Appendix B

Biological Resources Technical Report

BIOLOGICAL RESOURCES TECHNICAL REPORT
Elder Creek Channel Improvement Project

Prepared for:

San Bernardino County Flood Control District
825 East Third Street
San Bernardino, CA 92415

Prepared by:

Aspen Environmental Group
615 North Benson Avenue, Suite E
Upland, CA 91786

July 2019

Contents

Tables

Attachments

1. Executive Summary

This report was prepared under contract to the San Bernardino County Flood Control District (District) to describe biological resources at the Elder Creek Channel Improvement Project (project) site. The project site is located within Highland in San Bernardino County, California (Figure 1; note that all figures are included within Attachment 1). The District proposes to concrete-line much of the Elder Creek Channel between Old Greenspot Road and Plunge Creek. The project seeks to improve flood protection and enhance public safety for properties and infrastructure in the vicinity. This report describes the methods and results of a field survey for biological resources conducted by Aspen Environmental Group (Aspen) in 2019 and evaluates potential occurrence of special-status plants and animals, as well as sensitive vegetation communities or habitats. The term "special-status" species includes numerous designations, ranging from State or federally listed threatened or endangered species to agency "watch-lists," as defined in Table 2.

Two State or federally listed species were observed during the surveys, but were both beyond the limits of project impacts. San Bernardino kangaroo rat is a federally listed endangered species and was trapped just beyond the project impact area to the west of Church Channel. Santa Ana River woollystar is a State and federally listed species that was also observed at several locations around the perimeter of the project. No other listed species were observed, but several have at least a moderate potential to be present.

Three California Department of Fish and Wildlife (CDFW) Species of Special Concern were observed during the surveys, including northwestern San Diego pocket mouse, Los Angeles pocket mouse, and San Diego woodrat. Several additional CDFW Species of Special Concern have at least a moderate potential to be present. These species include burrowing owl, San Diego black-tailed jackrabbit, southern California legless lizard, California glossy snake, coast horned lizard, coastal whiptail, and loggerhead shrike. Several additional special-status animals including Cooper's hawk, white-tailed kite, and California horned lark have at least a moderate potential to be present.

Several special-status plants also have at least a moderate potential to be present and include Parry's spineflower, Plummer's mariposa-lily, and Robinson's pepper-grass.

Critical habitat for San Bernardino kangaroo rat is present in the southern portion of the project site (USFWS, 2008). Critical habitat for Santa Ana sucker (*Catostomus santaanae*) is present in the Santa Ana River, approximately 1.2 miles to the south of the project site (USFWS, 2010b).

Two of the vegetation types that are present within the project site are likely to be considered sensitive natural communities by CDFW, although they are not ranked as sensitive by the California Native Plant Society (CNPS). The project site is not within any mapped essential connectivity areas or natural landscape blocks. Due to surrounding land uses, the project site is not likely to serve as a significant wildlife movement route, although it may be used as a forage or dispersal area for wildlife in the immediate vicinity. Additionally, the nature of the project would not present a barrier to terrestrial wildlife movement.

2. Project and Property Description

2.1 Project Description

The San Bernardino County Flood Control District (District) proposes to construct and maintain flood control improvements along approximately 2,100 linear feet of the Elder Creek system within the City of Highland, San Bernardino County (Figure 1). The project limits are from Old Greenspot Road, to approximately 700 feet downstream of Abbey Way. The Elder Creek Channel Improvement Project (proposed Project) would increase the capacity of the Elder Creek system to handle a 100-year (Q100) storm event and allow for proper conveyance of flows into Plunge Creek. Currently, the Elder Creek system is undersized, and the downstream portion of the Creek is at a higher elevation than Plunge Creek downstream, resulting in flows backing up at the confluence with Plunge Creek. The portion of the Elder Creek system to be improved currently consists of reinforced concrete box, which transitions into an open channel, which then confluences with Plunge Creek downstream. The open channel contains both concrete and earthen segments. Proposed improvements include removing existing channel infrastructure and installing a deeper and slightly wider concrete rectangular channel between Old Greenspot Road and Abbey Way, constructing a concrete bypass rectangular channel and enlarging the existing earthen channel (low-flow channel) between Abbey Way and Plunge Creek. The intent of leaving the low-flow channel in place is to avoid impacts to federal wetlands that may be present; widening the channel would also create additional federal wetlands. Above the earthen channel, a small sedimentation basin is proposed to prevent excess sediment from entering the earthen channel. Grouted rip-rap would be placed at the confluence of the low-flow earthen channel, by-pass channel, and Church Street Channel to control erosion and reduce flow velocity. Other improvements include regrading and improving the existing side channel (East Highland Storm Drain), replacing two existing box culverts at the road crossings of Merris Street and Abbey Way, constructing a berm to protect the earthen channel, and revegetating the existing stockpile area southeast of the low-flow channel. The proposed Project also includes a one-time maintenance of Church Street Channel.

