



**BIOLOGICAL RESOURCES STUDY
FOR
ASSESSOR'S PARCEL NUMBER 0298-063-07**

**City of Redlands
San Bernardino County, California**

Prepared for:

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1.0 Introduction

800 Opal, LLC (Client) contracted Hernandez Environmental Services (HES) to conduct a Biological Resources Study (BRS) on Assessor's Parcel Numbers (APNs) 0298-063-07, located in the community of Mentone. The purpose of the BRS is to document the presence/absence of sensitive resources that may be present on the site, to document existing habitats, and generally address biological questions that may be needed for project approval. This BRS will present the results obtained from the June 1, 2017 field survey, and provide recommendations that may be needed to mitigate potential biological impacts from project activities.

1.1 Project Site Location

The approximate 38.3-acre project site is located on the north side of Colton Avenue, south of Nice Avenue and on the east side of Opal Avenue in the community of Mentone, City of Redlands, San Bernardino County, California (Figures 1 and 2). Specifically, the site is located within Section 19, Range 2 west, Township 1 south of the *Redlands 7.5-minute U.S. Geological Survey (USGS) topographic quadrangle*. Access to the project area is provided by the Interstate 10 Freeway located south of the site. Land uses surrounding the project site include residential development to the north and east, Redlands East Valley High School to the south, and industrial/commercial use to the west.

1.2 Project Description

The project consists of the development of approximately 1,098,475 square feet of access, parking, and storage areas for an existing manufacturing/warehouse facility. The project also includes the installation of landscaping and related appurtenances.

2.0 Methodology

2.1 Literature Review

HES conducted a literature review and reviewed aerial photographs and topographic maps of the project site and surrounding areas. The *Redlands 7.5' USGS topographic quadrangle* and eight surrounding quadrangles were used to identify sensitive species in the California Natural Diversity Data Base (CNDDDB). Additional resources reviewed during the literature search included the United States Fish and Wildlife (USFWS) Endangered Species Lists, and the California Native Plant Society's (CNPS) Rare plant lists to obtain species information for the project area.

2.2 Field Survey

On June 1, 2017, HES conducted a field survey of the approximate 38.3-acre project site. Ambient temperature during the field survey was 68° Fahrenheit, overcast skies, with 0-3 mile per hour winds 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 uses, assess the potential for state and federal waters, assess potential for wildlife movement corridors, and if critical habitat is present, assess for the presence of constituent elements.

The entire 38.3-acre project site was surveyed. Linear transects approximately 50 feet apart were walked for 100 percent coverage. All species observed were recorded and Global Positioning System (GPS) way points were taken to delineate specific habitat types, species locations, state or federal waters, or 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.

3.0 Existing Conditions and Results

3.1 Environmental Setting

The 38.3-acre project site is predominantly flat and the majority of the site has been developed. The project site contains existing commercial buildings and associated hard-scape and landscaping. The remaining project site is composed of ruderal open fields. The project site is surrounded by residential and open ruderal fields to the north, residential homes to the east, a school to the south, and commercial buildings to the west.

3.2 Soils

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

- Hanford coarse sandy loam (HaC), 2 to 9 percent slopes
- Soboba gravelly loamy sand (SoC), 0 to 9 percent slopes.
- Tujunga gravelly loamy sand (TvC), 0 to 9 percent slopes

3.3 Plant and Habitat Communities

The project site has two habitat types, including 25.3 acres of developed commercial buildings and associated pavements, and landscaping, and 13 acres of ruderal fields dominated by non-native plants.

3.3.1 Developed

The project site contains approximately 25.3 acres of areas that are developed. The project site contains three existing commercial buildings. The buildings are surrounded by paved parking spaces and landscaped areas dominated by ornamental plant species.

3.3.2 Ruderal

The project site contains approximately 13 acres of areas described as ruderal. These are mostly composed of disturbed vacant fields dominated by non-native herbaceous plant species. Common plant species observed in the habitat type include: slim oat (*Avena barbata*), black mustard (*Brassica nigra*), ripgut brome (*Bromus diandrus*), foxtail brome (*Bromus madritensis* ssp. *Rubens*), goosefoot (*Chenopodium murale*), Jimson weed (*Datura stramonium*), mustard (*Hirschfeldia incana*), Russian thistle (*Salsola tragus*) and schismus (*Schismus barbatus*).

4.0 Sensitive Biological Resources

4.1 Threatened and Endangered Species

Sensitive species potentially present include those 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 habitat that these species use was evaluated on the project site and a determination was made for the presence or probability of presence in this report. This section will address those species listed as Candidate, Rare, Threatened, or Endangered under the state and federal endangered species laws. Other special status species will be reported in Appendix B and individually discussed in the Recommendations Section of this report.

4.1.1 Threatened and Endangered Plants

Marsh Sandwort

The marsh sandwort (*Arenaria paludicola*) is a state and federal listed Endangered species. It is found in freshwater marsh and swamp habitat. The project site does not have suitable habitat for this species. **This species is not present.**

Pringle's Monardella

The Pringle's monardella (*Monardella pringlei*) is ranked 1A in the CNPS rare plant inventory. It is found on sandy hills of coastal scrub. The project site does not have suitable habitat for the species. **This species is not present.**

Horn's Milk-vetch

The Horn's milk-vetch (*Astragalus hornii* var. *hornii*) is a ranked 1B.1 in the CNPS listed plant inventory. It is found on lake margins and alkali habitat. The project site does not have suitable habitat for this species.

This species is not present.

San Jacinto Valley Crownscale

The San Jacinto Valley crownscale (*Atriplex coronata* var. *notaitor*) is a federally listed Endangered species and ranked 1B.1 in the CNPS rare plant inventory. It is found in alkali playas and vernal pools. There is no habitat for this species on the project site. **This species is not present.**

Nevin's Barberry

The Nevin's barberry (*Berberis nevinii*) is federally and state listed as Endangered and is ranked as 1B.1 in the CNPS rare plant inventory. It is found in chaparral, coastal sage scrub, and riparian scrub. This species blooms from March through May. The project site does not have suitable habitat for this species. **This species is not present.**

Thread-leaved Brodiaea

The thread-leaved brodiaea (*Brodiaea filifolia*) is federally listed Threatened, state listed Endangered, and ranked 1B.1 in the CNPS rare plant inventory. It is found in vernal pool habitat. The project site does not have suitable habitat for this species. **This species is not present.**

Ash-Gray Paintbrush

The ash-gray paintbrush (*Castilleja cinerea*) is a federally listed Threatened and ranked 1B.2 in the CNPS rare plant inventory. It is found in pebble plains, upper montane coniferous forest, Mojavean desert scrub, meadows, pinyon and juniper woodlands. The project site does not have suitable habitat for this species.

This species is not present.

Smooth Tarplant

The smooth tarplant (*Centromadia pungens* ssp. *Laevis*) is ranked 1B.1 in the CNPS rare plant inventory. It is found in valley and foothill grassland, chenopod scrub, meadows and seeps, playas, riparian woodland. The project site does not have suitable habitat for this species. **This species is not present.**

Los Angeles sunflower

The Los Angeles sunflower (*Helianthus nuttallii* ssp. *Parishii*) is ranked 1A in the CNPS rare plant inventory. It is found in marshes and swamps, coastal salt and freshwater environments. The project site does not have suitable habitat for this species. **This species is not present.**

Mesa Horkelia

The mesa horkelia (*Horkelia cuneata* var. *puberula*) is ranked 1B.1 in the CNPS rare plant inventory. It is found on sandy or gravelly sites in chaparral, cismontane woodland, and coastal scrub. The project site does not have suitable habitat for this species. **The species is not present.**

Coulter's Goldfields

The Coulter's goldfields (*Lasthenia glabrata* ssp. *Coulteri*) is ranked 1B.1 in the CNPS rare plant inventory. It is found on alkaline soils in playas, sinks, and grassland. The project site does not have suitable habitat for this species. **This species is not present.**

Parish's Bush-Mallow

The Parish's bush-mallow (*Malacothamnus parishii*) is ranked 1A in the CNPS rare plant inventory. It is found in chaparral and coastal sage scrub. The project site does not have suitable habitat for this species. **This species is not present.**

Slender-Horned Spineflower

The slender-horned spineflower (*Dodecahema leptoceras*) is a federally and state listed Endangered species. It is found in chaparral, cismontane woodland, riparian scrub and coastal scrub. It prefers alluvial fan sage scrub. No habitat for this species is present within the areas that will be impacted by the project activities. **This species is not present.**

