal scrub, chaparral, grasslands, sagebrush, etc. in western San Diego County.	Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	Small mammal surveys were negative for this species. <b>Not present.</b>
Charadrius alexandrinus nivosus	western snowy plover	Threatened	None	CDFW_SSC-Species of Special Concern   NABCI_RWL-Red Watch List   USFWS_BCC-Birds of Conservation Concern	Great Basin standing waters   Sand shore   Wetland	Sandy beaches, salt pond levees & shores of large alkali lakes.	Needs sandy, gravelly or friable soils for nesting.	No habitat for this species present. <b>Not present.</b>
Cicindela senilis frosti	senile tiger beetle	None	None		Mud shore/flats   Wetland	Inhabits marine shoreline, from Central California coast south to salt marshes of San Diego. Also found at Lake Elsinore	Inhabits dark-colored mud in the lower zone and dried salt pans in the upper zone.	No habitat for this species present. <b>Not present.</b>
Circus hudsonius	northern harrier	None	None	CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern	Coastal scrub   Great Basin grassland   Marsh & swamp   Riparian scrub   Valley & foothill grassland   Wetland	Coastal salt & freshwater marsh. Nest and forage in grasslands, from salt grass in desert sink to mountain cienagas.	Nests on ground in shrubby vegetation, usually at marsh edge; nest built of a large mound of sticks in wet areas.	No habitat for this species present. <b>Not present.</b>



Coccyzus americanus occidentalis	western yellow-billed cuckoo	Threatened	Endangered	BLM_S-Sensitive   NABCI_RWL-Red Watch List   USFS_S-Sensitive   USFWS_BCC-Birds of Conservation Concern	Riparian forest	Riparian forest nester, along the broad, lower flood-bottoms of larger river systems.	Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, net-tles, or wild grape.	No habitat for this species present. <b>Not present.</b>
Coleonyx variegatus abbotti	San Diego banded gecko	None	None	CDFW_SSC-Species of Special Concern	Chaparral   Coastal scrub	Coastal & cis-montane Southern California.	Found in granite or rocky outcrops in coastal scrub and chaparral habitats.	No habitat for this species present. <b>Not present.</b>
Crotalus ruber	red-diamond rattlesnake	None	None	CDFW_SSC-Species of Special Concern   USFS_S-Sensitive	Chaparral   Mojavean desert scrub   Sonoran desert scrub	Chaparral, woodland, grassland, & desert areas from coastal San Diego County to the eastern slopes of the mountains.	Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	No habitat for this species present. <b>Not present.</b>
Diadophis punctatus modestus	San Bernardino ringneck snake	None	None	USFS_S-Sensitive		Most common in open, relatively rocky areas. Often in somewhat moist micro-habitats near intermittent streams.	Avoids moving through open or barren areas by restricting movements to areas of surface litter or herbaceous veg.	No habitat for this species present. <b>Not present.</b>
Diadophis punctatus similis	San Diego ringneck snake	None	None	USFS_S-Sensitive		Open, fairly rocky areas. Use boards, flat rocks, wood-piles, stable talus, rotting logs & small ground holes for cover.	Prefer areas with surface litter or herbaceous vegetation. Often in somewhat moist areas near intermittent streams.	No habitat for this species present. <b>Not present.</b>

Dipodomys merriami parvus	San Bernardino kangaroo rat	Endangered	None	CDFW_SSC-Species of Special Concern	Coastal scrub	Alluvial scrub vegetation on sandy loam substrates characteristic of alluvial fans and flood plains.	Needs early to intermediate seral stages.	Small mammal surveys were negative for this species. <b>Not present.</b>
Dipodomys stephensi	Stephens' kangaroo rat	Endangered	Threatened	IUCN_EN-Endangered	Coastal scrub   Valley & foothill grassland	Primarily annual & perennial grasslands, but also occurs in coastal scrub & sagebrush with sparse canopy cover.	Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	Small mammal surveys were negative for this species. <b>Not present.</b>
Elanus leucurus	white-tailed kite	None	None	BLM_S-Sensitive   CDFW_FP-Fully Protected   IUCN_LC-Least Concern	Cismontane woodland   Marsh & swamp   Riparian woodland   Valley & foothill grassland   Wetland	Rolling foothills and valley margins with scattered oaks & river bottomlands or marshes next to deciduous woodland.	Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	No habitat for this species present. <b>Not present.</b>

Emys marmorata	western pond turtle	None	None	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_VU-Vulnerable   USFS_S-Sensitive	Aquatic   Artificial flowing waters   Klamath/North coast flowing waters   Klamath/North coast standing waters   Marsh & swamp   Sacramento/San Joaquin flowing waters   Sacramento/San Joaquin standing waters   South coast flowing waters   South coast standing waters   Wetland	A thoroughly aquatic turtle of ponds, marshes, rivers, streams and irrigation ditches, usually with aquatic vegetation, below 6000 ft elevation.	Needs basking sites and suitable (sandy banks or grassy open fields) upland habitat up to 0.5 km from water for egg-laying.	No habitat for this species present. <b>Not present.</b>
Eremophila alpestris actia	California horned lark	None	None	CDFW_WL-Watch List   IUCN_LC-Least Concern	Marine intertidal & splash zone communities   Meadow & seep	Coastal regions, chiefly from Sonoma County to San Diego County. Also main part of San Joaquin Valley and east to foothills.	Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	No habitat for this species present. <b>Not present.</b>
Eumops perotis californicus	western mastiff bat	None	None	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   WBWG_H-High Priority	Chaparral   Cismontane woodland   Coastal scrub   Valley & foothill grassland	Many open, semi-arid to arid habitats, including conifer & deciduous woodlands, coastal scrub, grasslands, chaparral, etc.	Roosts in crevices in cliff faces, high buildings, trees and tunnels.	No habitat for this species present. <b>Not present.</b>

Euphydryas editha quino	quino checkerspot butterfly	Endangered	None	XERCES_CI-Critically Imperiled	Chaparral   Coastal scrub	Sunny openings within chaparral & coastal sage shrublands in parts of Riverside & San Diego counties.	Hills and mesas near the coast. Need high densities of food plants <i>Plantago erecta</i> , <i>P. insularis</i> , and <i>Orthocarpus purpureus</i> .	No habitat for this species present. <b>Not present.</b>
Gila orcuttii	arroyo chub	None	None	AFS_VU-Vulnerable   CDFW_SSC-Species of Special Concern   USFS_S-Sensitive	Aquatic   South coast flowing waters	Native to streams from Malibu Creek to San Luis Rey River basin. Introduced into streams in Santa Clara, Ventura, Santa Ynez, Mojave & San Diego river basins.	Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	No habitat for this species present. <b>Not present.</b>
Haliaeetus leucocephalus	bald eagle	Delisted	Endangered	BLM_S-Sensitive   CDF_S-Sensitive   CDFW_FP-Fully Protected   IUCN_LC-Least Concern   USFS_S-Sensitive   USFWS_BCC-Birds of Conservation Concern	Lower montane coniferous forest   Oldgrowth	Ocean shore, lake margins, and rivers for both nesting and wintering. Most nests within 1 mile of water.	Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	No habitat for this species present. <b>Not present.</b>
Icteria virens	yellow-breasted chat	None	None	CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern	Riparian forest   Riparian scrub   Riparian woodland	Summer resident; inhabits riparian thickets of willow and other brushy tangles near watercourses.	Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	No habitat for this species present. <b>Not present.</b>



Lanius ludovicianus	loggerhead shrike	None	None	CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   US-FWS_BCC-Birds of Conservation Concern	Broadleaved upland forest   Desert wash   Joshua tree woodland   Mojavean desert scrub   Pinon & juniper woodlands   Riparian woodland   Sonoran desert scrub	Broken woodlands, savannah, pinyon-juniper, Joshua tree, and riparian woodlands, desert oases, scrub & washes.	Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	No habitat for this species present. <b>Not present.</b>
Lasiurus xanthinus	western yellow bat	None	None	CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   WBWG_H-High Priority	Desert wash	Found in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats.	Roosts in trees, particularly palms. Forages over water and among trees.	No habitat for this species present. <b>Not present.</b>
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None	None	CDFW_SSC-Species of Special Concern	Coastal scrub	Intermediate canopy stages of shrub habitats & open shrub / herbaceous & tree / herbaceous edges.	Coastal sage scrub habitats in Southern California.	Habitat may be present for this species. <b>Potential to be present.</b>
Linderiella santarosae	Santa Rosa Plateau fairy shrimp	None	None		Vernal pool	Found only in the vernal pools on Santa Rosa Plateau in Riverside County.	Southern basalt flow vernal pools.	No habitat for this species present. <b>Not present.</b>
Myotis yumanensis	Yuma myotis	None	None	BLM_S-Sensitive   IUCN_LC-Least Concern   WBWG_LM-Low-Medium Priority	Lower montane coniferous forest   Riparian forest   Riparian woodland   Upper montane coniferous forest	Optimal habitats are open forests and woodlands with sources of water over which to feed.	Distribution is closely tied to bodies of water. Maternity colonies in caves, mines, buildings or crevices.	No habitat for this species present. <b>Not present.</b>



Neotoma lepida intermedia	San Diego desert woodrat	None	None	CDFW_SSC-Species of Special Concern	Coastal scrub	Coastal scrub of Southern California from San Diego County to San Luis Obispo County.	Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	Small mammal surveys were negative for this species. <b>Not present.</b>
Nycticorax nycticorax	black-crowned night heron	None	None	IUCN_LC-Least Concern	Marsh & swamp   Riparian forest   Riparian woodland   Wetland	Colonial nester, usually in trees, occasionally in tule patches.	Rookery sites located adjacent to foraging areas: lake margins, mud-bordered bays, marshy spots.	No habitat for this species present. <b>Not present.</b>
Nyctinomops femorosaccus	pocketed free-tailed bat	None	None	CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   WBWG_M-Medium Priority	Joshua tree woodland   Pinon & juniper woodlands   Riparian scrub   Sonoran desert scrub	Variety of arid areas in Southern California; pine-juniper woodlands, desert scrub, palm oasis, desert wash, desert riparian, etc.	Rocky areas with high cliffs.	No habitat for this species present. <b>Not present.</b>
Onychomys torridus ramona	southern grasshopper mouse	None	None	CDFW_SSC-Species of Special Concern	Chenopod scrub	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	Small mammal surveys were negative for this species. <b>Not present.</b>
Perognathus longimembris brevinaus	Los Angeles pocket mouse	None	None	CDFW_SSC-Species of Special Concern	Coastal scrub	Lower elevation grasslands and coastal sage communities in and around the Los Angeles Basin.	Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	Small mammal surveys were negative for this species. <b>Not present.</b>