The project also includes routine maintenance of the new channel, which is expected to occur 1-2 times a year or every few years, depending on storms, and consist primarily of debris, trash, and graffiti removal, and fence and appurtenant structure repairs. Maintenance of the low-flow earthen channel is expected to be minimal and occur approximately twice a year, and would include invasive species removal, vegetation management that includes removing large tree species, thinning as required to ensure a healthy ecology and to allow vector control staff to address vector control concerns when they arise, and application of rodenticide as needed. Sediment removal would occur a few times a year within the sedimentation basin.

2.2 Project Location

The project site is located just south of Greenspot Road and approximately 0.5 miles east of Orange Street near Highland, California. The project site can be found on the Redlands, California United States Geological Survey (USGS) 7.5’ Quadrangle. Representative latitude-longitude coordinates for the project site are 34°06’19.93"N, 117°10'23.02"W. The project site consists of the existing Elder Creek and Church Channels, unvegetated stockpile areas, access roads, and open areas adjacent to residential development, and a limited amount of native wash vegetation along the margins. The topography of the project site is relatively flat and slopes towards the south. The elevation within the project site ranges from approximately 1,320 to 1,340 feet above mean sea level (MSL). Surrounding land uses include natural open space, flood control, commercial, and residential.

3. Methods

Justin M. Wood of Aspen Environmental Group (Aspen) reviewed available literature to identify special-status plants and wildlife known from the vicinity. Data from the California Natural Diversity Database (CNDDB; CDFW, 2019) was reviewed for the following USGS 7.5-minute topographic quadrangles (topo quads): Harrison Mountain, Keller Peak, Redlands, San Bernardino North, San Bernardino South, and Yucaipa. CNDDB search results are provided in Attachment 4. Soil maps for the survey area were reviewed using the Soil Web Survey (NRCS, 2019). All State listed, federally listed, and other special-status plants and wildlife from comparable habitats within the region are addressed below in the results section. Many of the special-status plants and wildlife identified during the literature search occur only in specialized native habitats that are absent from the survey area (i.e., meadows or alpine) or occur only at substantially higher or lower elevations. These plants and wildlife are listed in Attachment 5 and are not addressed further in this report.

On April 19, 2019, Mr. Wood completed a focused botanical survey, special-status species survey, and habitat assessment. During the survey Mr. Wood walked throughout all accessible portion of the survey area to search for plants and animals. All plant species observed were either identified in the field or vouchered with photographs or collections for later identification. Plants were identified using keys, descriptions, and illustrations in Baldwin et al. (2012) and other regional references. All plant and wildlife species observed during the field surveys are listed in Attachment 3. The field survey constitutes 100 percent coverage of the survey area for special-status plants (see Figure 1). Mr. Wood used binoculars to search for birds in vegetation, flipped rocks and debris to look for reptiles and invertebrates, searched through leaf litter for invertebrates and reptiles, looked for burrowing animals, and listened for bird calls. Several reference sites for special-status plants were also visited to ensure they were present and identifiable in 2019.

In conformance with CDFW (formerly California Department of Fish and Game) guidelines (CDFW, 2018a), botanical surveys were (a) conducted during flowering seasons for the special status plants known from the area, (b) floristic in nature, (c) consistent with conservation ethics, (d) systematically covered all habitat types on the sites, and (e) well documented, by this report, photos that will be uploaded to CalPhotos (BSCIT, 2019), and by voucher specimens to be deposited at Rancho Santa Ana Botanic Gardens and other herbaria. GPS location data, as well as habitat, phenology, and other environmental variables were collected for all special status species documented within the survey area.

During the survey Mr. Wood drew tentative vegetation boundaries on high-resolution aerial images. Following the field visit, Mr. Wood digitized vegetation and land cover types (see Figure 3). Digitizing was done using 1-meter-pixel aerial imagery. The minimum mapping unit is approximately 0.1 acre (about 4,400 square feet). Vegetation was mapped according to the nomenclature and descriptions in *A Manual of California Vegetation* (Sawyer et al. 2009). Mapped vegetation boundaries are accurate to within approximately 10 feet. Any vegetation map is subject to imprecision for several reasons:

1. Vegetation types tend to intergrade on the landscape so that there are no true boundaries in the vegetation itself. In these cases, a mapped boundary represents best professional judgment.
2. Vegetation types as they are named and described tend to intergrade; that is, a given stand of real-world vegetation may not fit into any named type in the classification scheme used. Thus, a mapped and labeled polygon is given the best name available in the classification, but this name does not imply that the vegetation unambiguously matches its mapped name.

3. Vegetation tends to be patchy. Small patches of one named type are often included within mapped polygons of another type. The size of these patches varies, depending on the minimum mapping units and scale of available aerial imagery.