Salt Marsh Bird's-Beak

The salt marsh bird's-beak (*Chloropyron maritimum* ssp. *maritimum*) is a federally and state listed Endangered species and is ranked 1B.2 in the CNPS rare plant inventory. It is found in coastal salt marsh habitat at elevations less than 10 meters. Its blooming period is from May to October. The project site does not have suitable habitat for this species. **This species is not present.**

Santa Ana River Woollystar

The Santa Ana River woollystar (*Eriastrum densifolium* ssp. *sanctorum*) is a federally and state listed Endangered species and is ranked 1B.1 in the CNPS rare plant inventory. It is found in washes, floodplains,

and dry riverbeds at elevations less than 500 meters. Its blooming period is from May to September. The project site does not have suitable habitat for this species. **This species is not present.**

Bird-Foot Checkerbloom

The bird-foot checkerbloom (*Sidalcea pedata*) is a federally and state listed Endangered species and is ranked 1B.1 in the CNPS rare plant inventory. It is found in wetlands, including meadows and seeps, pebble plains. Its blooming period is from April to September. The project site does not have suitable habitat for this species. **This species is not present.**

Gambel's Water Cress

The Gambel's water cress (*Nasturtium gambelii*) is a federally listed Endangered species, a state listed Threatened species, and ranked 1B.1 in the CNPS rare plant inventory. It is found in freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. The project site does not have suitable habitat for this species. **This species is not present.**

Parish's Gooseberry

The Parish's gooseberry (*Ribes divaricatum* var. *parishii*) is ranked 1A in the CNPS rare plant inventory. It is found in marshy depressions between ridges in riparian habitats. The project site does not have suitable habitat for this species. **This species is not present.**

4.1.2 Threatened and Endangered Animals

California Red-Legged Frog

The California red-legged frog (*Rana draytonii*) is a federally Threatened species. It is found in lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. The project site does not have suitable habitat for this species. **This species is not present.**

Southern Mountain Yellow-Legged Frog

The southern mountain yellow-legged frog (*Rana mucosa*) is a federally Endangered and state Endangered species. It is found in mountain stream habitats. The project site does not have suitable habitat for this species. **This species is not present.**

Western Yellow-Billed Cuckoo

The western yellow-billed cuckoo (*Coccyzus americanus occidentalis*) is federally listed as Threatened and state listed as Endangered. It is found in riparian habitat with vegetation such as willow and willow-

cottonwood thickets with heavy underbrush. The species is restricted to cottonwood-dominated forests. The project site does not have suitable habitat for this species. **This species is not present.**

Southwestern Willow Flycatcher

The southwestern willow flycatcher (*Empidonax trailii extimus*) is federally and state listed as Endangered. The species breeds in dense riparian habitats along rivers, streams, or other wetlands. Vegetation can be dominated by dense growths of willows, seep willow (*Baccharis* sp.), tamarisk (*Tamarix* sp.) or other large trees. The project site does not have habitat for this species. **This species is not present.**

Bald Eagle

The bald eagle (*Haliaeetus leucocephalus*) is state listed as Endangered and is a delisted federal species. The species is fully protected under the regulations of the CDFW. It is found around wetlands, open water areas with an abundance of fish. It nests and roosts in large trees. There is no habitat for this species on the project site. **The species is not present.**

Coastal California Gnatcatcher

The coastal California gnatcatcher (*Poliophtila californica californica*) is a federally listed Threatened species and CDFW Species of Special Concern. The species range is limited to the California coast and is found only in coastal sage scrub. The project site does not have habitat for this species. **This species is not present.**

Least Bell's Vireo

The least bell's vireo (*Vireo belii pusillus*) is a federally and state listed Endangered species. It is found in riparian forests, riparian scrub, and riparian woodlands. The project site does not have habitat for this species. **This species is not present.**

Riverside Fairy Shrimp

The Riverside fairy shrimp (*Streptocephalus woottoni*) is a federally listed Threatened species. It is found in seasonal pools of water in coastal sage scrub and grasslands. The project site does not have habitat for this species. **This species is not present.**

Santa Ana Sucker

The Santa Ana sucker (*Catostomus santaanae*) is a federally listed Threatened species and CDFW Species of Special Concern. The species is restricted to southern California rivers. There is no habitat for this species on the project site. **The species is not present.**

Delhi Sands Flower-Loving Fly

The Delhi sands flower-loving fly (*Rhaphimidas terminatus abdominalis*) is a federally listed Endangered species. Its habitat is limited to dunes containing sandy soils of the Delhi series. There is no habitat for this species on the project site. **This species is not present.**

San Bernardino Kangaroo Rat

The San Bernardino kangaroo rat (*Dipodomys merriami parvus*) a federally listed Endangered species. Its habitat is limited to alluvial floodplains and adjacent upland habitats typically vegetated by Riversidean alluvial fan sage scrub. The project site does not have suitable habitat for this species. **This species is not present.**

Stephen's Kangaroo Rat

The Stephens' kangaroo rat (*Dipodomys stephensi*) is a federally listed Endangered species and state listed Threatened species. The species is found in coastal sage scrub, and in valley and foothill grasslands. The project site does not have suitable habitat for this species. **This species is not present.**

Southern Rubber Boa

The southern rubber boa (*Charina umbratica*) is a state Threatened and USFS Sensitive Species. It is found in Jeffery pine forests in the vicinity of riparian areas with logs and rocks. The species also needs a duff (plant litter) layer on the forest floor. The project site does not have suitable habitat for this species. **This species is not present.**

Lesser Long-Nosed Bat

The lesser long-nosed bat (*Leptonycteris yerbabuena*) is a federally Endangered species. It roosts in caves in desert grasslands and shrub land. The project site does not have roosting habitat for this species. **This species is not present.**

Burrowing Owl

The burrowing owl (*Athene cunicularia*) is a CDFW Species of Special Concern. It is found in dry open areas with no trees and short grass. The non-native vegetation dominate fields on the north and east part of the project site may have habitat. **This species has a potential to be present.**

Coast Horned lizard

The coast horned lizard (*Phrynosoma blainvillii*) is a CDFW Species of Special Concern. It is found in open areas for sunning, bushes for cover and patches of loose soil for burial. The non-native vegetation

dominant fields on the north and east part of the project site may have suitable habitat for this species. **This species has a potential to be present.**

San Diego Black-Tailed Jackrabbit

The San Diego black-tailed jackrabbit (*Lepus californicus bennettii*) is a CDFW Species of Special Concern. It is found in coastal sage scrub and grassy fields in Southern California. The non-native vegetation dominant fields on the north and east part of the project site may have habitat. **This species has a potential to be present.**

Tricolored Blackbird

The tricolored blackbird (*Agelaius tricolor*) is a state listed Candidate species. It is found in freshwater marsh, marsh and swamp, swamp, and wetland. This species requires open water and protected nesting substrate. This site does not have suitable habitat for this species. **This species is not present.**

Swainson's Hawk

The Swainson's hawk (*Buteo swainsoni*) is a state listed threatened species. It is found in Great Basin grassland, riparian forest, riparian woodland, and valley and foothill grassland. This species requires adjacent suitable foraging areas such as grasslands, alfalfa, or grain fields supporting rodent populations. This site surrounded by development and does not provide suitable nesting habitat for this species. **This species is not present.**

4.2 Species with other Special Status Listings

Species which are listed as California Species of Special Concern, or are not on the CDFW List of Rare plants have all been evaluated and the results can be reviewed in Appendix B to this report. Any of these species which are present, or have a potential to occur on the project area will have mitigation measures to avoid or minimize impacts in the Recommendations section of this report.

4.3 Critical Habitats

The project site is not within or adjacent to any federal critical habitat for endangered species.

4.4 Nesting Birds

The project site contains landscaped areas and open ruderal fields that can be used by nesting song birds during the nesting bird season of February 1 to September 15.

4.5 Wildlife Movement Corridors

The project site does not have any areas that can be considered wildlife movement corridors. The project site is surrounded by residential development to the south and disturbed, agricultural lands to the north, east, and west.

4.6 City, County, Regional, State, or Federal Conservation Plans

The project site is not within any state or federal Habitat Conservation Plans or Habitat Conservation Plans.

4.7 State and Federal Jurisdictional Drainages

No CDFW jurisdictional streams or associated riparian habitat occur on the site. In addition, no waters of the United States or wetlands occur on the project site. Further, no vernal pools are located on the project site.