<i>Perognathus longimembris internationalis</i>	Jacumba pocket mouse	None	None	CDFW_SSC-Species of Special Concern	Coastal scrub   Desert wash   Sonoran desert scrub	Desert riparian, desert scrub, desert wash, coastal scrub and sagebrush.	Rarely found on rocky sites; uses all canopy coverages.	Small mammal surveys were negative for this species. <b>Not present.</b>
<i>Phrynosoma blainvillii</i>	coast horned lizard	None	None	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern	Chaparral   Cismontane woodland   Coastal bluff scrub   Coastal scrub   Desert wash   Pinon & juniper woodlands   Riparian scrub   Riparian woodland   Valley & foothill grassland	Frequents a wide variety of habitats, most common in lowlands along sandy washes with scattered low bushes.	Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	Potential nesting and foraging habitat for this species present. <b>Potential to be present.</b>
<i>Plegadis chihi</i>	white-faced ibis	None	None	CDFW_WL-Watch List   IUCN_LC-Least Concern	Marsh & swamp   Wetland	Shallow freshwater marsh.	Dense tule thickets for nesting, interspersed with areas of shallow water for foraging.	No habitat for this species present. <b>Not present.</b>
<i>Plestiodon skiltonianus interparietalis</i>	Coronado skink	None	None	BLM_S-Sensitive   CDFW_WL-Watch List	Chaparral   Cismontane woodland   Pinon & juniper woodlands	Grassland, chaparral, pinon-juniper and juniper sage woodland, pine-oak and pine forests in Coast Ranges of Southern California.	Prefers early successional stages or open areas. Found in rocky areas close to streams and on dry hillsides.	No habitat for this species present. <b>Not present.</b>
<i>Poliophtila californica californica</i>	coastal California gnat-catcher	Threatened	None	CDFW_SSC-Species of Special Concern   NABCI_YWL-Yellow Watch List	Coastal bluff scrub   Coastal scrub	Obligate, permanent resident of coastal sage scrub below 2500 ft in Southern California.	Low, coastal sage scrub in arid washes, on mesas and slopes. Not all areas classified as coastal sage scrub are occupied.	No habitat for this species present. <b>Not present.</b>

Rana draytonii	California red-legged frog	Threatened	None	CDFW_SSC-Species of Special Concern   IUCN_VU-Vulnerable	Aquatic   Artificial flowing waters   Artificial standing waters   Freshwater marsh   Marsh & swamp   Riparian forest   Riparian scrub   Riparian woodland   Sacramento/ San Joaquin flowing waters   Sacramento/ San Joaquin standing waters   South coast flowing waters   South coast standing waters   Wetland	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation.	Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	No habitat for this species present. <b>Not present.</b>
Salvadora hexalepis virgulata	coast patch-nosed snake	None	None	CDFW_SSC-Species of Special Concern	Coastal scrub	Brushy or shrubby vegetation in coastal Southern California.	Require small mammal burrows for refuge and overwintering sites.	No habitat for this species present. <b>Not present.</b>
So-calchemmis icenoglei	icenogle's so-calchemmis spider	None	None		Coastal scrub	Known only from the type locality in the vicinity of Winchester, Riverside County.		No habitat for this species present. <b>Not present.</b>
Spea hammondi	western spade-foot	None	None	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_NT-Near Threatened	Cismontane woodland   Coastal scrub   Valley & foothill grassland   Vernal pool   Wetland	Occurs primarily in grassland habitats, but can be found in valley-foothill hardwood woodlands.	Vernal pools are essential for breeding and egg-laying.	No habitat for this species present. <b>Not present.</b>

Streptocephalus woottoni	Riverside fairy shrimp	Endangered	None	IUCN_EN-Endangered	Coastal scrub   Valley & foothill grassland   Vernal pool   Wetland	Endemic to Western Riverside, Orange, and San Diego counties in areas of tectonic swales/earth slump basins in grassland and coastal sage scrub.	Inhabit seasonally astatic pools filled by winter/spring rains. Hatch in warm water later in the season.	No habitat for this species present. <b>Not present.</b>
Taricha torosa	Coast Range newt	None	None	CDFW_SSC-Species of Special Concern		Coastal drainages from Mendocino County to San Diego County.	Lives in terrestrial habitats & will migrate over 1 km to breed in ponds, reservoirs & slow moving streams.	No habitat for this species present. <b>Not present.</b>
Thamnophis hammondi	two-striped gartersnake	None	None	BLM_S-Sensitive   CDFW_SSC-Species of Special Concern   IUCN_LC-Least Concern   USFS_S-Sensitive	Marsh & swamp   Riparian scrub   Riparian woodland   Wetland	Coastal California from vicinity of Salinas to northwest Baja California. From sea to about 7,000 ft elevation.	Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	No habitat for this species present. <b>Not present.</b>
Vireo bellii pusillus	least Bell's vireo	Endangered	Endangered	IUCN_NT-Near Threatened   NABCI_YWL-Yellow Watch List	Riparian forest   Riparian scrub   Riparian woodland	Summer resident of Southern California in low riparian in vicinity of water or in dry river bottoms; below 2000 ft.	Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	Habitat may be present for this species. <b>Potential to be present.</b>



**APN 910-230-003**

Biological Studies

City of Murrieta, Riverside County, California



Ruderal habitat located on property. This photo was taken from the center of property facing east.



Disturbed coastal sage scrub found in small areas of the property.



**APN 910-230-003**

Biological Studies

City of Murrieta, Riverside County, California



Fremont cottonwood forest located in Warm Springs Creek on the southern portion of the property.



Red willow located in Warm Springs Creek.

**APN 910-230-003**

Biological Studies

City of Murrieta, Riverside County, California



Mulefat associated with Warm Springs Creek.



Ruderal habitat located on the north-end of the property facing south.



**Presence/Absence Trapping Studies  
For the Los Angeles Pocket Mouse  
W.M. Lyles Property  
Murrieta, Riverside County, California  
APN Number 910-230-003**



Total Project Acreage and Surveyed Area: 5.83 Acres Estimated

***Trapping Surveys Conducted on:*** July 6 to 11, 2019

***Final Report Date:*** August 3, of 2019

### **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.

This report was prepared in accordance with professional requirements and recommended protocols for small mammal trapping studies.

Philippe Vergne      *Philippe Jean Vergne*

August 3 , 2019

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Exhibit 4 – LAPM Capture Locations

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Appendix B - Animal Species Observed  
Appendix C- Site Photographs



## Executive Summary

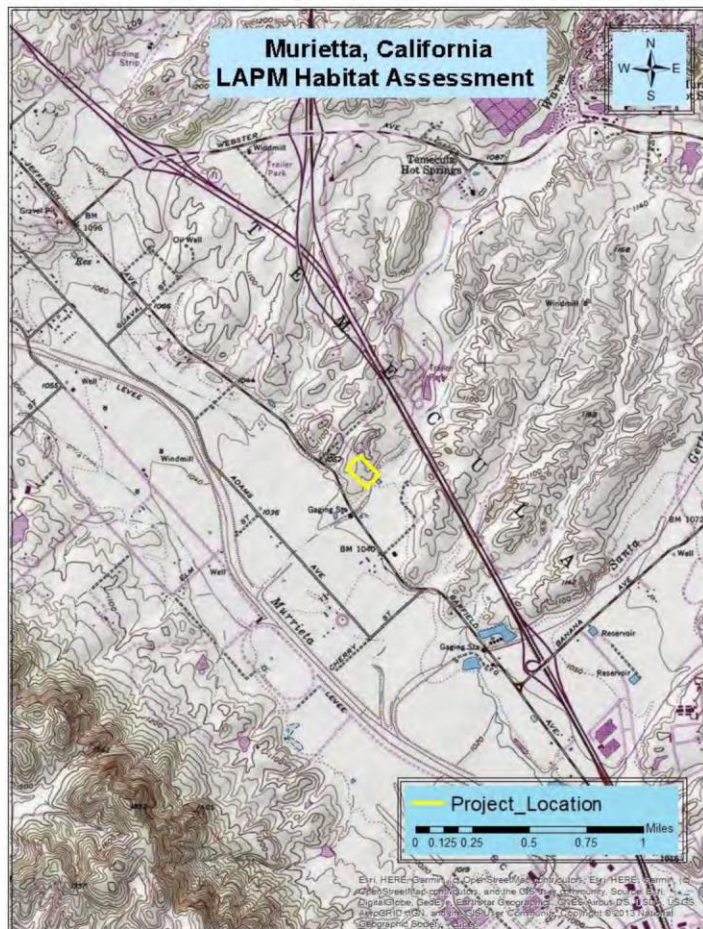
Philippe Vergne conducted the survey for the subject property. He conducted a protocol trapping survey for the Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)- (LAPM) on an estimated 5.8±-acre property located in the Murrieta area of Riverside County, California (Exhibit 1). The assessment was required to confirm the presence or absence of LAPM, and other potential sensitive small mammal species in drainages and upland habitat located on the property.

The Los Angeles Pocket mouse was not captured during the current surveys. The Los Angeles pocket mouse is not present on site.

## Introduction

Philippe Vergne conducted the survey for the subject property. He conducted a protocol trapping survey for the Los Angeles pocket mouse (*Perognathus longimembris brevinasus*)- (LAPM) on an estimated 5.8±-acre property located in the Murrieta area of Riverside County, California (Exhibit 1 Lyles Property Site Vicinity and Project Boundaries). The assessment was required to confirm the presence or absence of LAPM, and other potential sensitive small mammal species in drainages and upland habitat located on the property.

### Exhibit 1. Lyles Property Site Vicinity and Project Boundaries



## **Methods**

### **Research**

We reviewed available information on the known sensitive resources in the area. The literature review included a review of standard field guides and texts on sensitive and non-sensitive biological resources, as well as the following sources:

*Western Riverside County MSHCP*

*Focused Surveys for the Los Angeles pocket Mouse Murrieta Area*

We also reviewed other available technical information on the biological resources in proximity of the site and discussed recent findings with researchers in the field.