In addition to the focused biological survey described above, a focused non-breeding season survey for coastal California gnatcatcher was conducted and focused trapping was also conducted for San Bernardino kangaroo rat (Carter, 2019 and Origin Biological, 2019). Focused trapping for San Bernardino kangaroo rat was also conducted in 2018 (Romich, 2018). Results from these focused surveys have been incorporated into this report.

4. Biological Survey Results

4.1 General Setting

The climate in the region consists of warm, dry summers and mild, wet winters. The average annual high temperature is about 80.1°F and the average annual low is about 51.7°F (U.S. Climate Data, 2019). Roughly 75 percent of the rain falls from December through March. The mean seasonal precipitation for the region is approximately 16.37 inches as reported at the San Bernardino International Airport (U.S. Climate Data, 2019). Rainfall was above average in the region during the 2018-2019 rainfall year (July 1 through June 30) with approximately 17.99 inches falling throughout the region (San Bernardino County, 2019).

The project site is located on an extensive alluvial fan that ranges in elevation from approximately 1,320 to 1,340 feet above mean sea level. Soils in the area are loam, sand, and gravel derived from alluvial fans originating in the San Bernardino Mountains to the north. Four soil types are mapped within the project site: Soboba gravelly loamy sand (0 to 9 percent slopes), Soboba stony loamy sand (2 to 9 percent slopes), Tujunga loamy sand (0 to 5 percent slopes), and psamments, fluvents and frequently flooded soils (NRCS, 2019).

4.2 Vegetation and Land Cover Types

Vegetation within the project site includes wetland vegetation, such as cattail marshes in Elder Creek and Church Channels. A very small strip of native upland vegetation is also present along the southeast side of the project site, but is not expected to be impacted by the project. Riparian vegetation is also present just outside of the project site to the southwest; however, this vegetation is not expected to be directly impacted by the project. Most of the project site is regularly maintained and is unvegetated. Vegetation is further described below.

Table 1: Acreage of Vegetation and Land Cover within the Project Site

Vegetation or Cover Types	Area within the Project Site (Acres)
Annual brome grassland	0.39
Arroyo willow thickets	<0.01
California buckwheat scrub	0.19
Cattail marshes	0.26
Developed	1.59
Disturbed	6.87
Open water	0.03
Smartweed-cocklebur patches	0.42

Total	**9.76**

Riparian and Wetland Vegetation Types

Arroyo willow thickets (*Salix lasiolepis* Woodland Alliance). Arroyo willow thickets are present at the downstream end of the project site. These are winter deciduous woodlands which have a dense canopy of arroyo willow (*Salix lasiolepis*), Fremont cottonwood (*Populus fremontii*), and black willow (*Salix gooddingii*). Other species such as narrow leaved willow (*Salix exigua*), mulefat (*Baccharis salicifolia*), and tall cyperus (*Cyperus eragrostis*) are also present.

Cattail marshes [*Typha* (*angustifolia, domingensis, latifolia*) Herbaceous Alliance]. Cattail marshes within the project site are dominated by a dense monotypic stand of broadleaf cattail (*Typha latifolia*). Other cattails such as narrow leaf cattail (*Typha angustifolia*) were also present in lower abundance. They are present within the wettest portion of the project site, which includes much of Elder Creek Channel and Church Channel (see Photo 1 in Attachment 2). This vegetation is seasonally removed by scouring flows, but quickly recolonizes the channels after flows subside.

Smartweed - cocklebur patches (*Polygonum lapathifolium - Xanthium strumarium* Herbaceous Alliance). Smartweed-cocklebur patches within the project area are dominated by common knotweed (*Persicaria lapathifolia*), water speedwell (*Veronica anagallis-aquatica*), and cocklebur (Xanthium strumarium). Other species such as watercress (*Nasturtium officinale*), Mexican sprangletop (*Leptochloa fusca* ssp. *uninervia*), and yellow monkey flower (*Mimulus guttatus*) were also present. Smartweed-cocklebur patches are present along the margins of Elder Creek Channel within the project site.

Upland Vegetation Types

Annual brome grassland. This upland vegetation type is present along the western edge of Church Channel and is dominated by ripgut brome (*Bromus diandrus*) and red brome (*Bromus madritensis* ssp. *rubens*). Other non-native species such as filarees (*Erodium* sps.) are also present.

California buckwheat scrub. California buckwheat scrub is a native upland vegetation type that is present along the southeast edge of the project site (see Photos 3 and 4 in Attachment 2). It is dominated by California buckwheat (*Eriogonum fasciculatum*), with other native species such as scalebroom (*Lepidospartum squamatum*), prickly pear (*Opuntia littoralis*), and California juniper (*Juniperus californica*) also present. Although not mapped, several patches of California juniper woodland (*Juniperus californica* Woodland Alliance) are also present just beyond the project site and are dominated by California juniper.