5.0 Project Impacts

5.1 Impacts to Existing Habitats

Implementation of the proposed project will impact 25.3 acres of developed commercial buildings and associated pavements, and landscaping, and 13 acres of ruderal fields dominated by non-native plants.

5.2 Impacts to Sensitive Species

The species discussed below have the potential to be impacted by project activities.

Coast Horned lizard

Coast Horned Lizard (*Phrynosoma blainvillii*) is a CDFW Species of Special Concern. It is found in open areas for sunning, bushes for cover and patches of loose soil for burial. The non-native vegetation dominant fields on the north and east part of the project site may have habitat. Project activities have potential to impact this species.

Burrowing Owl

Burrowing owl (*Athene cunicularia*) is a CDFW Species of Special Concern. The species lives in dry open areas with no trees and short grass. Project activities have potential to disturb this species. A protocol burrowing owl survey is recommended to determine the presence and use of the site by burrowing owls

San Diego Black-Tailed Jackrabbit

San Diego black-tailed jackrabbit is a CDFW Species of Special Concern. It is found in coastal sage scrub habitats in Southern California. The non-native vegetation dominant fields on the north and east part of the project site may have habitat. Project activities have potential to impact this species.

5.3 Impacts to Nesting Birds

The project site contains landscaped areas and open ruderal fields that can be used by nesting song birds during the nesting bird season of February 1 to September 15. If project activities will remove vegetation or buildings during the nesting season, nesting birds have a potential to be impacted.

5.4 Impacts to Critical Habitat

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

5.5 Impacts to Wildlife Movement Corridors

No impacts to wildlife movement corridors are anticipated.

5.6 Conflict with Local Policies or Ordinances Protecting Biological Resources

If the proposed project activities result in the removal of trees, compliance with the City's ordinances for the removal of public native or landmark trees.

5.7 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 site is not within any state or federal Habitat Conservation Plans or Habitat Conservation Plans. No impacts to any NCCP's or HCP's are anticipated.

6.0 Recommendations

In order to mitigate any potential impacts from project activities, the project should incorporate the following recommendations.

6.1 Sensitive Species

- Burrowing owl (*Athene cunicularia*) is a CDFW Species of Special Concern. Protocol burrowing owl surveys are recommended to determine the presence and use of the site by burrowing owls.

- A biological monitor will be present during ground disturbing activities to avoid direct impacts to coast horned lizard and black-tailed jack rabbit.

6.2 Nesting birds

- It is recommended that vegetation removal be conducted outside of the nesting season for migratory birds to avoid direct impacts. The migratory bird 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 pre-construction 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.

7.0 Certification

“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 06-29-2017 Signed _____

PROJECT MANAGER

Fieldwork Performed By:

Juan Jose Hernandez

PRINCIPAL BIOLOGIST

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FIGURES

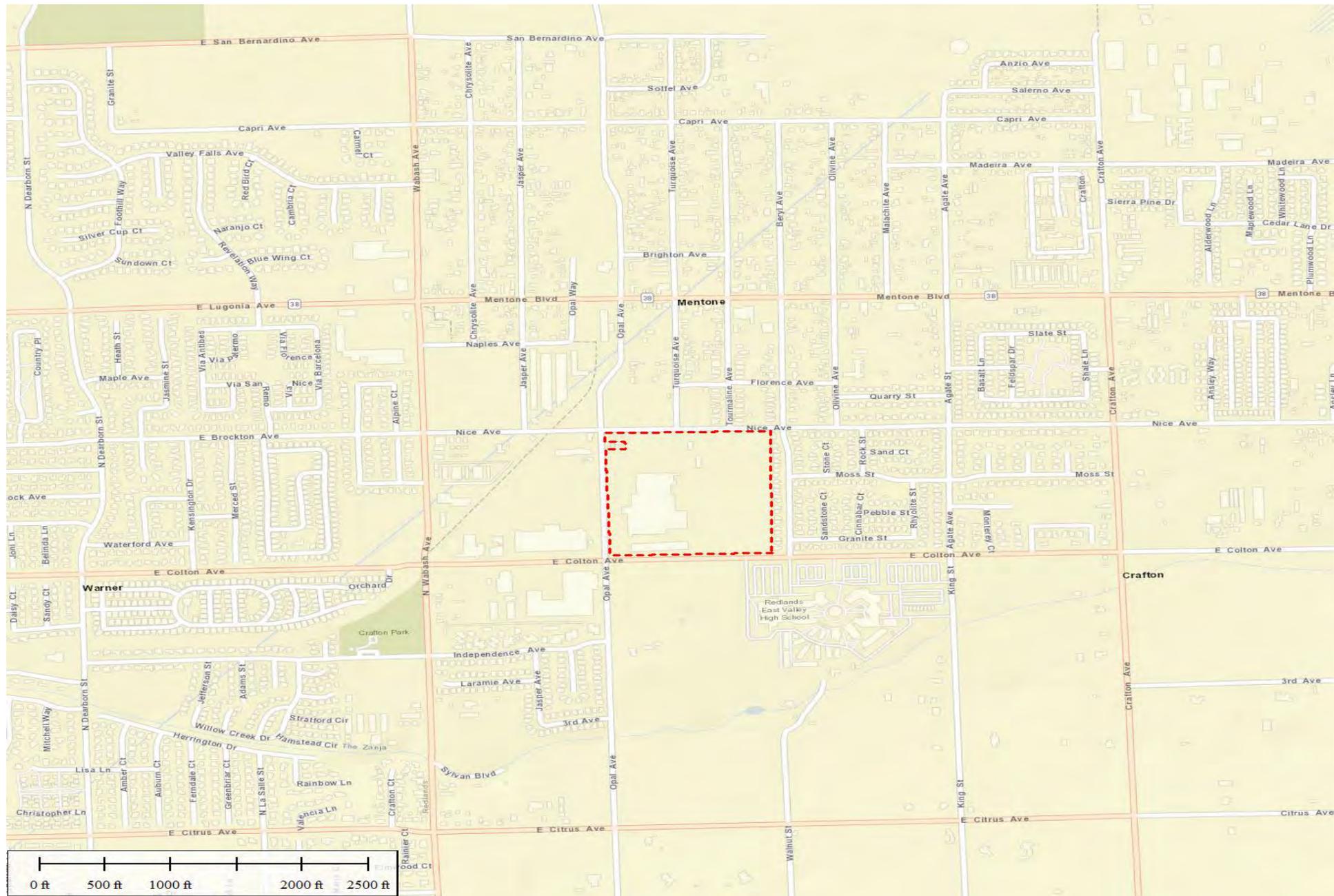


Figure 1
 Location Map
 APN 0298-063-07
 San Bernardino County, California

Legend
 Project Location



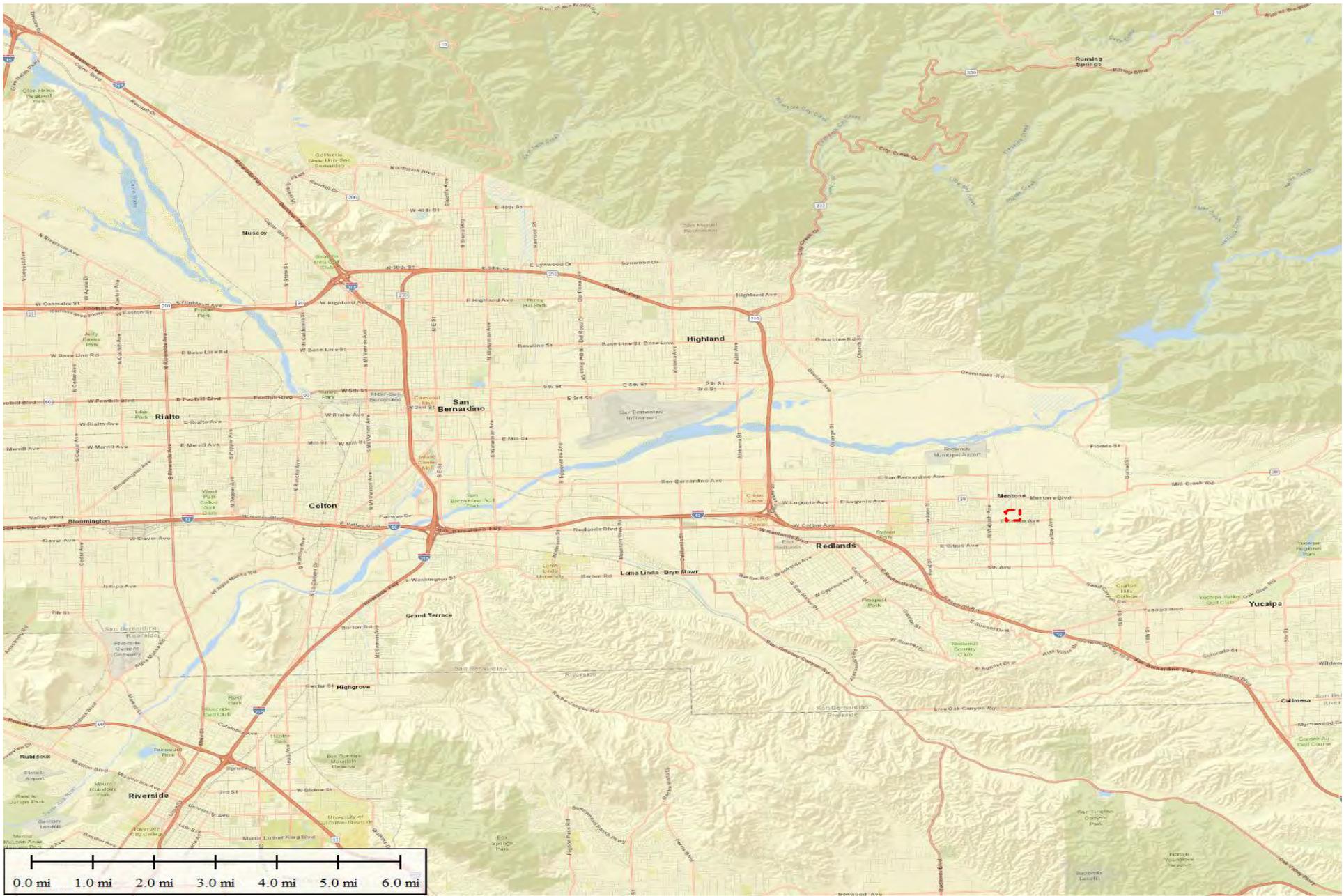


Figure 2
 Vicinity Map
 APN 0298-063-07
 San Bernardino County, California

Legend
 Project Location



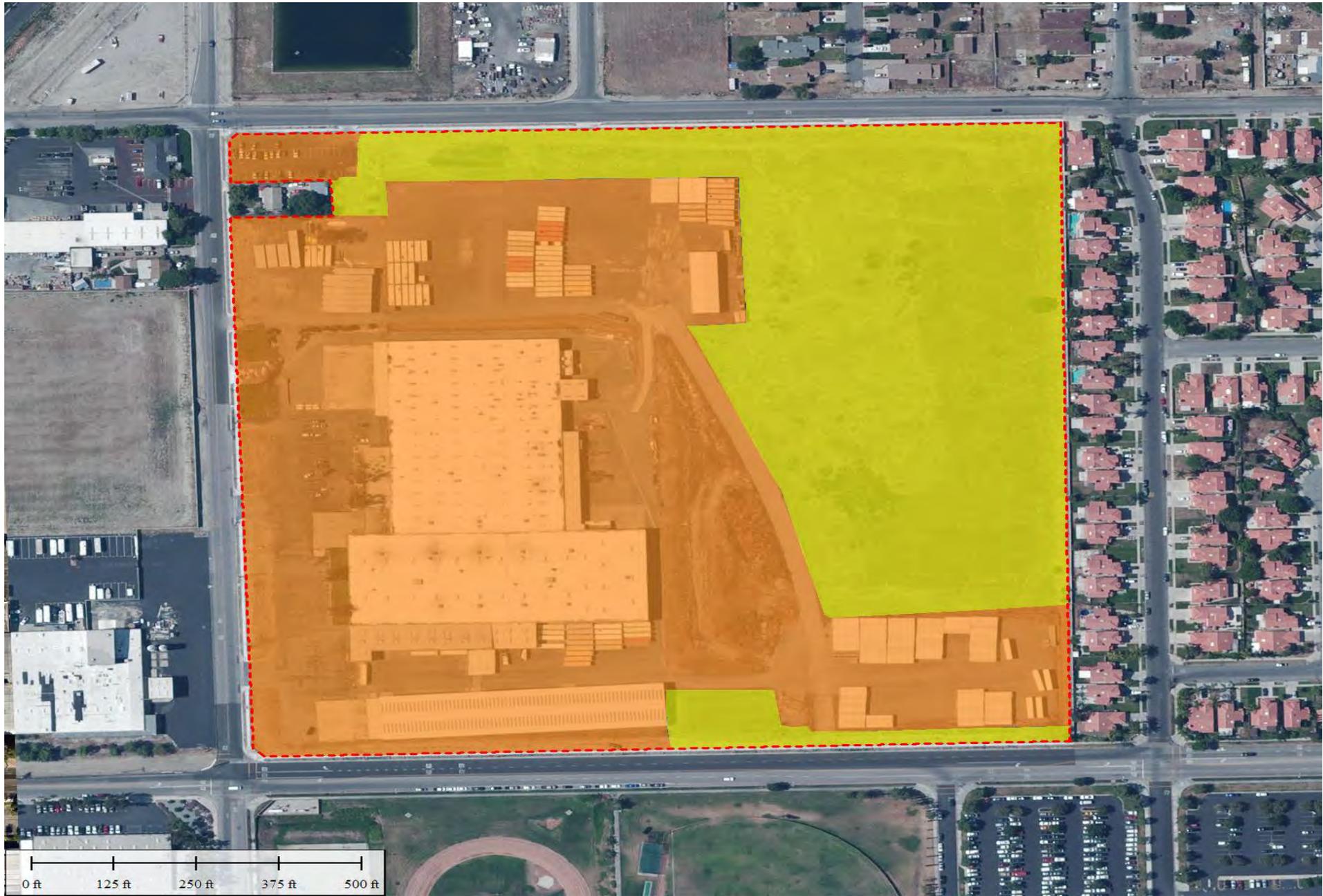


Figure 4
 Habitat Map
 APN 0298-063-07
 San Bernardino County, California

Legend

-  Property Boundary
-  25.3 Acres of Developed
-  13 Acres of Ruderal Habitat



APPENDIX A

Species List

Plant List

<i>Amaranthus albus</i>	Tumbleweed
<i>Ambrosia psilostachya</i>	Western ragweed
<i>Amsinckia intermedia</i>	Common fiddleneck
<i>Avena barbata</i>	Slim oats
<i>Brassica nigra</i>	Black mustard
<i>Bromus diandrus</i>	Rip gut Brome
<i>Bromus madritensis ssp. Rubens</i>	Foxtail brome
<i>Chamaesyce prostrata</i>	Prostrate spurge
<i>Chenopodium murale</i>	Goosefoot
<i>Datura stramonium</i>	Jimson weed
<i>Erigeron canadensis</i>	Horseweed
<i>Eriogonum fasciculatum</i>	California buckwheat
<i>Helianthus annuus</i>	Sunflower
<i>Heterotheca grandiflora</i>	Telegraph weed
<i>Hirschfeldia incana</i>	Mustard
<i>Nicotina glauca</i>	Tree tobacco
<i>Opuntia xoccidentalis</i>	Western prickly pear
<i>Salsola tragus</i>	Russian thistle
<i>Sambucus mexicana</i>	Mexican elderberry
<i>Schimus barbata</i>	Schimus
<i>Sonchus oleraceus</i>	Sow thistle
<i>Tamarix spp.</i>	Tamarisk