### **Habitat Evaluation Surveys**

Field surveys and focused trapping for LAPM were performed by Mr. Philippe Vergne who holds a USFWS 10(a) 1(b) permit to trap and handle Stephens' and San Bernardino Kangaroo rats, Pacific Pocket mouse, and to conduct field studies on sensitive small mammals in Southern California (TE-831207-4); a California Department of Fish and Wildlife (CDFW) Memorandum of Understanding for above mentioned species and the Mohave Ground Squirrel, the LAPM, Palms Springs pocket mouse, Palm Springs round-tailed ground squirrel, white-eared pocket mouse, Jacumba pocket mouse, northwestern San Diego pocket mouse, and Dulzura pocket mouse; and a CDFW Scientific Collector Permit.

Mr. Vergne also conducted a general biological assessment of the plant and wildlife species on site. In addition, he noted site characteristics such as soils, topography, the condition of the plant communities, and evidence of human use of the site.

### **Trapping Surveys**

Trapping was conducted according to protocols established for small mammal species surveys. The protocol calls for five consecutive nights of trapping, conducted when the animal is active above ground at night. One five-day trapping session was deemed necessary to cover the project site. The focused trapping survey was conducted from July 6 to 11 of 2019.

Trapping Lines of 30-45 traps were set at trapping Areas 1 through 5 (Exhibit 2 Lyle Project Trap Lines). Traps were placed in suitable habitat areas on the project, concentrating on locating traps in areas containing sandy soils, small mammal sign and suitable vegetation.



## Exhibit 2. Lyles Property Trap Lines



Each trap was baited with a mixture of bird seed and rolled oats placed at the back of the traps. The traps were left in place, set at dusk each night and inspected once during the night and at dawn each morning. All animals were identified and released at the point of capture.

Notes and photographs were taken on the habitat conditions where the traps were placed. The weather conditions at the time of the trapping studies were also noted.

## **Results**

### **Research**

Several sensitive small mammal species were identified as potentially present in the vicinity of the project. They are the LAPM, the San Diego pocket mouse, and the San Diego desert woodrat.

For the animal species potentially present, including the LAPM, specific survey protocols are required to establish presence or absence. These specific survey protocols are required for areas where impacts may occur to the sensitive species or their occupied habitat. The remaining species are usually identified through casual observation while trapping for targeted species.

### **Potential Sensitive Biological Resources**

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

The LAPM is one of two pocket mice found in this area of San Bernardino County. Both the Los Angeles pocket mouse and the San Diego pocket mouse occupy similar habitats, but the San Diego pocket mouse has a wider range extending south into San Diego County. The habitat of the Los Angeles pocket mouse is described as being confined to lower elevation grasslands and coastal sage scrub habitats, in areas with soils composed of fine sands (Williams, 1986). The present known distribution of this species extends from Rancho Cucamonga east to Morongo and south to the San Diego County border.

The LAPM forages in open ground and underneath shrubs. Pocket mice in general dig burrows in loose soil, although this has not been completely documented for this subspecies.

The LAPM is a CSC. CSC designation of species is based on a series of publications prepared by the California Department of Fish and Game (Now CDFW) on declining species of mammals, birds, fishes, amphibians and reptiles. The documents were intended to focus attention on declining wildlife in California, species that are not currently listed but may merit listing under the California Endangered Species Act (CESA). Some of the species identified in these documents have been subsequently listed, or are provided protection under provisions in CESA. Others have remained on the CSC list, and have not been elevated to a greater status of protection. The reasons are many, including a lack of understanding on the specific numbers of individuals and populations, the habitats occupied by the species, and the threats to those habitats.

The MSHCP outlines four conservation objectives for this species. These objectives include the conservation of at least 2000 acres of suitable LAPM habitat within each of seven Core units for a total 14,000 acres and an additional 10,000 acres of suitable habitat outside of the seven Core areas.

#### **Northwestern San Diego Pocket Mouse**

The northwestern San Diego pocket mouse prefers habitat similar to that preferred by the SBKR. The northwestern San Diego pocket mouse occurs in open, sandy areas in the valleys and foothills of southwestern California. The range of this species extends from Orange County to San Diego County, and includes Riverside and San Bernardino Counties. This mouse is a CSC, whose historic range has been reduced by urban development and agriculture.

#### **San Diego Desert Woodrat**

The San Diego desert woodrat (*Neotoma bryanti* AKA *lepida*) is a relatively wide-ranging species extending along the coast of California from south of San Francisco through to the border with Baja California. This species also occurs in the Central Valley and the deserts of southern California and extends along the desert side of the Sierra Nevada into southeastern Oregon.

The coastal species of desert woodrat, the San Diego desert woodrat, prefers scrub habitats such as coastal sage scrub, chaparral and alluvial fan sage scrub. It is more common in areas with rock piles and coarse sandy to rocky soils throughout coastal southern California. The coastal subspecies is a CSC; its historic range has been impacted by the conversion of scrub habitats into residential, commercial and industrial use.



## Results

### Weather Conditions

Weather conditions did not vary much during the course of the trapping survey. Night temperatures were in the mid-fifties. Morning temperatures were in the high fifties to low sixties, in degrees Fahrenheit. Skies were clear. Table 1 summarizes the daily weather conditions.

**Table 1      Weather Conditions**

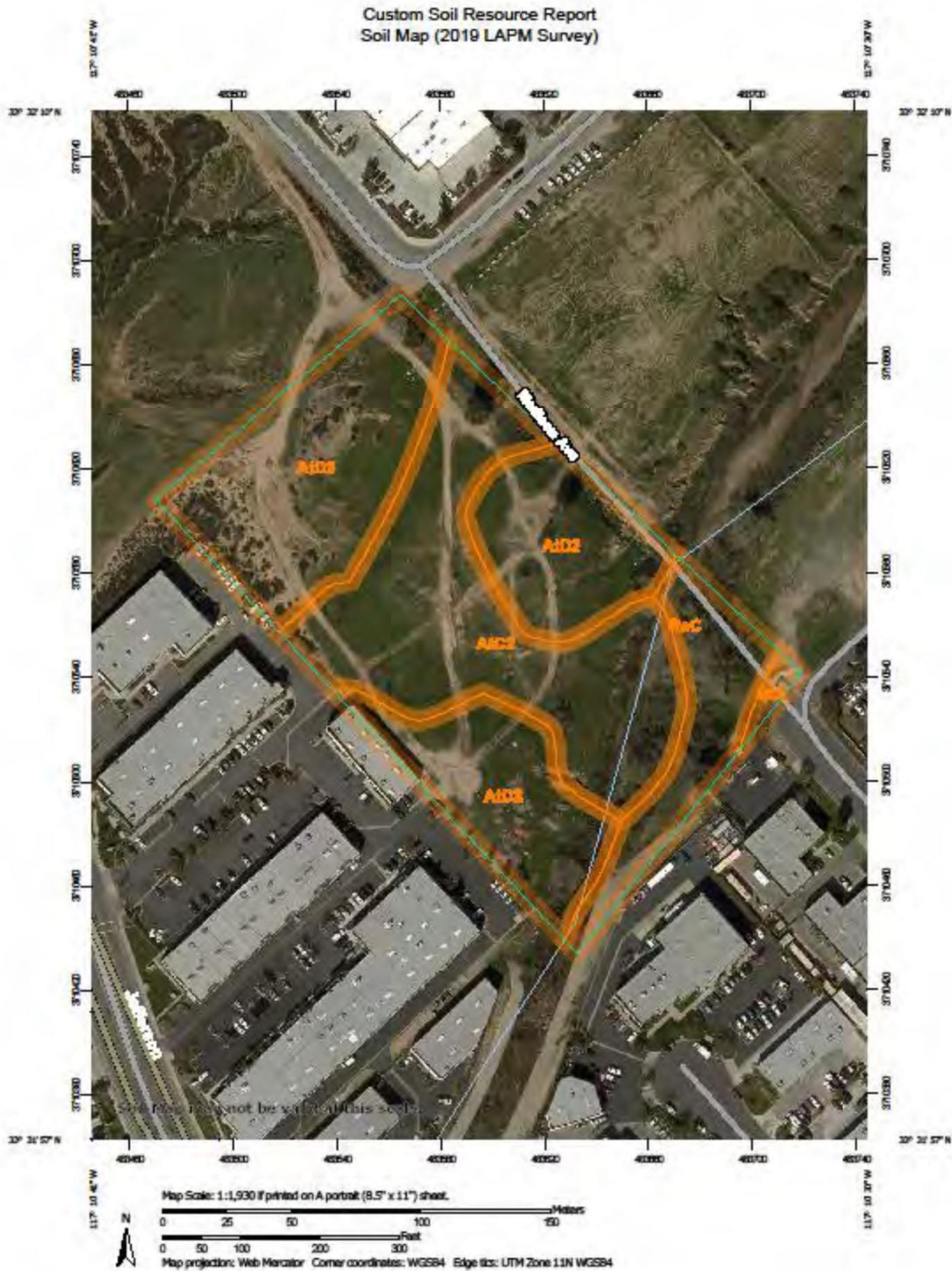
Day	Cloud Cover	Night Low Temperature	Wind (mph)
1	Clear	57	0
2	Clear	55	0
3	Clear	56	0
4	Clear	57	0
5	Clear	59	0
6	Clear	63	0

### Topography and Soils

The topography on the property is mostly flat(graded pads) with steep sides. A drainage occurs along the eastern property boundary. Limited scouring and alluvial processes still occur within this drainage.

Surface soils on site are Arlington and Greenfield fine sandy loams, Grangeville fine sandy loam, and riverwash (Soil Conservation Service 1980) (Exhibit 3. Lyles Property Surface Soils)

### Exhibit 3. Lyles Property Surface Soils



### **Surrounding Land Uses**

Graded pads and open disturbed ruderal fields occur to the north and west, light industrial warehouses and businesses occur to South and East.

### **Plant Communities**

Most of the property has been graded and building pads have been put in place. Vegetation on the pads and graded areas is ruderal with some disturbed annual grasslands components. Dominant species are mustards and nonnative grasses such as Red Brome (*Bromus madritensis* ssp. *rubens*), and forbs.. The steep banks around the pads, especially on the south end are dominated by emergent California Buckwheat (*Eriogonum fasciculatum*). Riparian vegetation and willows occur in the drainage.

A detailed list of plant species observed is provided in Appendix A.