Other Land Cover Types

Developed. This cover types includes developed areas within the project site and includes paved roads, concrete flood control structures, and other structures.

Disturbed. This cover type includes disturbed unvegetated land surrounding the Elder Creek flood control facility.

Open water. This cover type includes a small area of open water within Church Channel that has accumulated because sediment in the channel is preventing the water from leaving the channel.

4.3 Sensitive Natural Communities

Sensitive vegetation communities have been previously defined by CDFW as, "...communities that are of limited distribution statewide or within a county or region and are often vulnerable to environmental

effects of projects." More recently they have defined Sensitive Natural Communities as Natural Communities with ranks of S1-S3 which need to be addressed in the environmental review processes of CEQA and its equivalents (CDFW, 2018b). The literature review identified nine sensitive vegetation communities recorded in the vicinity: canyon live oak ravine forest, Riversidian alluvial fan sage scrub, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern mixed riparian forest, southern riparian forest, southern riparian scrub, southern sycamore alder riparian woodland, and southern willow scrub.

Although not specifically mapped within the project site, the California buckwheat scrub vegetation matches the description of Riversidian alluvial fan sage scrub. The arroyo willow thickets that are present also match the description of southern willow scrub. CDFW is likely to recognize these two communities as sensitive even though they do not have an S rank of S1-S3. Regardless, impacts to these vegetation types should be evaluated in future CEQA documents.

4.4 Wildlife

Wildlife and wildlife sign observed during the field survey included species common in the region, such as common side-blotched lizard (*Uta stansburiana*), black phoebe (*Sayornis nigricans*), California towhee (*Melozone crissalis*), mourning dove (*Zenaida macroura*), deer mouse (*Peromyscus maniculatus*), and raccoon (*Procyon lotor*). San Bernardino kangaroo rat and northwestern San Diego pocket mouse were the only special-status wildlife species observed during the field surveys. Other wildlife species common in developed landscapes and open sparsely vegetated habitats throughout the region are also likely to be present but were not observed.

5. Special-status Species Results

Plants or wildlife may be ranked as special-status species due to declining populations, vulnerability to habitat change, or restricted distributions. Certain species have been listed as threatened or endangered under the Federal Endangered Species Act (FESA) or California Endangered Species Act (CESA). Others have not been listed, but declining populations or habitat availability cause concern for their long-term viability. These species of conservation concern appear on lists compiled by resource agencies or private conservation organizations. In this report, "special-status species" includes all plants and wildlife listed as threatened or endangered or included in these other compilations. All special-status plants and wildlife occurring in the region in habitats like those found within the survey area are addressed in Table 2, with brief descriptions of habitat and distribution, conservation status, and probability of occurrence.

5.1 Special-status Plants

One special-status plant, Santa Ana River woollystar, was found during the surveys but was beyond the limits of the project. There is at least a moderate potential for several other special-status plants to be present. Table 2 lists all special-status plants that were identified in the literature review that have at least a low potential to be present within the project site. Many special-status species known from the region occur in habitats that are absent from the survey area (e.g., meadows or chaparral) or at elevations much higher than the site. These plants and animals are listed in Attachment 5 and are not addressed further in this report.

Table 2. Special-Status Plants with Potential to Occur within the Project Site

Scientific Name **Common Name**	**Conservation Status**	**Habitat Type/ Blooming Period/ Elevation Range/ General Geographic Range**	**Potential for Occurrence in the Project Site**
Calochortus plummerae **Plummer's mariposa-lily**	Fed: none CA: S4 CRPR: 4.2	Chaparral, alluvial fans, pine forest, below ±5600 ft. elev.; widespread but uncommon throughout S. Calif. mts., foothills & valleys. May-Jul.	**Moderate**. Although not observed during the surveys, this species is likely to be present within less than 0.5 miles in the habitat adjacent to the project site.
Chorizanthe parryi var. *parryi* **Parry's spineflower**	Fed: none CA: S2 CRPR: 1B.1	Shrublands, open sandy places on alluvial slopes below about 4300 ft. elev.; Inland Empire and also coastal LA Co., Banning Pass, Cajon Pass. Apr-Jun.	**Moderate**. Although not observed during the surveys, this species is likely to be present within less than 0.5 miles in the habitat adjacent to the project site.
Chorizanthe xanti var. leucotheca **White-bracted spineflower**	Fed: none CA: S3 CRPR: 1B.2	Desert shrubland, pinyon-juniper woodland, about 1000-4000 ft. elev.; San Bernardino, Riverside, and San Diego Cos. Apr-Jun.	**Low.** Not observed during survey; suitable habitat is present; known from within about 2 miles of the project site.
Dodecahema leptoceras **Slender-horned spineflower**	Fed: END CA: END, S1 CRPR: 1B.1	Annual; open, sandy alluvial benches in valleys and canyons; San Fernando Valley, Santa Ana River Valley, western Riverside Co.; about 600-2500 ft. elev. Apr-Jun.	**Low.** Not observed during survey; suitable habitat is present; known historically from within 0.5 miles of the project site.
Eriastrum densifolium ssp. *sanctorum* **Santa Ana River woollystar**	Fed: END CA: END, S1 CRPR: 1B.1	Shrubland, alluvial fans and plains; endemic to Santa Ana River watershed, primarily in San Bern. Co.; below about 2000 ft. elev. May-Sep.	**Present.** 110 plants observed in the habitat immediately adjacent to the project site.
Lepidium virginicum var. *robinsonii* **Robinson's pepper-grass**	Fed: none CA: S3 CRPR: 4.3	Annual herb; shrublands below about 1700 ft. elev.; Los Angeles Co, inland to Riverside & San Bernardino Cos, and S to Baja Calif. Jan-Jul.	**Moderate**. Although not observed during the surveys, this species is likely to be present within less than 0.5 miles in the habitat adjacent to the project site.