Animal List

Canis latrans

Coyote

Corvus corax

Raven

Haemorhous mexicanus

House finch

Corvus brachyrhynchos

American crow

Otospermophilus beecheyi

California ground squirrel

Passer domesticus

House finch

Sayornis nigricans

Black phoebe

Sceloporus occidentalis

Western fence lizard

Sylvilagus audubonii

Desert cottontail

Thomomys bottae

Botta's pocket gopher

Tyrannus verticalis

Western kingbird

Zenaida doves

Mourning dove

APPENDIX B

Scientific Name	Common Name	Federal Listing	State Listing	CNPS	OthrStatus	GenHab	Micro Habitat	Presence/Absence
<i>Allium howellii</i> var. <i>clokeyi</i>	Mt. Pinos onion	None	None	1B.3	SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	Great Basin scrub, pinyon and juniper woodland, meadows and seeps (edges). Blooms April-June	1385-1800 m.	No habitat for this species present. Not present.
<i>Arenaria paludicola</i>	marsh sandwort	Endangered	Endangered	1B.1	SB_SBBG-Santa Barbara Botanic Garden	Marshes and swamps. Blooms May-August	Growing up through dense mats of Typha, Juncus, Scirpus, etc. in freshwater marsh. Sandy soil. 3-170 m.	No habitat for this species present. Not present.
<i>Astragalus hornii</i> var. <i>hornii</i>	Horn's milk-vetch	None	None	1B.1	BLM_S-Sensitive	Meadows and seeps, playas. Blooms May-October	Lake margins, alkaline sites. 75-350 m.	No habitat for this species present. Not present.
<i>Atriplex coronata</i> var. <i>notatior</i>	San Jacinto Valley crownscale	Endangered	None	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Playas, valley and foothill grassland, vernal pools. Blooms April-August	Alkaline areas in the San Jacinto River Valley. 380-460 m.	No habitat for this species present. Not present.
<i>Atriplex serenana</i> var. <i>davidsonii</i>	Davidson's saltscale	None	None	1B.2		Coastal bluff scrub, coastal scrub. Blooms April-October	Alkaline soil. 0-460 m.	No habitat for this species present. Not present.
<i>Berberis nevini</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. Blooms March-June	On steep, N-facing slopes or in low grade sandy washes. 290-1575 m.	No habitat for this species present. Not present.
<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. Blooms March-June	Usually associated with annual grassland and vernal pools; often surrounded by shrubland habitats. Occurs in openings on clay soils. 15-1020 m.	No habitat for this species present. Not present.
<i>California macrophylla</i>	round-leaved filaree	None	None	1B.2	BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden	Cismontane woodland, valley and foothill grassland. Blooms March-May	Clay soils. 15-1200 m.	No habitat for this species present. Not present.
<i>Calochortus palmeri</i> var. <i>palmeri</i>	Palmer's mariposa-lily	None	None	1B.2	BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	Meadows and seeps, chaparral, lower montane coniferous forest. Blooms April-July	Vernally moist places in yellow-pine forest, chaparral. 485-2500 m.	No habitat for this species present. Not present.

Scientific Name	Common Name	Federal Listing	State Listing	CNPS	OthrStatus	GenHab	Micro Habitat	Presence/Absence
<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. Blooms May-July	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 present. Not present.
Canyon Live Oak Ravine Forest	Canyon Live Oak Ravine Forest	None	None					Not present.
<i>Carex comosa</i>	bristly sedge	None	None	2B.1		Marshes and swamps, coastal prairie, valley and foothill grassland. Blooms May-September	Lake margins, wet places; site below sea level is on a Delta island. -5-1620 m.	No habitat for this species present. Not present.
<i>Castilleja cinerea</i>	ash-gray paintbrush	Threatened	None	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Pebble plains, upper montane coniferous forest, Mojavean desert scrub, meadows, pinyon and juniper woodland. Blooms June-August	Endemic to the San Bernardino Mountains, in clay openings; often in meadow edges. 725-2745 m.	No habitat for this species present. Not present.
<i>Castilleja lasiorhyncha</i>	San Bernardino Mountains owl's-clover	None	None	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	Meadows and seeps, pebble plain, upper montane coniferous forest, chaparral, riparian woodland. Blooms May-August	Mesic to drying soils in open areas of stream and meadow margins or in vernal wet areas. 1140-2320 m.	No habitat for this species present. Not present.
<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. Blooms April-September	Alkali meadow, alkali scrub; also in disturbed places. 5-1170 m.	No habitat for this species present. Not present.
<i>Chloropyron maritimum</i> ssp. <i>maritimum</i>	salt marsh bird's-beak	Endangered	Endangered	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden	Marshes and swamps, coastal dunes. Blooms May-October	Limited to the higher zones of salt marsh habitat. 0-10 m.	No habitat for this species present. Not present.
<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. Blooms April-June	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 present. Not present.

Scientific Name	Common Name	Federal Listing	State Listing	CNPS	OthrStatus	GenHab	Micro Habitat	Presence/Absence
<i>Chorizanthe xanti</i> var. <i>leucotheca</i>	white-bracted spineflower	None	None	1B.2	BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden SB_USDA-US Dept of Agriculture USFS_S-Sensitive	Mojavean desert scrub, pinyon and juniper woodland, coastal scrub (alluvial fans). Blooms April-June	Sandy or gravelly places. 365-1830 m.	No habitat for this species present. Not present.
<i>Cuscuta obtusiflora</i> var. <i>glandulosa</i>	Peruvian dodder	None	None	2B.2		Marshes and swamps (freshwater). Blooms July- October	Freshwater marsh. 15-280 m.	No habitat for this species present. Not present.
<i>Dodecahema</i> <i>leptoceras</i>	slender-horned spineflower	Endangered	Endangered	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, cismontane woodland, coastal scrub (alluvial fan sage scrub). Blooms April-July	Flood deposited terraces and washes; associates include <i>Encelia</i> , <i>Dalea</i> , <i>Lepidospartum</i> , etc. Sandy soils. 200-765 m.	No habitat for this species present. Not present.
<i>Eriastrum</i> <i>densifolium</i> ssp. <i>sanctorum</i>	Santa Ana River woollystar	Endangered	Endangered	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Coastal scrub, chaparral. Blooms May-September	In sandy soils on river floodplains or terraced fluvial deposits. 180-700 m.	No habitat for this species present. Not present.
<i>Fimbristylis</i> <i>thermalis</i>	hot springs <i>fimbristylis</i>	None	None	2B.2		Meadows and seeps (alkaline). Blooms July- September	Near hot springs. 115-1585 m.	No habitat for this species present. Not present.
<i>Galium</i> <i>californicum</i> ssp. <i>primum</i>	Alvin Meadow bedstraw	None	None	1B.2	BLM_S-Sensitive USFS_S-Sensitive	Chaparral, lower montane coniferous forest. Blooms May-July	Grows in shade of trees and shrubs at the lower edge of the pine belt, in pine forest- chaparral ecotone. Granitic, sandy soils. 1350-1700 m.	No habitat for this species present. Not present.
<i>Helianthus nuttallii</i> ssp. <i>parishii</i>	Los Angeles sunflower	None	None	1A		Marshes and swamps (coastal salt and freshwater). Blooms August- October	10-1524 m.	No habitat for this species present. Not present.
<i>Heuchera parishii</i>	Parish's alumroot	None	None	1B.3	SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S- Sensitive	Lower montane coniferous forest, subalpine coniferous forest, upper montane coniferous forest, alpine boulder & rock field. Blooms June-August	Rocky places. Sometimes on carbonate. 1340- 3505 m.	No habitat for this species present. Not present.
<i>Horkelia cuneata</i> var. <i>puberula</i>	mesa horkelia	None	None	1B.1	USFS_S-Sensitive	Chaparral, cismontane woodland, coastal scrub. Blooms February-July	Sandy or gravelly sites. 15-1645 m.	No habitat for this species present. Not present.

Scientific Name	Common Name	Federal Listing	State Listing	CNPS	OthrStatus	GenHab	Micro Habitat	Presence/Absence
<i>Imperata brevifolia</i>	California satintail	None	None	2B.1	SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	Coastal scrub, chaparral, riparian scrub, Mojavean desert scrub, meadows and seeps (alkali), riparian scrub. Blooms September-May	Mesic sites, alkali seeps, riparian areas. 3-1495 m.	No habitat for this species present. Not present.
<i>Ivesia argyrocoma</i> var. <i>argyrocoma</i>	silver-haired ivesia	None	None	1B.2	SB_RSABG-Rancho Santa Ana Botanic Garden USFS_S-Sensitive	Meadows, pebble plains, upper montane coniferous forest. Blooms July-August	In pebble plains and meadows with other rare plants. 1460-2960 m.	No habitat for this species present. Not present.
<i>Lasthenia glabrata</i> ssp. <i>coulteri</i>	Coulter's goldfields	None	None	1B.1	BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden	Coastal salt marshes, playas, vernal pools. Blooms February-June	Usually found on alkaline soils in playas, sinks, and grasslands. 1-1375 m.	No habitat for this species present. Not present.
<i>Lepidium virginicum</i> var. <i>robinsonii</i>	Robinson's peppergrass	None	None	4.3		Chaparral, coastal scrub. Blooms January-July	Dry soils, shrubland. 4-1435 m.	No habitat for this species present. Not present.
<i>Lilium parryi</i>	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. Blooms July-August	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 present. Not present.
<i>Lycium parishii</i>	Parish's desert-thorn	None	None	2B.3		Coastal scrub, Sonoran desert scrub. Blooms May-April	135-1000 m.	No habitat for this species present. Not present.
<i>Malacothamnus parishii</i>	Parish's bush-mallow	None	None	1A		Chaparral, coastal sage scrub. Blooms April-July	In a wash. 305-455 m.	No habitat for this species present. Not present.
<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	Broadleaved upland forest, chaparral, lower montane coniferous forest, cismontane woodland, valley and foothill grassland. Blooms June-October	Dry slopes and ridges in openings. 700-1770 m.	No habitat for this species present. Not present.
<i>Monardella pringlei</i>	Pringle's monardella	None	None	1A		Coastal scrub. Blooms May-June	Sandy hills. 300-400 m.	No habitat for this species present. Not present.
<i>Nama stenocarpa</i>	mud nama	None	None	2B.2		Marshes and swamps. Blooms January-July	Lake shores, river banks, intermittently wet areas. 5-500 m.	No habitat for this species present. Not present.