### **Disturbances**

Dirt roads, graded pads, and water/sewer utility easements occur on site.

### **Wildlife**

Wildlife activity was low and mostly confined to the scrub and drainage area.

Bird species were the most commonly seen. Reptiles were observed mainly in the open scrub and dirt roads. No amphibians were observed on the property although suitable habitat occurs within the drainage on site.

Wildlife observations were based on calls, songs, scat, tracks, burrows and direct observation of animals. A list of wildlife species observed is found in Appendix B.

### **Trapping Results**

The Los Angeles pocket mouse was not captured on site. Two species were captured the Deer Mouse (*Peromyscus maniculatus*)-PEMA, and the Western Harvest Mouse (*Reithrodontomys megalotis*)-REME as given in Table 2 Lyles Trapping Results.

**Table 2. Trapping Results Lyles Property**

<b>TRAP</b>	<b>TRAP NIGHT</b>	<b>PEMA</b>	<b>REME</b>
<b>Line 1</b>	150	17	1
<b>Line 2</b>	225	13	
<b>Line 3</b>	150	19	4
<b>Line 4</b>	150	16	2
<b>Line 5</b>	150	12	
<b>TOTAL</b>	<b>825</b>	<b>77</b>	<b>7</b>

**Conclusion**

A total of 2 small mammal species were captured during the trapping surveys.

The Los Angeles Pocket mouse was not captured during the current surveys. The Los Angeles pocket mouse is not present on site.

It should be noted that trapping surveys are valid for a period of one year.



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**Appendix A - Plant Species Observed****ANGIOSPERMAE: DICOTYLEDONES DICOT FLOWERING PLANTS****Anacardiaceae***Toxicodendron diversilobum***Sumac family**

Poison oak

**Asteraceae***Ambrosia psilostachya**Gutierrezia californica**Heterotheca grandiflora**Xanthium strumarium***Sunflower family**

Western ragweed

California matchweed

Telegraph weed

Cocklebur

**Brassicaceae***\*Hirschfeldia incana***Mustard family**

Short-podded mustard

**Cactaceae***Opuntia sp.***Cactus family**

Prickly pear

**Chenopodiaceae***\*Salsola tragus***Saltbush family**

Russian thistle

**Cucurbitaceae***Cucurbita palmata***Gourd family**

Coyote melon

**Euphorbiaceae***Croton californica**Eremocarpus setigerus**\*Ricinus communis***Spurge family**

Croton

Doveweed

Castor bean

**Geraniaceae***\*Erodium cicutarium***Geranium family**

Red-stemmed filaree

**Myrtaceae***\*Eucalyptus sp.***Myrtle family**

Eucalyptus

**Polygonaceae***Eriogonum fasciculatum**Rumex crispus***Buckwheat family**

California buckwheat

Curly dock

**Salicaceae***Salix laevigata**Salix lasiolepis***Willow family**

Red willow

Arroyo willow

**Urticaeae***Urtica dioica***Nettle family**

Stinging nettle

**Poaceae**

*Bromus ciliatus*  
\**Bromus diandrus*  
\**Bromus mollis*  
\**Cynodon dactylon*

**Typhaceae**

*Typha latifolia*

**Grass family**

Fringed brome  
Ripgut brome  
Soft chess  
Bermuda grass

**Cattail family**

Broad-leaved cattail

Taxonomy and nomenclature follow Hickman 1993 and Munz 1974.

*Appendix B – Animal Species Observed*

**FAUNA**

**REPTILIA**

**Iguanidae**

*Uta stansburiana*

**Anguidae**

*Gerrhonotus multicarinatus*

**Colubridae**

*Masticophis flagellum*

*Pituophis melanoleucus*

**AVES**

**Ardeidae**

*Ardea herodias*

**Cathartidae**

*Cathartes aura*

**Accipitridae**

*Buteo lineatus*

**Columbidae**

*Zenaida macroura*

**Tytonidae**

*Tyto alba*

**Corvidae**

*Corvus corax*

**Troglodytidae**

*Troglodytes aedon*

**Fringillidae**

*Carpodacus neomexicanus*

**REPTILES**

**Iguanas and their allies**

Side-blotched lizard

**Alligator lizards**

Southern alligator lizard

**Colubrids**

Coachwhip

Gopher snake

**BIRDS**

**Herons and bitterns**

Great blue heron

**Vultures**

Turkey vulture

**Kites, hawks and eagles**

Red-shouldered hawk

**Pigeons and doves**

Mourning dove

**Barn owl**

Barn owl

**Crows and ravens**

Common raven

**Wrens**

House wren

**Finches**

House finch

## **MAMMALIA**

### **Leporidae**

*Sylvilagus audubonii*

### **Sciuridae**

*Spermophilus beecheyi*

### **Geomyidae**

*Thomomys bottae*

### **Cricetidae**

*Reithrodontomys megalotis*

*Peromyscus maniculatus*

### **Canidae**

*Canis latrans*

### **Procyonidae**

*Procyon lotor*

## **MAMMALS**

### **Rabbits and hares**

Audubon's cottontail

### **Squirrels, chipmunks and marmots**

California ground squirrel

### **Pocket gophers**

Botta's pocket gopher

### **Cricetine mice and rats**

Western harvest mouse

Deer mouse

### **Foxes, wolves and relatives**

Coyote

### **Raccoons and relatives**

Raccoon

Nomenclature follows Garth & Tilden 1986, Hall 1981, Laudenslayer et al. 1991, and Stebbins 1966.



*Appendix C – Site Photographs*



**Edge of property adjacent to drainage**



**Upper Graded pad on Site**

## Hydric Soils

This table lists the map unit components that are rated as hydric soils in the survey area. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 2002).

The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for all of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils, under natural conditions, are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 2002). These criteria are used to identify map unit components that normally are associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (Soil Survey Staff, 1999) and "Keys to Soil Taxonomy" (Soil Survey Staff, 2006) and in the "Soil Survey Manual" (Soil Survey Division Staff, 1993).

If soils are wet enough for a long enough period of time to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and Vasilas, 2006).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units that are dominantly made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units dominantly made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

The criteria for hydric soils are represented by codes in the table (for example, 2). Definitions for the codes are as follows:



1. All Histels except for Folistels, and Histosols except for Folists.
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Historthels great group, Histoturbels great group, Pachic subgroups, or Cumulic subgroups that:
  - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - B. Show evidence that the soil meets the definition of a hydric soil;
3. Soils that are frequently ponded for long or very long duration during the growing season.
  - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - B. Show evidence that the soil meets the definition of a hydric soil;
4. Map unit components that are frequently flooded for long duration or very long duration during the growing season that:
  - A. Based on the range of characteristics for the soil series, will at least in part meet one or more Field Indicators of Hydric Soils in the United States, or
  - B. Show evidence that the soil meets the definition of a hydric soil;

Hydric Condition: Food Security Act information regarding the ability to grow a commodity crop without removing woody vegetation or manipulating hydrology.

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## Report—Hydric Soils



Hydric Soils---Western Riverside Area, California

Hydric Soils--Western Riverside Area, California				
Map symbol and map unit name	Component	Percent of map unit	Landform	Hydric criteria
RsC--Riverwash				
	Riverwash	100	Channels	2, 4

### Data Source Information

Soil Survey Area: Western Riverside Area, California  
 Survey Area Data: Version 11, Sep 12, 2018



## Memorandum

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Date: August 9, 2019

Subject: Burrowing Owl Survey Report for the proposed Assessor's Parcel Number 910-230-003 located in Riverside County, California.

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This memorandum provides the methods and results of a Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) burrowing owl (*Athene cunicularia*) (BUOW) survey for Assessor's Parcel Number (APN) 910-230-003 (5.83 acres), which is located in Riverside County, California.

### **Project Location**

The proposed project site, APN 910-230-003 (5.83 acres), consist of vacant land located in Riverside County, California. APN 910-230-003 is located on the west side of Madison Avenue, south of Elm Street and north of Pear Street. Refer to Figure 1 and Figure 2. Specifically, the project site is located within Temecula Land Grant of the *Murrieta* United States Geological Survey (USGS) 7.5' topographic quadrangle. The center point latitude and longitude for the project site are 33°32'04.1869" North and 117°10'32.6193" West (Figures 1 and 2).

The study area included APN 910-230-003 and a 150-meter (500-foot) buffer around the site (Figure 3), where accessible.

### **Project Contact Information**

Owner/Applicant: W. M. LYLES Co.

Principal Investigator: Juan J. Hernandez



### Field Survey Methods

HES implemented the three steps as described in the *Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area* (Attachment A). The “General Biological Assessment and Western Riverside MSHCP Consistency Analysis” prepared for the project, determined that focused surveys for BUOW would be required due to the presence of suitable habitat documented during the July 3, 2019 habitat assessment. In accordance with the *Burrowing Owl Survey Instructions for the Western Riverside County Multiple Species Habitat Conservation Plan Area*, focused burrow and focused BUOW surveys (Part A and Part B, respectively) were conducted on four separate days during the breeding season: July 17, July 23, July 29, and July 31 2019. Survey times, weather, and sunrise/sunset information is described in Table 1 below.

**Table 1. Survey Information**

Survey	Date	Survey Start Time	Sunrise/Sunset	Weather
1	July 17, 2019	0700 hours	0608 hours	81 degrees Fahrenheit, clear, winds 0-3 miles per hour from the northeast
2	July 23, 2019	0700 hours	0606 hours	89 degrees Fahrenheit, clear, winds 0-3 miles per hour from the north
3	July 29, 2019	0700 hours	0606 hours	87 degrees Fahrenheit, clear, winds 0-3 miles per hour from the northeast
4	July 31, 2019	0700 hours	0607 hours	86 degrees Fahrenheit, clear, winds 0-3 miles per hour from the North.

Surveys were conducted from one hour before sunrise to two hours after sunrise or two hours before sunset to one hour after sunset and during weather that was conducive to observing owls outside their burrows and detecting BUOW sign. The surveys were not conducted during rain, high winds (> 20 miles per hour), dense fog, or temperatures above 90 degrees Fahrenheit. Surveys involved walking through potentially suitable habitat within the survey area. The pedestrian survey transects were spaced approximately 30 to 50 feet apart to allow 100 percent visual coverage of the ground surface. Special attention was paid to those habitat areas that appeared to provide suitable habitat for BUOW. Where permission to access the buffer areas could not be obtained, the biologist visually inspects adjacent habitats with binoculars.