Source: CDFW, 2019; CCH, 2019; CNPS, 2019

Conservation Status

Federal (Fed.) designations: (federal Endangered Species Act, U.S. Fish and Wildlife Service).

FE: Federally listed, endangered.
FT: Federally listed, threatened.
Prop.: Proposed for listing.
FC: Federal species of concern

***State (CA) designations*:** (California Endangered Species Act, California Department of Fish and Wildlife (CDFW))

SE: State listed, endangered.
ST: State listed, threatened.
CAND.: Candidate for State listing.
SR: State listed as rare (applied only to certain plants).
SC: California species of special concern. Considered vulnerable to extinction due to declining numbers, limited geographic ranges, or ongoing threats.
FP: Fully protected. May not be taken or possessed without permit from CDFW.

State (S) ranking: The state rank is assigned much the same way as the global rank, but state ranks refer to the imperilment status only within California's state boundaries.

S1: Critically Imperiled—Critically imperiled in the state because of extreme rarity (often 5 or fewer populations) or because of factor(s) such as very steep declines making it especially vulnerable to extirpation from the state.
S2: Imperiled—Imperiled in the state because of rarity due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors making it very vulnerable to extirpation from the state.
S3: Vulnerable—Vulnerable in the state due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors making it vulnerable to extirpation from the state.
S4: Apparently Secure—Uncommon but not rare in the state; some cause for long-term concern due to declines or other factors.
S5: Secure—Common, widespread, and abundant in the state.

California Native Plant Society Rare Plant Rank (CRPR) designations. Note: According to CNPS (http://www.cnps.org/cnps/rareplants/ranking.php), plants ranked as California Rare Plant Rank (CRPR) 1A, 1B, and 2 meet definitions as threatened or endangered and are eligible for state listing. That interpretation of the state Endangered Species Act is not in general use.

Table 2. Special-Status Plants with Potential to Occur within the Project Site

Scientific Name Common Name	Conservation Status	Habitat Type/ Blooming Period/ Elevation Range/ General Geographic Range	Potential for Occurrence in the Project Site

1A: Plants presumed extinct in California.
1B: Plants rare and endangered in California and throughout their range.
2: Plants rare, threatened or endangered in California but more common elsewhere in their range.
3: Plants about which we need more information; a review list.
4: Plants of limited distribution; a watch list.

California Rare Plant Rank Threat designations:
.1 Seriously endangered in California (over 80% of occurrences threatened / high degree and immediacy of threat)
.2 Fairly endangered in California (20-80% occurrences threatened)
.3 Not very endangered in California (<20% of occurrences threatened or no current threats known)

Definitions of occurrence probability: Estimated occurrence probabilities based on literature sources cited earlier and field surveys and habitat analyses reported here.

Present: Taxa were observed along the Project alignment during recent botanical surveys.
High: Both a documented recent record (within 10 years) exists of the taxa along the Project alignment or in the immediate vicinity (approximately 5 miles) and the environmental conditions (including soil type) associated with taxa are present.
Moderate: Both a documented recent record (within 10 years) exists of the taxa along the Project alignment or the immediate vicinity (approximately 5 miles) and the environmental conditions associated with taxa presence are marginal and/or limited along the Project alignment or the Project alignment is located within the known current distribution of the taxa and the environmental conditions (including soil type) associated with taxa are present.
Low: A historical record (over 10 years) exists of the taxa along the Project alignment or in the general vicinity (approximately 10 miles) and the environmental conditions (including soil type) associated with taxa are present but marginal and/or limited.
Minimal: Species not observed along the Project alignment, outside of the known range, and conditions unsuitable for occurrence.