Scientific Name	Common Name	Federal Listing	State Listing	CNPS	OthrStatus	GenHab	Micro Habitat	Presence/Absence
<i>Nasturtium gambelii</i>	Gambel's water cress	Endangered	Threatened	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden	Marshes and swamps. Blooms April-October	Freshwater and brackish marshes at the margins of lakes and along streams, in or just above the water level. 5-330 m.	No habitat for this species present. Not present.
<i>Packera bernardina</i>	San Bernardino ragwort	None	None	1B.2	USFS_S-Sensitive	Meadows and seeps, pebble plains, upper montane coniferous forest. Blooms May-July	Mesic, sometimes alkaline meadows, and dry rocky slopes. 1615-2470 m.	No habitat for this species present. Not present.
<i>Perideridia parishii</i> ssp. <i>parishii</i>	Parish's yampah	None	None	2B.2		Lower montane coniferous forest, meadows, upper montane coniferous forest. Blooms June-August	Damp meadows or along streambeds-prefers an open pine canopy. 1465-3000 m.	No habitat for this species present. Not present.
<i>Ribes divaricatum</i> var. <i>parishii</i>	Parish's gooseberry	None	None	1A		Riparian woodland. Blooms February-April	Salix swales in riparian habitats. 65-300 m.	No habitat for this species present. Not present.
Riversidian Alluvial Fan Sage Scrub	Riversidian Alluvial Fan Sage Scrub	None	None					Not present.
<i>Schoenus nigricans</i>	black bog-rush	None	None	2B.2	USFS_S-Sensitive	Marshes and swamps. Blooms August-September	Often in alkaline marshes. 150-2000 m.	No habitat for this species present. Not present.
<i>Sidalcea hickmanii</i> ssp. <i>parishii</i>	Parish's checkerbloom	None	Rare	1B.2	BLM_S-Sensitive SB_RSABG-Rancho Santa Ana Botanic Garden SB_SBBG-Santa Barbara Botanic Garden USFS_S-Sensitive	Chaparral, cismontane woodland, lower montane coniferous forest. Blooms June-August	Disturbed burned or cleared areas on dry, rocky slopes, in fuel breaks & fire roads along the mountain summits. 1095-2135 m.	No habitat for this species present. Not present.
<i>Sidalcea malviflora</i> ssp. <i>dolosa</i>	Bear Valley checkerbloom	None	None	1B.2	USFS_S-Sensitive	Meadows and seeps, riparian woodland, lower montane coniferous forest, upper montane coniferous forest. Blooms May-April	Known from wet areas within forested habitats. Affected by hydrological changes. 1575-2590 m.	No habitat for this species present. Not present.
<i>Sidalcea neomexicana</i>	Salt Spring checkerbloom	None	None	2B.2	USFS_S-Sensitive	Playas, chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub. Blooms May-June	Alkali springs and marshes. 0-1530 m.	No habitat for this species present. Not present.

Scientific Name	Common Name	Federal Listing	State Listing	CNPS	OthrStatus	GenHab	Micro Habitat	Presence/Absence
<i>Sidalcea pedata</i>	bird-foot checkerbloom	Endangered	Endangered	1B.1	SB_RSABG-Rancho Santa Ana Botanic Garden	Meadows and seeps, pebble plains. Blooms May-August	Vernally mesic sites in meadows or pebble plains. 1840-2305 m.	No habitat for this species present. Not present.
Southern Coast Live Oak Riparian Forest	Southern Coast Live Oak Riparian Forest	None	None					Not present.
Southern Cottonwood Willow Riparian Forest	Southern Cottonwood Willow Riparian Forest	None	None					Not present.
Southern Mixed Riparian Forest	Southern Mixed Riparian Forest	None	None					Not present.
Southern Riparian Forest	Southern Riparian Forest	None	None					Not present.
Southern Riparian Scrub	Southern Riparian Scrub	None	None					Not present.
Southern Sycamore Alder Riparian Woodland	Southern Sycamore Alder Riparian Woodland	None	None					Not present.
Southern Willow Scrub	Southern Willow Scrub	None	None					Not present.
<i>Sphenopholis obtusata</i>	prairie wedge grass	None	None	2B.2		Cismontane woodland, meadows and seeps. Blooms April-July	Open moist sites, along rivers and springs, alkaline desert seeps. 300-2000 m.	No habitat for this species present. Not present.
<i>Streptanthus bernardinus</i>	Laguna Mountains jewelflower	None	None	4.3	SB_RSABG-Rancho Santa Ana Botanic Garden	Chaparral, lower montane coniferous forest. Blooms May-August	Clay or decomposed granite soils; sometimes in disturbed areas such as streambanks or roadcuts. 1440-2500 m.	No habitat for this species present. Not present.
<i>Streptanthus campestris</i>	southern jewelflower	None	None	1B.3	BLM_S-Sensitive USFS_S-Sensitive	Chaparral, lower montane coniferous forest, pinyon-juniper woodland. Blooms May-July	Open, rocky areas. 900-2300 m.	No habitat for this species present. Not present.
<i>Symphotrichum defoliatum</i>	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. Blooms July-November	Vernally mesic grassland or near ditches, streams and springs; disturbed areas. 2-2040 m.	No habitat for this species present. Not present.
<i>Thelypteris puberula</i> var. <i>sonorensis</i>	Sonoran maiden fern	None	None	2B.2	USFS_S-Sensitive	Meadows and seeps. Blooms January-September	Along streams, seepage areas. 50-610 m.	No habitat for this species present. Not present.

Scientific Name	Common Name	Federal Listing	State Listing	CNPS	OthrStatus	GenHab	Micro Habitat	Presence/Absence
Trichocoronis wrightii var. wrightii	Wright's trichocoronis	None	None	2B.1		Marshes and swamps, riparian forest, meadows and seeps, vernal pools. Blooms May-September	Mud flats of vernal lakes, drying river beds, alkali meadows. 5-435 m.	No habitat for this species present. Not present.

Scientific Name	Common Name	Federal	State	Other Status	Habitats	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	Nest sites mainly in riparian growths of deciduous trees, as in canyon bottoms on river floodplains; also, live oaks.	No habitat for this species is present. Not present.
Agelaius tricolor	tricolored blackbird	None	Candidate Endangered	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	Requires open water, protected nesting substrate, and foraging area with insect prey within a few km of the colony.	No habitat for this species is present. Not present.
Aimophila ruficeps canescens	southern California rufous-crowned sparrow	None	None	CDFW_WL-Watch List	Chaparral Coastal scrub	Frequents relatively steep, often rocky hillsides with grass and forb patches.	No habitat for this species is present. Not present.
Anniella pulchra pulchra	silvery legless lizard	None	None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	Chaparral Coastal dunes Coastal scrub	Soil moisture is essential. they prefer soils with a high moisture content.	No habitat for this species is present. Not present.
Antrozous pallidus	pallid bat	None	None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFS_S-Sensitive WBWG_H-High Priority	Chaparral Coastal scrub Desert wash Great Basin grassland Great Basin scrub Mojavean desert scrub Riparian woodland Sonoran desert scrub Upper montane coniferous forest Valley & foothill grassland	Roosts must protect bats from high temperatures. Very sensitive to disturbance of roosting sites.	No habitat for this species is present. Not present.