All encountered burrows or structure entrances were checked for the presence of BUOW, molted feathers, cast pellets, prey remains, eggshell fragments, tracks, or excrement. Natural or man-made structures and debris piles that could support BUOW were also surveyed. The locations of all suitable BUOW habitat, potential burrows, BUOW sign, and any BUOW observed was recorded and mapped with a handheld Global Positioning System (GPS) unit.

All wildlife species encountered visually or audibly during the field survey were identified and recorded in field notes. Binoculars were used to aid in the identification of observed wildlife. Photographs were taken to document existing conditions within the survey area.

## Results


The project site contains three different habitat types: ruderal, disturbed coastal sage scrub, and cottonwood riparian forest. Four soil classes are identified to occur on the project site by the USDA Web Soil Survey. Soils at the project site are classified as: Arlington and Greenfield fine sandy loams, 2 to 8 percent slopes, eroded; Arlington and Greenfield fine sandy loams, 8 to 15 percent slopes, eroded; Grangeville Fine sandy loam, drained, 0 to 2 percent sloped; Riverwash. The project site is bordered by a vacant lot to the north, a vacant lot to the east, and commercial developments to the south and west. The project site is disturbed and appears to be routinely maintained for weed abatement purposes. The site is relatively flat with a gentle slope from northwest to southeast. The elevation on the project site ranges from 1,051 feet above mean sea-level (AMSL) to 1,083 feet AMSL.

Based on the results of the focused burrow survey conducted on July 17, 2019, it was determined that the project site provides suitable burrows/nesting opportunities for BUOW. A total of one suitable burrow measuring four inches or greater in diameter were checked and recorded within the study area (Figure 4). The majority of suitable burrows identified occur on small slopes within the boundaries of the study area. Evidence of ground squirrels and ground squirrel activities were observed on the project site. Although the project site supports fossorial mammal burrows and non-natural substrates capable of supporting BUOW, no BUOW or BUOW sign was observed at the entrance or adjacent to these burrows within the study area.

Despite systematic searches of APN 910-230-003 and 150-meter buffer area, no BUOW or evidence (i.e., including scat, pellets, feathers, tracks, and prey remains) were found which suggest recent or historical use of the study area by BUOW. Therefore, it can be concluded that BUOW are not currently present within the study area.

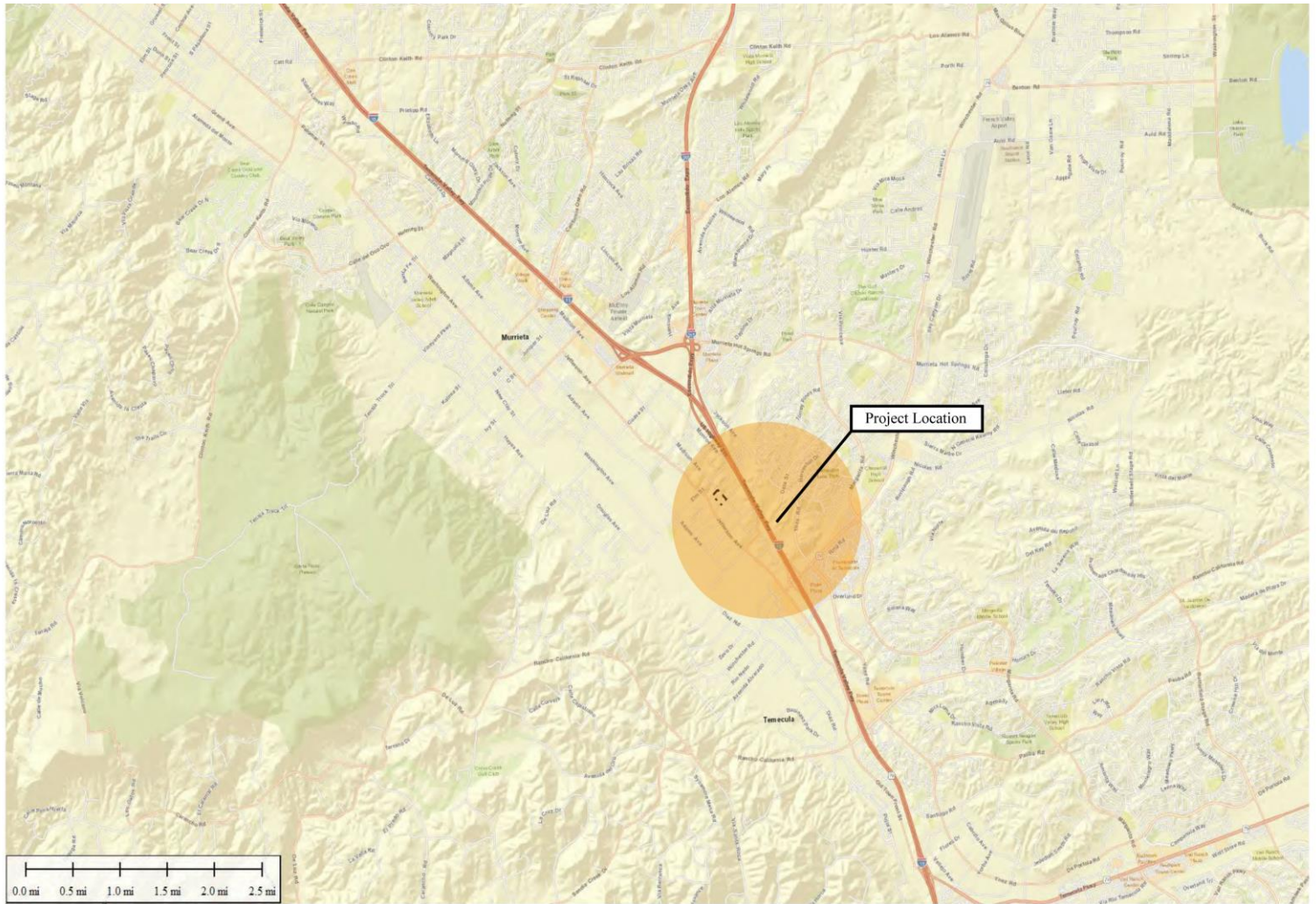


**Figure 1**  
Location Map  
APN 910-230-003  
Murrieta, Riverside County, CA


**Legend**  
 Property Line







**Figure 2**  
Vicinity Map  
APN 910-230-003  
Murrieta, Riverside County, CA

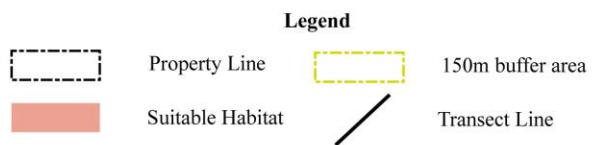
**Legend**  
 Property Line







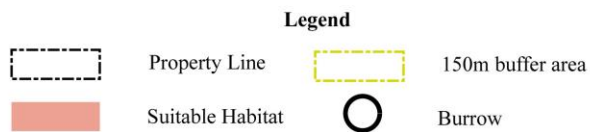
**Figure 3**  
Survey Area Map  
APN 910-230-003  
Murrieta, Riverside County, CA







**Figure 4**  
 Survey Results Map  
 APN 910-230-003  
 Murrieta, Riverside County, CA



## **BURROWING OWL SURVEY INSTRUCTIONS**

### **For the**

### **Western Riverside Multiple Species Habitat Conservation Plan Area**

#### **PURPOSE OF THE SURVEYS**

According to the Multiple Species Habitat Conservation Plan (MSHCP), surveys for the burrowing owl are to be conducted as part of the environmental review process. The MSHCP Additional Surveys Needs and Procedures identify a specific burrowing owl survey area within the MSHCP Plan Area. The MSHCP also identifies species-specific objectives for the burrowing owl, namely species-specific objectives 5 and 6, both of which require burrowing owl surveys if suitable habitat occurs on a proposed project site.

Although the MSHCP references the California Department of Fish and Game Staff report which is based on the Burrowing Owl Consortium Guidelines, the purpose of the following instructions is to clarify the methods necessary to obtain sufficient information to address consistency with; 1) specific conservation requirements of the MSHCP as identified in species-specific Objective 5, and 2) ensure direct mortality of burrowing owls is avoided through implementation of species-specific objective 6 (Pre-construction surveys). Note that surveys conducted to address burrowing owl species-specific objective 5 are necessary during the project design phase while surveys to address species-specific objective 6 are to be conducted just prior to project construction. Habitat assessments and burrowing owl surveys should be conducted by a biologist knowledgeable in burrowing owl habitat, ecology, and field identification of the species and burrowing owl sign.

#### **STEP I: HABITAT ASSESSMENT**

**Burrowing Owl Habitat Description:** Burrowing owls use a variety of natural and modified habitats for nesting and foraging that is typically characterized by low growing vegetation. Burrowing owl habitat includes, but is not limited to, native and non-native grassland, interstitial grassland within shrub lands, shrub lands with low density shrub cover, golf-courses, drainage ditches, earthen berms, unpaved airfields, pastureland, dairies, fallow fields, and agricultural use areas.

Burrowing owls typically use burrows made by fossorial (adapted for burrowing or digging) mammals, such as ground squirrels (*Spermophilus beecheyi*) or badgers (*Taxidea taxus*), they often utilize manmade structures, such as earthen berms; cement culverts; cement, asphalt, rock, or wood debris piles; or openings beneath cement or asphalt pavement. Burrowing owls are often found within, under, or in close proximity to man-made structures.

The first step in the assessment process is to walk the property to identify the presence of burrowing owl habitat on the project site. If habitat is found on the site, then walk a 150-meter (approximately 500 feet) buffer zone around the project boundary. If permission to access the buffer area cannot be obtained, do not trespass on adjacent property but visually inspect the adjacent habitat areas with binoculars and/or spotting scopes. Habitat assessments that do not include walking the property will not be accepted. Driving by a site and reporting it as disturbed or under agricultural/dairy use is not acceptable.



3/29/06

If burrowing owl habitat occurs on-site, both Step II (focused surveys, census, and mapping) and Preconstruction Surveys are required. If burrows are found during the habitat assessment then suitable habitat is present and Step II is required. However, lack of identifying burrows during the habitat assessment does not negate the need for the systematic search for burrows included as part of the Step II survey instructions. If burrowing owl habitat is not present on-site (i.e. if the site is completely covered by chaparral, cement or asphalt) Step II of the survey is not necessary. No Pre-construction surveys are necessary if there is no suitable habitat on-site.