5.2.1 Listed Threatened or Endangered Plants

This section includes plant species listed as threatened or endangered under the FESA or CESA. One listed plant, Santa Ana River woollystar, was observed during surveys immediately adjacent to the project site. Slender-horned spineflower was not observed, but has a moderate potential to be present in the mature wash vegetation to the east of the project site.

Slender-horned spineflower (*Dodecahema leptoceras*). Slender-horned spineflower is listed as endangered under both the FESA and the CESA and has a California Rare Plant Rank (CRPR) of 1B.1 (CDFW, 2019 and USFWS, 1987). It is a low-growing annual, typically flowering between April and May (CNPS, 2019). Its numbers vary greatly from year to year according to rainfall, and in years of low rainfall it may not come up at all. Slender-horned spineflower's usual habitat is open, slightly depressed sites within mature shrublands of broad alluvial systems (Allen, 1996; Wood and Wells, 1996). Occupied habitat is found on relatively flat surfaces with substrates ranging in age from about 100 years to several thousand years since the material was last deposited or scoured by flooding. Surrounding vegetation varies among sites and apparently does not affect habitat suitability. Similarly, cryptogamic soil crusts were found at some sites, but did not correlate with spineflower occupancy. Spineflower microsites are slightly lower than surrounding surfaces and have higher silt content and lower mineral, organic, and plant nutrient content than surrounding areas. Young and coauthors (2000) found that slender-horned spineflower does not require mycorrhizal associations, although it can host some mycorrhizae species.

It occurs in Los Angeles, Riverside, and San Bernardino counties. Within the vicinity of the project site, it is known from numerous occurrences in the Santa Ana River wash near Highland. The nearest historic occurrence is within about 0.25 miles of the project site on a mature alluvial terrace, just north of Plunge Creek. The nearest known extant occurrence is about 0.5 miles to the southeast near a mining haul route. This extant population was visited by Mr. Wood in 2019 and supported approximately 1,000 plants while,

other populations in the region had no plants present. Specific micro-climates and rainfall seem to vary greatly in region and although not observed near the project site in 2019, there is a moderate potential for them to germinate and be present in a year with above average rainfall.

Santa Ana River woollystar (*Eriastrum densifolium* ssp*. sanctorum*). Santa Ana River woollystar is federally and state listed as endangered (CDFW, 2019 and USFWS, 1987). The USFWS released a draft recovery plan in 1996, but a final recovery plan has not been adopted. There has been no proposed or final critical habitat designation. It is a shrub or subshrub occurring in open washes and early-successional alluvial shrublands. It is found on sandy or gravelly soils on floodplains of the Santa Ana River watershed in southwestern San Bernardino County. It is a short-lived species, typically lasting between five and ten years. Santa Ana River woollystar flowers relatively late in the season (between June and August) and its large blue floral displays can be conspicuous. On the Santa Ana River and Mill Creek floodplain, it occurs from the base of the San Bernardino Mountains to the former Norton Air Force Base (now San Bernardino International Airport). It also occurs farther west, in the Lytle Creek and Cajon Wash floodplains (tributary to the Santa Ana River). Within the Cajon Wash floodplain, Santa Ana River woollystar occurs from about 2000 feet elevation near Devore, south to about 1200 feet elevation where Lytle Creek and Cajon Wash enter a flood control basin (CDFW, 2019). Habitat farther downstream is routinely impacted by large flood events which scour the sediment and remove the plants. The last large scouring flood event was in 2010 which has allowed numerous populations of Santa Ana River woolly-star to become established downstream to the vicinity of Rialto Channel.

Santa Ana River woollystar is identified in the field by its stature (shrub or subshrub), gray-woolly foliage, and long tubular flowers (25-37 mm long; De Groot et al., 2019). This description is based on plants in the eastern part of its range (e.g., north of Redlands) and is only partially accurate for the Cajon Wash and Lytle Creek floodplain occurrences. These western occurrences have shorter flower tubes (ca. 14-23 mm.; Tierra Madre Consultants, 1988), but otherwise are similar to the eastern occurrences. These have been considered hybrids or intergrades between the eastern *Eriastrum densifolium* ssp. *sanctorum* populations and the more common subspecies (ssp. *densifolium* and possibly ssp. *elongatum*), which occur throughout much of the southern California area, including local mountains, valleys, and deserts (Wheeler, 1988; Burk et al., 1989). But the USFWS continues to recognize the Lytle Creek and Cajon Wash occurrences as the endangered Santa Ana River woollystar.

A total of 110 individual plants were mapped within approximately 200 feet of the project site (see Figure 4). The nearest plant is within about 40 feet of the project site (see Photo 2 in Attachment 2). None of these plants are expected to be impacted by the project; however, additional plants have a low potential to germinate within the project site prior to the start of project activities.