Scientific Name	Common Name	Federal	State	Other Status	Habitats	MicroHab	Presence/Absence
<i>Aquila chrysaetos</i>	golden eagle	None	None	BLM_S-Sensitive CDF_S-Sensitive CDFW_FP-Fully Protected CDFW_WL-Watch List IUCN_LC-Least Concern USFWS_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	Cliff-walled canyons provide nesting habitat in most parts of range; also, large trees in open areas.	No habitat for this species is present. Not present.
<i>Arizona elegans occidentalis</i>	California glossy snake	None	None	CDFW_SSC-Species of Special Concern		Generalist reported from a range of scrub and grassland habitats, often with loose or sandy soils.	No habitat for this species is present. Not present.
<i>Artemisiospiza belli belli</i>	Bell's sage sparrow	None	None	CDFW_WL-Watch List USFWS_BCC-Birds of Conservation Concern	Chaparral Coastal scrub	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 is present. Not present.
<i>Aspidoscelis hyperythra</i>	orange-throated whiptail	None	None	CDFW_WL-Watch List IUCN_LC-Least Concern USFS_S-Sensitive	Chaparral Cismontane woodland Coastal scrub	Prefers washes and other sandy areas with patches of brush and rocks. Perennial plants necessary for its major food: termites.	No habitat for this species is present. Not present.
<i>Aspidoscelis tigris stejnegeri</i>	coastal whiptail	None	None	CDFW_SSC-Species of Special Concern		Ground may be firm soil, sandy, or rocky.	No habitat for this species is present. Not present.
<i>Athene cucularia</i>	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	Subterranean nester, dependent upon burrowing mammals, most notably, the California ground squirrel.	The non-native vegetation dominant fields on the north and east part of the property may have habitat. Potential to be present.
<i>Batrachoseps gabrieli</i>	San Gabriel slender salamander	None	None	IUCN_DD-Data Deficient USFS_S-Sensitive	Talus slope	Most active on the surface in winter and early spring.	No habitat for this species is present. Not present.

Scientific Name	Common Name	Federal	State	Other Status	Habitats	MicroHab	Presence/Absence
Bombus crotchii	Crotch bumble bee	None	None			Food plant genera include Antirrhinum, Phacelia, Clarkia, Dendromecon, Eschscholzia, and Eriogonum.	No habitat for this species is present. Not present.
Bombus morrisoni	Morrison bumble bee	None	None	IUCN_VU-Vulnerable		Food plant genera include Cirsium, Cleome, Helianthus, Lupinus, Chrysothamnus, and Melilotus.	No habitat for this species is present. Not present.
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	Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles.	No habitat for this species is present. Not present.
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	Requires adjacent suitable foraging areas such as grasslands, or alfalfa or grain fields supporting rodent populations.	No habitat for this species is present. Not present.
Carolella busckana	Busck's gallmoth	None	None		Coastal dunes Coastal scrub		No habitat for this species is present. Not present.
Catostomus santaanae	Santa Ana sucker	Threatened	None	AFS_TH-Threatened IUCN_VU-Vulnerable	Aquatic South coast flowing waters	Habitat generalists, but prefer sand-rubble-boulder bottoms, cool, clear water, and algae.	No habitat for this species is present. Not present.
Ceratochrysis longimala	Desert cuckoo wasp	None	None				No habitat for this species is present. Not present.
Chaetodipus fallax fallax	northwestern San Diego pocket mouse	None	None	CDFW_SSC-Species of Special Concern	Chaparral Coastal scrub	Sandy, herbaceous areas, usually in association with rocks or coarse gravel.	No habitat for this species is present. Not present.
Charina umbratica	southern rubber boa	None	Threatened	USFS_S-Sensitive	Meadow & seep Riparian forest Riparian woodland Upper montane coniferous forest Wetland	Found in vicinity of streams or wet meadows; requires loose, moist soil for burrowing; seeks cover in rotting logs, rock outcrops, and under surface litter.	No habitat for this species is present. Not present.

Scientific Name	Common Name	Federal	State	Other Status	Habitats	MicroHab	Presence/Absence
<i>Coccyzus americanus occidentalis</i>	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	Nests in riparian jungles of willow, often mixed with cottonwoods, with lower story of blackberry, nettles, or wild grape.	No habitat for this species is present. Not present.
<i>Coleonyx variegatus abbotti</i>	San Diego banded gecko	None	None	CDFW_SSC-Species of Special Concern	Chaparral Coastal scrub	Found in granite or rocky outcrops in coastal scrub and chaparral habitats.	No habitat for this species is present. Not present.
<i>Crotalus ruber</i>	red-diamond rattlesnake	None	None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	Chaparral Mojavean desert scrub Sonoran desert scrub	Occurs in rocky areas and dense vegetation. Needs rodent burrows, cracks in rocks or surface cover objects.	No habitat for this species is present. Not present.
<i>Diadophis punctatus modestus</i>	San Bernardino ringneck snake	None	None	USFS_S-Sensitive		Avoids moving through open or barren areas by restricting movements to areas of surface litter or herbaceous veg.	No habitat for this species is present. Not present.
<i>Dipodomys merriami parvus</i>	San Bernardino kangaroo rat	Endangered	None	CDFW_SSC-Species of Special Concern	Coastal scrub	Needs early to intermediate seral stages.	No habitat for this species is present. Not present.
<i>Dipodomys stephensi</i>	Stephens' kangaroo rat	Endangered	Threatened	IUCN_EN-Endangered	Coastal scrub Valley & foothill grassland	Prefers buckwheat, chamise, brome grass and filaree. Will burrow into firm soil.	No habitat for this species is present. Not present.
<i>Elanus leucurus</i>	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	Open grasslands, meadows, or marshes for foraging close to isolated, dense-topped trees for nesting and perching.	No habitat for this species is present. Not present.
<i>Empidonax traillii extimus</i>	southwestern willow flycatcher	Endangered	Endangered	NABCI_RWL-Red Watch List	Riparian woodland		No habitat for this species is present. Not present.

Scientific Name	Common Name	Federal	State	Other Status	Habitats	MicroHab	Presence/Absence
<i>Emys marmorata</i>	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	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 is present. Not present.
<i>Eremophila alpestris actia</i>	California horned lark	None	None	CDFW_WL-Watch List IUCN_LC-Least Concern	Marine intertidal & splash zone communities Meadow & seep	Short-grass prairie, "bald" hills, mountain meadows, open coastal plains, fallow grain fields, alkali flats.	No habitat for this species is present. Not present.
<i>Euchloe hyantis andrewsi</i>	Andrew's marble butterfly	None	None		Lower montane coniferous forest	Hostplants are <i>Streptanthus bernardinus</i> & <i>Arabis holboellii</i> var <i>pinetorum</i> ; larval foodplant is <i>Descurainia richardsonii</i> .	No habitat for this species is present. Not present.
<i>Eumops perotis californicus</i>	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	Roosts in crevices in cliff faces, high buildings, trees and tunnels.	No habitat for this species is present. Not present.
<i>Falco columbarius</i>	merlin	None	None	CDFW_WL-Watch List IUCN_LC-Least Concern	Estuary Great Basin grassland Valley & foothill grassland	Clumps of trees or windbreaks are required for roosting in open country.	No habitat for this species is present. Not present.
<i>Gila orcuttii</i>	arroyo chub	None	None	AFS_VU-Vulnerable CDFW_SSC-Species of Special Concern USFS_S-Sensitive	Aquatic South coast flowing waters	Slow water stream sections with mud or sand bottoms. Feeds heavily on aquatic vegetation and associated invertebrates.	No habitat for this species is present. Not present.
<i>Glaucomys sabrinus californicus</i>	San Bernardino flying squirrel	None	None	CDFW_SSC-Species of Special Concern USFS_S-Sensitive	Broadleaved upland forest Lower montane coniferous forest	Needs cavities in trees/snags for nests and cover. Needs nearby water.	No habitat for this species is present. Not present.

Scientific Name	Common Name	Federal	State	Other Status	Habitats	MicroHab	Presence/Absence
<i>Haliaeetus leucocephalus</i>	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	Nests in large, old-growth, or dominant live tree with open branches, especially ponderosa pine. Roosts communally in winter.	No habitat for this species is present. Not present.
<i>Icteria virens</i>	yellow-breasted chat	None	None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	Riparian forest Riparian scrub Riparian woodland	Nests in low, dense riparian, consisting of willow, blackberry, wild grape; forages and nests within 10 ft of ground.	No habitat for this species is present. Not present.
<i>Lampropeltis zonata (parvirubra)</i>	California mountain kingsnake (San Bernardino population)	None	None	BLM_S-Sensitive CDFW_WL-Watch List IUCN_LC-Least Concern USFS_S-Sensitive	Chaparral Lower montane coniferous forest Talus slope	Well-lit canyons with rocky outcrops or rocky talus.	No habitat for this species is present. Not present.
<i>Lanius ludovicianus</i>	loggerhead shrike	None	None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern USFWS_BCC-Birds of Conservation Concern	Broadleaved upland forest Desert wash Joshua tree woodland Mojavean desert scrub Pinon & juniper woodlands Riparian woodland Sonoran desert scrub	Prefers open country for hunting, with perches for scanning, and fairly dense shrubs and brush for nesting.	No habitat for this species is present. Not present.
<i>Lasiurus xanthinus</i>	western yellow bat	None	None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern WBWG_H-High Priority	Desert wash	Roosts in trees, particularly palms. Forages over water and among trees.	No habitat for this species is present. Not present.