A written report (with photographs of the site) detailing results of the habitat assessment should be prepared, indicating whether or not the project site contains suitable burrowing owl habitat. Simply reporting that the site is disturbed or under agricultural/dairy use is not acceptable.

## **STEP II- LOCATING BURROWS AND BURROWING OWLS**

Completion of the following will constitute an acceptable burrowing owl survey. A minimum of one site visit must occur, but additional visits may be warranted depending on the results of the first site visit. Surveys conducted during the breeding season March 1 - August 31 are required to describe if, when, and how the site is used by burrowing owls. Negative results during surveys outside the breeding season are not conclusive proof that owls do not use the project site and may not provide an accurate picture of the number of owls that may utilize the site. Surveys that are conducted outside the breeding season will likely need to be repeated during the breeding season; therefore, it is recommended that surveys only be conducted during the breeding season (unless conducting Preconstruction surveys).

All surveys shall be conducted as described in Parts A and B below. Surveys should be conducted during weather that is conducive to observing owls outside their burrows and detecting burrowing owl sign. Surveys will not be accepted if they are conducted during rain, high winds (> 20 mph), dense fog, or temperatures over 90 °F. Part B surveys should be conducted in the morning one hour before sunrise to two hours after sunrise or in the early evening two hours before sunset to one hour after sunset. Count and map all burrowing owl sightings, occupied burrows, and burrows with owl sign. Record the location of all owls including numbers of pairs and juveniles and any behavior such as courtship and mating. Map the extent of all suitable habitat. It should be noted that owl sign may not be detectable if surveys under Part A are conducted within 5 days following rain. Absence of burrowing owl sign cannot be used to confirm absence of the species if the focused burrow survey (Part A) is conducted within 5 days of rain; therefore, in this instance, completion of all four focused burrowing owl surveys (Part B) is required.

### ***Part A: Focused Burrow Surveys***

A focused burrow survey that includes natural burrows or suitable man-made structures needs to be conducted as described below.



3/29/06

1. A systematic survey for burrows including burrowing owl sign should be conducted by walking through suitable habitat over the entire survey area (i.e. the project site and within 150 meters). Pedestrian survey transects need to be spaced to allow 100% visual coverage of the ground surface.

The distance between transect center lines should be no more than 30 meters (approximately 100 ft.) and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more qualified surveyors conduct concurrent surveys.

2. The location of all suitable burrowing owl habitat, potential owl burrows, burrowing owl sign, and any owls observed should be recorded and mapped, including GPS coordinates. If the survey area contains natural or man-made structures that could potentially support burrowing owls, or owls are observed during the burrow surveys, the systematic surveys should continue as prescribed in Part B. If no potential burrows are detected, no further surveys are required. A written report including photographs of the project site, location of burrowing owl habitat surveyed, location of transects, and burrow survey methods should be prepared. If the report indicates further surveys are not required, then the report should state the reason(s) why further focused burrowing owl surveys are not necessary.

#### ***Part B: Focused Burrowing Owl Surveys***

Focused Burrowing Owl Surveys will consist of site visits on four separate days. The first one may be conducted concurrent with the Focused Burrow Survey.

1. Upon arrival at the survey area and prior to initiating the walking surveys, surveyors using binoculars and/or spotting scopes should scan all suitable habitat, location of mapped burrows, owl sign, and owls, including perch locations to ascertain owl presence. This is particularly important if access has not been granted for adjacent areas with suitable habitat.
2. A survey for owls and owl sign should then be conducted by walking through suitable habitat over the entire project site and within the adjacent 150 m (approx. 500 feet). These "pedestrian surveys" should follow transects (i.e. Survey transects that are spaced to allow 100% visual coverage of the ground surface. The distance between transect center lines should be no more than 30 meters (approx 100 feet.) and should be reduced to account for differences in terrain, vegetation density, and ground surface visibility. To efficiently survey projects larger than 100 acres, it is recommended that two or more qualified surveyors conduct concurrent surveys.) It is important to minimize disturbance near occupied burrows during all seasons.

3/29/06

3. If access is not obtained, then the area adjacent to the project site shall also be surveyed using binoculars and/or spotting scopes to determine if owls are present in areas adjacent to project site. This 150-meter buffer zone is included to fully characterize the population. If the site is determined not to be occupied, no further surveys are required until 30 days prior to grading (see Pre-construction Surveys below).

### **STEP III: REPORTING REQUIREMENTS**

After completion of appropriate surveys, a final report shall be submitted to the Riverside County Environmental Programs Department and the RCA Monitoring Program Administrator, which discusses the survey methodology, transect width, duration, conditions, and results of the survey. Appropriate maps showing burrow locations shall be included.

### **PRE-CONSTRUCTION SURVEYS**

All project sites containing burrows or suitable habitat (based on Step I/Habitat Assessment) whether owls were found or not, require pre-construction surveys that shall be conducted within 30 days prior to ground disturbance to avoid direct take of burrowing owls (MSHCP Species-Specific Objective 6).

**JURISDICTIONAL DELINEATION  
FOR  
MADISON AVENUE OFFICE AND WAREHOUSE BUILDING PROJECT  
APN 910-230-003**

**CITY OF MURRIETA  
COUNTY OF RIVERSIDE, CALIFORNIA**

**Prepared for:**  
W.M. LYLES Co.

**Prepared by:**  
Juan J. Hernandez

**August 2019**

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## **APPENDICES**

- Appendix A – Site Photos
- Appendix B – Soils Map



## **1.0 Introduction**

DEC LLC was contracted to prepare a Jurisdictional Delineation (JD) for Tentative the Madison Avenue Office and Warehouse Project on Assessor's Parcel Number (APN) 910-230-003. The project site consists of approximately 5.83 acres located on the west side of Madison Avenue, south of Elm Street and north of Pear Street, in the city of Murrieta, Riverside County, California.

### **1.1 Purpose**

The purpose of this JD is to:

- Determine if any state or federal jurisdictional waters are present within the project site boundaries;
- Quantify any impacts to jurisdictional waters due to the proposed project, if possible;
- Determine if the project will require state or federal permits for impacts to jurisdictional waters; and,
- Recommend mitigation measures to offset impacts to state or federal jurisdictional waters.

### **1.2 Site Location**

The project site is located at the southwest corner of west side of Madison Avenue, south of Elm Street and north of Pear Street. The site is located within the City of Murrieta, Riverside County, California. The project site consists of Riverside County APNs 910-230-003. Specifically, the project site is located within Murrieta Land Grant of the *Murrieta* United States Geological Survey (USGS) 7.5' topographic quadrangle. The center point latitude and longitude for the project site are 33°32'04.1869" North and 117°10'32.6193" West (Figures 1 and 2).

### **1.3 Project Description**

To be provided at a later date.

## **2.0 Regulatory Background**

### **2.1 California Department of Fish and Wildlife Lake and Streambed Alteration Agreement**

The California Department of Fish and Wildlife (CDFW) is responsible for conserving, protecting, and managing California's fish, wildlife, and native plant resources. To meet this responsibility, the California Fish and Game Code (F&GC), requires that the CDFW be consulted if a proposed development project has the potential to detrimentally effect a stream and thereby wildlife resources that depend on a stream for continued viability (F&GC Division 2, Chapter 5, section 1600-1616). A Section 1602 Lake or Streambed Alteration Agreement is

required, should the CDFW determine that the proposed project may do one or more of the following:

- Substantially divert or obstruct the natural flow of any river, stream or lake;
- Substantially change or use any material from the bed, channel or bank of any river, stream, or lake; or
- Deposit debris, waste or other materials that could pass into any river, stream or lake.

For the purposes of clarification, a stream is defined by CDFW as “a body of water that flows perennially or episodically and that is defined by the area in which water currently 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.” The historic hydrologic regime is defined as circa 1800 to the present (CDFW 2010).

## **2.2 Regional Water Quality Control Board Clean Water Act /Porter-Cologne Act**

The Regional Water Quality Control Board (RWQCB) regulates activities pursuant to Section 401(a)(1) of the federal Clean Water Act (CWA) as well as the Porter Cologne Act (Water Code section 13260). Section 401 of the CWA specifies that certification from the State is required for any project requesting a federal license or permit to conduct any activities including, but not limited to, the construction or operation of facilities that may result in any discharge into navigable waters. The certification shall originate from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable water at the point where the discharge originates or will originate. Any such discharges will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of the CWA. The Porter Cologne Water Quality Control Act (PCWQCA) requires “any person discharging waste, or proposing to discharge waste, within any region that could affect the waters of the state to file a report of discharge.” Discharge of fill material into “waters” of the State which does not fall under the jurisdiction of the United States Army Corps of Engineers (USACE) pursuant to Section of the Clean Water Act, may require authorization through application of waste discharge requirements or through waiver of Waste Discharge Requirements.

## **2.3 United States Army Corps of Engineers Clean Water Act 404 Permit**

The United States Army Corps of Engineers (USACE) regulates “discharge of dredged or fill material” into wetlands and waters of the United States, which includes tidal waters, interstate waters, and “all other waters, interstate lakes, rivers, streams (including intermittent streams), mud flats, sand flats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes or natural ponds, the use, degradation, or destruction of which could affect interstate or foreign commerce or which are tributaries to waters subject to the ebb and flow of the tide” (33 C.F.R. 328.3(a)), pursuant to provisions of Section 404 of the Clean Water Act.

The USACE requires that the 1987 Corps of Engineers Wetland Delineation Manual (Environmental Laboratories, 1987) be used for delineating wetlands and waters of the United States. To qualify for wetlands status; vegetation, soils, and hydrologic parameters must all be met. "Waters" of the U.S. are delineated based upon the "ordinary high water mark" (OHWM) as determined by erosion, the deposition of vegetation or debris, and changes in vegetation within rivers and streams.

For the purposes of this section, the term "fill" is defined as: material placed in waters of the United States where the material has the effect of:

- Replacing any portion of a water of the United States with dry land; or
- Changing the bottom elevation of any portion of a water of the United States.

Examples of such fill material include, but are not limited to: rock, sand, soil, clay, plastics, construction debris, wood chips, overburden from mining or other excavation activities, and materials used to create any structure or infrastructure in the waters of the United States. The term fill material does not include trash or garbage.