5.2.2 Other Special-status Plants

Parry's spineflower (*Chorizanthe parryi* var. *parryi*). Parry's spineflower has a CRPR of 1B.1 (CDFW, 2019). It is an annual herb in the buckwheat (Polygonaceae) family. Parry's spineflower is endemic to southern California and occurs in San Bernardino, Riverside, and San Diego Counties. It is found on sandy or gravelly soils in coastal scrub, Riversidian alluvial fan sage scrub, Mojavean desert scrub, and pinyon juniper woodland at elevations from 900 to 4000 feet, and flowers from April to June (CNPS, 2019). There is suitable habitat for this species on the project site along the southeastern edge of the stockpile. The nearest known extant occurrence is about 0.5 miles to the southeast near a mining haul route. There is a moderate potential for this species to germinate and be present in a year with above average rainfall.

California Rare Plant Rank 4 Species. No additional special-status species were found during focused plant surveys, but two have at least a moderate potential to be present: Robinson's pepper-grass (*Lepidium virginicum* var. *robinsonii*) and Plummer's mariposa-lily (*Calochortus plummerae*). Plummer's mariposa-lily is known from within about 1.5 miles of the project site. Robinson's pepper-grass is known from within about 1.0 mile of the project site. Suitable habitat is present for both species and they have a moderate potential to be present. Both plants are ranked as CRPR 4 species (i.e., a "watch list," not indicating rarity) and none are listed as threatened or endangered.

5.2 Special-status Wildlife

San Bernardino kangaroo rat and northwestern San Diego pocket mouse were the only special-status wildlife species observed during the biological surveys. Table 3 lists special-status wildlife species that were identified in the literature review except those excluded due to elevation or habitat (see Attachment 5). Special-status species with at least a moderate potential to be present are discussed in paragraphs following the table.

Table 3. Special-Status Wildlife with Potential to Occur Within the Project Site

Name	Status	Habitat Type	Occurrence Potential
INVERTEBRATES AND MOLLUSCS			
Bombus crotchii **Crotch bumble bee**	Fed: none CA: CAND., S1S2	Colonial insect; open grassland and scrub; underground colonies, often in old rodent burrows. Food plants include many native species such as *Chaenactis, Lupinus, Phacelia, Salvia,* and *Eriogonum*. Much of southern and central CA, SW Nevada and Baja.	**Low.** Not observed during survey; suitable habitat is limited on the project site and limited food plants are present; historical records from within 5 miles.
REPTILES			
Anniella stebbinsi **Southern California legless lizard**	Fed: none CA: SC, S3	Generally, south of the Transverse Range, south to NW Baja Calif. Sandy or loose loamy soils under sparse vegetation; soils typically have high moisture content.	**Moderate.** Not observed during survey; marginally suitable habitat present; known from within less than 0.5 miles.
Arizona elegans occidentalis **California glossy snake**	Fed: none CA: SC, S2	Patchily distributed from the east. San Francisco Bay, so. San Joaquin Valley, and the Coast, Transverse, and Peninsular ranges, south to Baja Calif. Loose sandy soils in coastal sage scrub and grasslands.	**High.** Observed within less than one mile of the project site during 2019. Suitable habitat present within the project site.
Aspidoscelis tigris stejnegeri **Coastal whiptail**	Fed: none CA: SC, S3	Found in deserts and semi-arid areas with sparse vegetation and open areas. Also found in woodland & riparian areas. Coastal Calif., Transverse, and Peninsular ranges, south to Baja Calif.	**High.** Although not observed during the surveys, this species is likely to be present on or immediately adjacent to the project site.
Phrynosoma blainvillii **Coast horned lizard**	Fed: none CA: SC, S3S4	A variety of habitats, including coastal sage scrub, chaparral, oak woodland, riparian woodland, and coniferous forest. Friable, sandy soils in areas with an abundant prey base of native ants are key habitat components.	**Moderate.** Not observed during survey; marginally suitable habitat present; known from within about 2 miles.
Salvadora hexilepis virgultea **Coast patch-nosed snake**	Fed: none CA: SC, S2S3	Coastal scrub and other shrubby vegetation types along coastal southern California; Requires small mammal burrows for refuge.	**Low.** Not observed during survey; marginally suitable habitat present; known from within about 5 miles.