Scientific Name	Common Name	Federal	State	Other Status	Habitats	MicroHab	Presence/Absence
Leptoncycteris yerbabuena	lesser long-nosed bat	Endangered	None	IUCN_VU-Vulnerable WBWG_H-High Priority	Mojavean desert scrub Sonoran desert scrub Upper Sonoran scrub	Caves and mines are used as day roosts. Caves, mines, rock crevices, trees and shrubs, and abandoned buildings are used as night roosts for digesting meals. Nectar, pollen, and fruit eating bat; primarily feeding on agaves, saguaro, and organ pipe cactus.	No habitat for this species is present. Not present.
Lepus californicus bennettii	San Diego black-tailed jackrabbit	None	None	CDFW_SSC-Species of Special Concern	Coastal scrub	Coastal sage scrub habitats in Southern California.	The non-native vegetation dominant fields on the north and east part of the property may have habitat. Potential to be present.
Neotamias speciosus speciosus	lodgepole chipmunk	None	None		Chaparral Upper montane coniferous forest	Habitat is usually lodgepole pine forests in the San Bernardino Mts & chinquapin slopes in the San Jacinto Mts.	No habitat for this species is present. Not present.
Neotoma lepida intermedia	San Diego desert woodrat	None	None	CDFW_SSC-Species of Special Concern	Coastal scrub	Moderate to dense canopies preferred. They are particularly abundant in rock outcrops, rocky cliffs, and slopes.	No habitat for this species is present. Not present.
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	Rocky areas with high cliffs.	No habitat for this species is present. Not present.
Onychomys torridus ramona	southern grasshopper mouse	None	None	CDFW_SSC-Species of Special Concern	Chenopod scrub	Feeds almost exclusively on arthropods, especially scorpions and orthopteran insects.	No habitat for this species is present. Not present.

Scientific Name	Common Name	Federal	State	Other Status	Habitats	MicroHab	Presence/Absence
<i>Perognathus alticolus alticolus</i>	white-eared pocket mouse	None	None	BLM_S-Sensitive CDFW_SSC-Species of Special Concern IUCN_EN-Endangered USFS_S-Sensitive	Lower montane coniferous forest Mojavean desert scrub Pinon & juniper woodlands	Burrows are constructed in loose soil.	No habitat for this species is present. Not present.
<i>Perognathus longimembris brevinasus</i>	Los Angeles pocket mouse	None	None	CDFW_SSC-Species of Special Concern	Coastal scrub	Open ground with fine, sandy soils. May not dig extensive burrows, hiding under weeds and dead leaves instead.	No habitat for this species is present. Not present.
<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	Open areas for sunning, bushes for cover, patches of loose soil for burial, and abundant supply of ants and other insects.	The non-native vegetation dominant fields on the north and east part of the property may have habitat. Potential to be present.
<i>Plegadis chihi</i>	white-faced ibis	None	None	CDFW_WL-Watch List IUCN_LC-Least Concern	Marsh & swamp Wetland	Dense tule thickets for nesting, interspersed with areas of shallow water for foraging.	No habitat for this species is present. Not present.
<i>Polioptila californica californica</i>	coastal California gnatcatcher	Threatened	None	CDFW_SSC-Species of Special Concern NABCI_YWL-Yellow Watch List	Coastal bluff scrub Coastal scrub	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 is present. Not present.

Scientific Name	Common Name	Federal	State	Other Status	Habitats	MicroHab	Presence/Absence
<i>Rana draytonii</i>	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	Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	No habitat for this species is present. Not present.
<i>Rana muscosa</i>	southern mountain yellow-legged frog	Endangered	Endangered	CDFW_WL-Watch List IUCN_EN-Endangered USFS_S-Sensitive	Aquatic	Always encountered within a few feet of water. Tadpoles may require 2 - 4 yrs to complete their aquatic development.	No habitat for this species is present. Not present.
<i>Rhaphiomidas terminatus abdominalis</i>	Delhi Sands flower-loving fly	Endangered	None		Interior dunes	Requires fine, sandy soils, often with wholly or partly consolidated dunes & sparse vegetation. Oviposition req. shade.	No habitat for this species is present. Not present.
<i>Rhinichthys osculus</i> ssp. 3	Santa Ana speckled dace	None	None	AFS_TH-Threatened CDFW_SSC-Species of Special Concern USFS_S-Sensitive	Aquatic South coast flowing waters	Requires permanent flowing streams with summer water temps of 17-20 C. Usually inhabits shallow cobble and gravel riffles.	No habitat for this species is present. Not present.
<i>Salvadora hexalepis virgulata</i>	coast patch-nosed snake	None	None	CDFW_SSC-Species of Special Concern	Coastal scrub	Require small mammal burrows for refuge and overwintering sites.	No habitat for this species is present. Not present.

Scientific Name	Common Name	Federal	State	Other Status	Habitats	MicroHab	Presence/Absence
Setophaga petechia	yellow warbler	None	None	CDFW_SSC-Species of Special Concern USFWS_BCC-Birds of Conservation Concern	Riparian forest Riparian scrub Riparian woodland	Frequently found nesting and foraging in willow shrubs and thickets, and in other riparian plants including cottonwoods, sycamores, ash, and alders.	No habitat for this species is present. Not present.
Spea hammondii	western spadefoot	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	Vernal pools are essential for breeding and egg-laying.	No habitat for this species is present. Not present.
Spinus lawrencei	Lawrence's goldfinch	None	None	IUCN_LC-Least Concern NABCI_YWL-Yellow Watch List USFWS_BCC-Birds of Conservation Concern	Broadleaved upland forest Chaparral Pinon & juniper woodlands Riparian woodland	Closely associated with oaks.	No habitat for this species is present. Not present.
Streptocephalus woottoni	Riverside fairy shrimp	Endangered	None	IUCN_EN-Endangered	Coastal scrub Valley & foothill grassland Vernal pool Wetland	Inhabit seasonally astatic pools filled by winter/spring rains. Hatch in warm water later in the season.	No habitat for this species is present. Not present.
Taxidea taxus	American badger	None	None	CDFW_SSC-Species of Special Concern IUCN_LC-Least Concern	Chaparral Chenopod scrub Cismontane woodland Closed-cone coniferous forest Coastal bluff scrub Coastal dunes Coastal prairie Coastal scrub Desert dunes Desert wash Freshwater marsh Great Basin grassland Great Basin scrub Interior dunes lone formation Joshua tree woodland Limestone Lower montane coniferous forest Marsh & swamp Meadow & seep Mojavean desert scrub Montane dwarf scrub North coast coniferous forest Oldgrowth Pavement plain Redwood Riparian forest Riparian scrub Riparian woodland Salt marsh Sonoran desert	Needs sufficient food, friable soils and open, uncultivated ground. Preys on burrowing rodents. Digs burrows.	No habitat for this species is present. Not present.

Scientific Name	Common Name	Federal	State	Other Status	Habitats	MicroHab	Presence/Absence
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	Highly aquatic, found in or near permanent fresh water. Often along streams with rocky beds and riparian growth.	No habitat for this species is present. Not present.
Vireo bellii pusillus	least Bell's vireo	Endangered	Endangered	IUCN_NT-Near Threatened NABCI_YWL-Yellow Watch List	Riparian forest Riparian scrub Riparian woodland	Nests placed along margins of bushes or on twigs projecting into pathways, usually willow, Baccharis, mesquite.	No habitat for this species is present. Not present.

APPENDIX C

APN 0298-063-07
Biological Resources Study
City of Redlands
San Bernardino County, California



Existing commercial buildings on the property.



Existing commercial buildings on the property.

APN 0298-063-07
Biological Resources Study
City of Redlands
San Bernardino County, California



Landscaped areas within the developed portions of the property.



Existing parking lot on northwest corner of property.

APN 0298-063-07
Biological Resources Study
City of Redlands
San Bernardino County, California



Ruderal habitat on the north and east portion of property.



East portion of property facing west, showing ruderal and developed habitat.