The definition of "discharge of dredged material" is defined as: any addition of dredged material into, including redeposit of dredged material other than incidental fallback within, the waters of the United States. The term includes, but is not limited to, the following:

- The addition of dredged material to a specified discharge site located in waters of the United States;
- The runoff or overflow, associated with a dredging operation, from a contained land or water disposal area; and
- Any addition, including redeposit other than incidental fallback, of dredged material, including excavated material, into waters of the United States which is incidental to any activity, including mechanized land clearing, ditching, channelization, or other excavation.

The term discharge of dredged material does not include the following:

- Discharges of pollutants into waters of the United States resulting from the onshore subsequent processing of dredged material that is extracted for any commercial use (other than fill). These discharges are subject to section 402 of the Clean Water Act even though the extraction and deposit of such material may require a permit from the Corps or applicable State.
- Activities that involve only the cutting or removing of vegetation above the ground (e.g.,



mowing, rotary cutting, and chain-sawing) where the activity neither substantially disturbs the root system nor involves mechanized pushing, dragging, or other similar activities that redeposit excavated soil material.

- Incidental fallback.

### **3.0 Methodology**

#### **3.1 Literature Review**

Prior to the site visit, a literature review was conducted to aid in determining the potential for permanent, intermittent or ephemeral drainages, wetlands and riparian vegetation. Project background documents, topographic maps, satellite imaging, soils maps, and land use maps were examined to establish an accurate project site location, project description, potential for onsite drainages and wetlands, records of on-site vegetation, watershed, soils, and surrounding land uses.

#### **3.2 Field Survey**

On July 3, 2019, was conducted a field survey of the approximately 5.83-acre project site. Field surveys were conducted to delineate jurisdictional drainages and wetlands resources associated with jurisdictional drainages.

Jurisdictional drainages were identified by looking for features such as a bed, bank or channel. Where riparian vegetation was present, the drip line of the outer edge of the vegetation was used as the measuring criteria. Furthermore, the presence of an ordinary high water mark (OHWM) was recorded. The OHWM is defined as: “on non-tidal rivers, the line on the shore established by the fluctuations of water and indicated by the physical characteristics such as a 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 area.” Where the presence of an OHWM was evident, a measurement was taken for the width of the OHWM and the measurement was recorded. Areas measured were also recorded using hand-held GPS for accurate location reference.

Where changes in plant community composition were apparent, the area was examined for the possibility of wetlands. Whether or not adjacent to “waters of the U.S.”, the potential wetland area was evaluated for the presence of the three wetland indicators: hydrology, hydric soils and hydrophytic vegetation. The guidelines followed are those established in the 1987 Army Corps of Engineers Manual.



## **4.0 Results**

### **4.1 Environmental Setting**

The site is located within the city of Murrieta in Riverside County, California. It is bordered by a vacant lot to the north, a vacant lot to the east, and commercial developments to the south and west. The project site is disturbed and appears to be routinely maintained for weed abatement purposes. The site is relatively flat with a gentle slope from northwest to southeast. The elevation on the project site ranges from 1,051 feet above mean sea-level (AMSL) to 1,083 feet AMSL.

### **4.2 Existing Hydrological Features**

The 5.83-acre site contains an ephemeral stream located in the southeastern portion of the site (Warm Springs Creek). The stream flows from northeast to southwest and is a tributary to Murrieta Creek. The flows within the drainage appear to be predominantly ephemeral.

### **4.3 Soils**

Four soil classes are identified to occur on the project site by the USDA Web Soil Survey (Appendix E). Soils at the project site are classified as:

- Arlington and Greenfield fine sandy loams, 2 to 8 percent slopes, eroded;
- Arlington and Greenfield fine sandy loams, 8 to 15 percent slopes, eroded;
- Grangeville Fine sandy loam, drained, 0 to 2 percent sloped; and
- Riverwash

Based on the USDA Web Soil Survey, Riverwash is classified as a Hydric soil.

### **4.4 Hydrology**

The project site is located within the San Diego hydrologic basin plan. The project is also in the Santa Margarita hydrologic unit, the Murrieta hydrologic area, and the French Valley hydrologic sub-area. The 5.83-acre site contains one drainage feature that flows from northeast to southwest and is located on the southeastern portion of the site. The existing drainage is Warm Springs Creek and is a tributary to Murrieta Creek which flows to the Santa Margarita River and into the Pacific Ocean. The flows within the drainage appear to be predominantly ephemeral; however, urban runoff from the surrounding commercial developments does provide hydrology to the drainage.

### **4.5 Existing Wetlands**

The project site does not contain any adjacent wetlands or vernal pools within the project boundary. Warm Springs Creek does contain hydric soils, is dominated by hydrophytic

vegetation and has evidence of hydrology. This area will be completely avoided by the project activities.

#### **4.6 California Department of Fish and Wildlife Jurisdiction**

The project site contains approximately 0.98 acre (436 linear feet) of CDFW jurisdictional stream and associated riparian vegetation that would be regulated under Section 1602 of the Fish and Game Code (Figure 3). CDFW jurisdiction was measured from the outside drip-line of riparian vegetation. Riparian vegetation found in the CDFW jurisdictional areas includes 0.98 acre of Fremont cottonwood (*Populus fremontii*) riparian woodland and an understory of mulefat (*Baccharis salicifolia*) dominant shrubs.

#### **4.7 Waters of the United States**

The project site contains approximately 0.62 acre of “waters of the United States” (WUS) that would be under the jurisdiction of the Federal CWA (Figure 4). Warm Springs Creek is tributary to Murrieta Creek, which flows to the Santa Margarita River and into the Pacific Ocean. This WUS has a physical, chemical and biological effect on a traditional navigable water-in this case the Pacific Ocean-thus, providing a significant nexus.

Any placement of dredge or fill material into these WUS would require a Section 404 permit of the Clean Water Act issued by the USACE. The WUS was delineated by identifying the OHWM. The WUS present is described in the *U.S. Army Corps of Engineers Jurisdictional Determination Form Instructional Guidebook* as “non-relatively permanent waters that flow directly or indirectly into traditional navigable water.”

#### **4.8 Regional Water Quality Control Board Jurisdiction**

Beneficial uses for this ephemeral drainage have been identified by the San Diego Basin Plan as Municipal and Domestic Supply (MUN), Agriculture (AGR), Industrial Service Supply (IND), Industrial Process supply (PROC), Groundwater Recharge (GWR), Potential Water Contact Recreation (REC1), Non-Contact Water Recreation (REC2), Warm Freshwater Habitat (WARM), Cold Freshwater Habitat (COLD), and Wildlife Habitat (WILD). The Certification issued by the RWQCB would ensure that the Clean Water Act 404 permit upholds water quality standards established in the federal Clean Water Act and the Basin Plan for San Diego.

### **5.0 Recommendation**

USACE, CDFW, and RWQCB jurisdictional waters are regulated by federal, state, and local governments under a no-net-loss policy, and all impacts are considered significant and should be avoided to the greatest extent possible. The project has been designed to avoid any direct or indirect impacts to jurisdictional waters and wetlands. However, should impacts to jurisdictional waters and wetlands result from project implementation, the project would require mitigation through habitat creation, enhancement, or preservation as determined by consultation with the

regulatory agencies during the permitting process. Any impacts to CDFW jurisdictional waters would require a 1600 Streambed Alteration Agreement from the CDFW. Any impacts to WUS would require a Section 404 permit authorization from the USACE and a 401 State Water Quality Certification from the RWQCB. Should impacts to jurisdictional waters and wetlands result from project implementation, mitigation for impacts to jurisdictional resources will be addressed in a mitigation plan to be submitted for approval with the permit application packages.

## 6.0 Certification

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



DATE 08/12/19

SIGNED

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Project Manager

Fieldwork Performed By:

Juan J. Hernandez

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Principal Biologist



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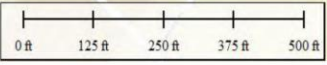
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
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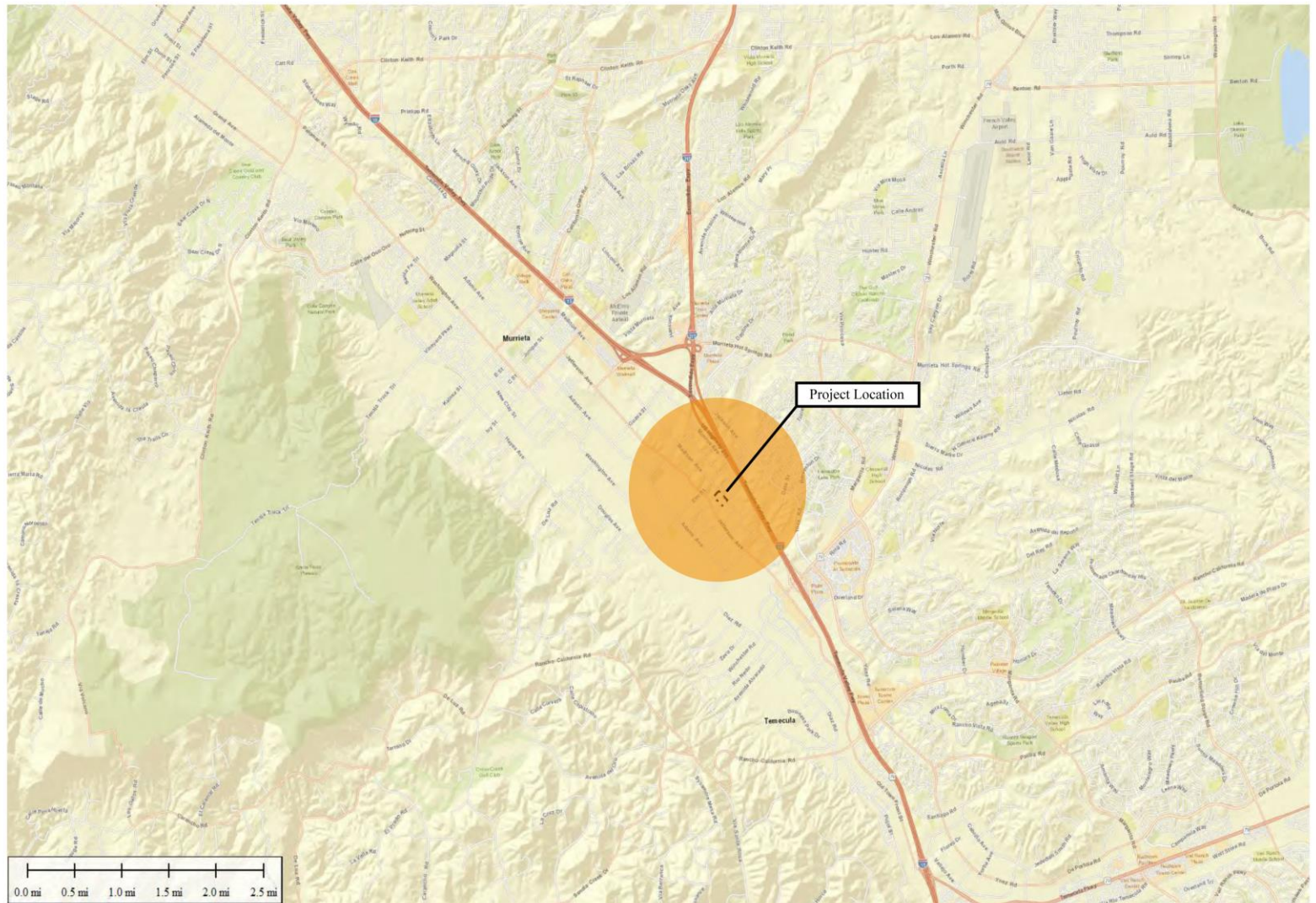


**Figure 1**  
Location Map  
APN 910-230-003 Biological Studies  
Murrieta, Riverside County, CA


**Legend**

 Property Line

**N**  




**Figure 2**  
 Vicinity Map  
 APN 910-230-003 Biological Studies  
 Murrieta, Riverside County, CA

**Legend**  
 Property Line



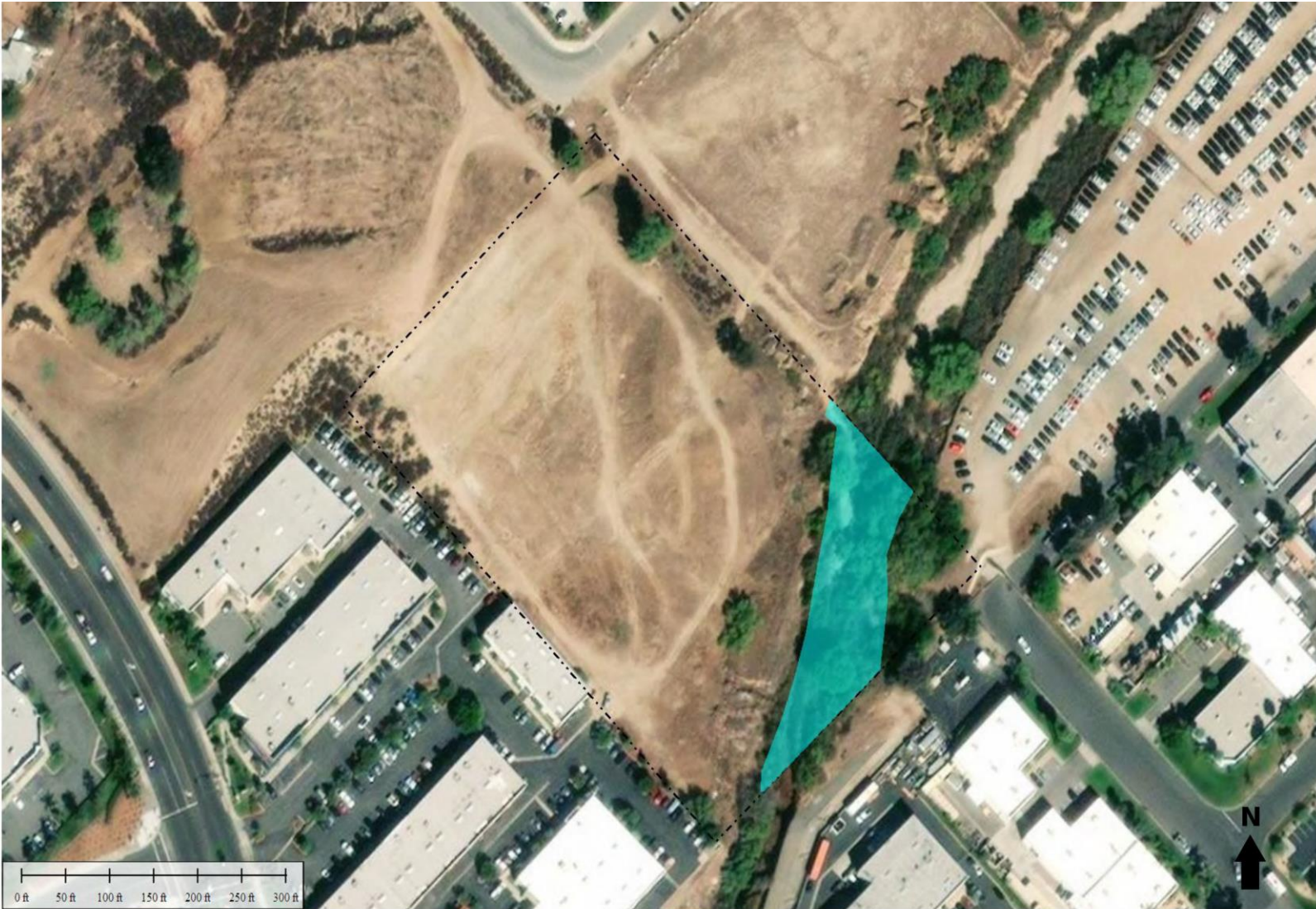




**Figure 3**  
 CDFW Jurisdiction Map  
 APN 910-230-003 Biological Studies  
 Murrieta, Riverside County, CA







**Figure 4**  
WUS Map  
APN 910-230-003 Biological Studies  
Murrieta, Riverside County, CA





## **Madison Avenue Office and Warehouse Project**

Jurisdictional Delineation

APN 910-230-003

City of Murrieta, County of Riverside, CA



Fremont cottonwood dominant habitat in Warm Springs Creek.



Red willow and mulefat shrub dominant habitat.

**Madison Avenue Office and  
Warehouse Project**  
Jurisdictional Delineation  
APN 910-230-003  
City of Murrieta, County of Riverside, CA



Warm Springs Creek. Picture was taken facing southeast.



Warm Springs Creek with the ordinary high water mark visible.





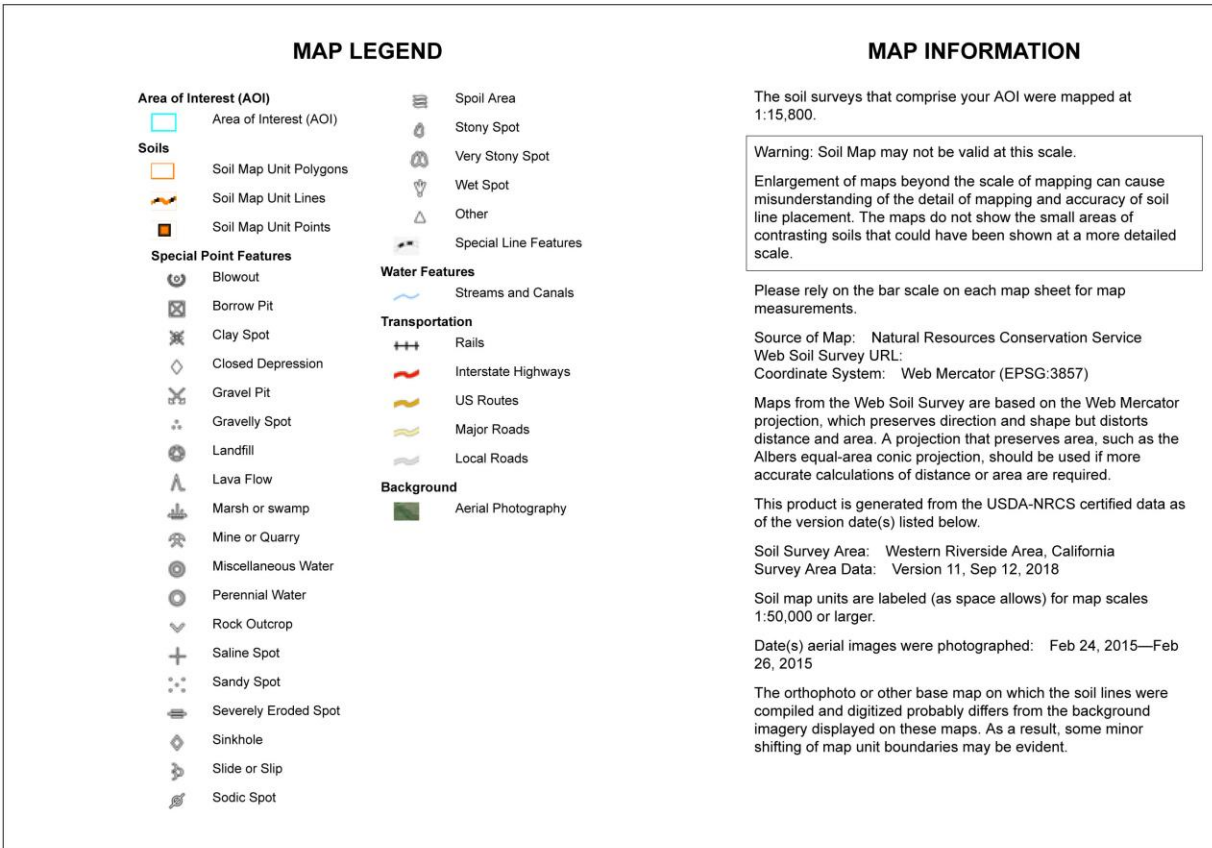
**Natural Resources  
Conservation Service**

Web Soil Survey  
National Cooperative Soil Survey

8/9/2019  
Page 1 of 3



## Soil Map—Western Riverside Area, California



## Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AtC2	Arlington and Greenfield fine sandy loams, 2 to 8 percent slopes, eroded	2.6	43.6%
AtD2	Arlington and Greenfield fine sandy loams, 8 to 15 percent slopes, eroded	3.0	50.3%
GtA	Grangeville fine sandy loam, drained, 0 to 2 percent slopes	0.0	0.0%
RsC	Riverwash	0.4	6.1%
<b>Totals for Area of Interest</b>		<b>6.0</b>	<b>100.0%</b>