Table 3. Special-Status Wildlife with Potential to Occur Within the Project Site

Name	Status	Habitat Type	Occurrence Potential
Thamnophis hammondii **Two striped gartersnake**	Fed: none CA: SC, S3S4	Distributed along Coastal California from Salinas to Baja. Found in a variety of habitats around perennial freshwater, including marshes, wetlands, swamps, as well as riparian scrub and woodland.	**Low.** Not observed during survey; minimally suitable habitat present; known from within about 2.5 miles.
BIRDS			
Accipiter cooperii **Cooper's hawk**	Fed: none CA: WL, S4	Hunts in broken woodland and habitat edges. Nests in dense stands of live oak, riparian deciduous or other forest habitats near water used most frequently.Migrates out of southern Calif. during winter.	**Moderate (foraging only).** Not observed during surveys; suitable foraging habitat is present.
Agelaius tricolor **Tricolored blackbird**	Fed: none CA: THR, SC, S1S2	Highly colonial species; requires open water, protected nesting substrate, and foraging areas with insect prey within a few kilometers of colony. Year-round.	**Low**. Not observed during surveys; minimally suitable nesting and foraging habitat is present.
Aimophila ruficeps canescens **Southern California rufous-crowned sparrow**	Fed: none CA: S3	Coastal sage scrub, open chaparral; S Calif. and NW Baja Calif.; Year-round.	**Low.** Not observed during surveys; suitable habitat is present; known from foothills of the San Bernardino Mountains.
Artemisiospiza belli **Bell's sage sparrow**	Fed: none CA: S3	Coastal sage scrub, chaparral, saltbush scrub, cismontane cent. and S Calif., NW Baja Calif. Active year-round.	**Low.** Not observed during survey; minimally suitable habitat present; known from within about 3 miles of the survey area.
Athene cunicularia **Burrowing owl**	Fed: none CA: SC, S3	Nests mainly in rodent burrows, usually in open grassland or shrubland; forages in open habitat; increasingly uncommon in S Calif.; through W US and Mexico.	**Moderate**. Not observed during survey; suitable habitat is present; known from within about 5 miles of the project site.
Buteo swainsoni **Swainson's hawk**	Fed: none CA: THR, S3	Breeds in open habitats (e.g., grassland), Central Valley and W Mojave Desert (Calif.) and east to cent. US, S. Canada, New Mexico; winters in S America; Spring–Summer.	**Low (migration only).** Does not nest in the region; suitable foraging habitat present only; migrates through the region.
Elanius leucurus **White-tailed kite**	Fed: none CA: S3S4, FP	Typically nests at lower elevations in riparian trees, including oaks, willows, and cottonwoods; forages over open country. Throughout much of cismontane California. Year-round.	**Moderate (foraging only).** Suitable foraging habitat present; nesting habitat is found elsewhere in region.
Eremophila alpestris actia **California horned lark**	Fed: none CA: S3	Open, flat lands incl. sparse sagebrush or grassland, meadows, alkali flats; wide elev. range; breeds in western Calif (San Diego Co through Humboldt Co) and Baja Calif; winters in same range.	**Moderate (migration only).** Does not nest in the region; suitable foraging habitat present only; migrates through the region.
Falco columbarius **Merlin**	Fed: none CA: S3S4	Uncommon wintering species in S Calif. desert and valleys (breeds in northern N America and Eurasia). Wintering only.	**Low (wintering only).** Does not nest in the region; suitable foraging habitat present only; winters throughout the region.
Icteria virens **Yellow-breasted chat**	Fed: none CA: SC, S3	Inhabits riparian thickets of willow and other brushy tangles near water courses; nests in low, dense riparian vegetation; nests and forages within 10 feet of ground.	**Low**. Not observed during surveys; minimally suitable nesting and foraging habitat is present.
Lanius ludovicianus **Loggerhead shrike**	Fed: none CA: SC, S4	Woodlands, shrublands, open areas with scattered perch sites; not dense forest; widespread in N America; valley floors to about 7,000 ft. elev. Year-around.	**High.** Not observed during surveys; suitable nesting and foraging habitat is present; known from numerous records within about 1 mile.

Table 3. Special-Status Wildlife with Potential to Occur Within the Project Site

Name	Status	Habitat Type	Occurrence Potential
Polioptila californica californica **Coastal California gnatcatcher**	Fed: **FT** CA: SC, S2	Coastal sage scrub; will utilize adjacent habitats, including grasslands, chaparral, and riparian habitats for foraging and dispersal; year-round resident.	**Low.** Not observed during focused surveys; marginally suitable habitat present; known from within about 3 miles of the project site.
Setophaga petechia **Yellow warbler**	Fed: none CA: SC, S3S4	Riparian vegetation; prefers willows, cottonwoods, aspens, sycamores, and alders for nesting and foraging. Throughout much of southern Calif. Spring-summer.	**Low**. Not observed during surveys; minimally suitable nesting and foraging habitat is present.
Vireo bellii pusillus **Least Bell's vireo**	Fed: **FE** CA: **CE**, S2	Found in low riparian habitat, including riparian forest, scrub, woodland in Southern California. Found in vicinity to water or dry river beds. Nest in margins and openings of riparian vegetation; Summer resident.	**Low**. Not observed during surveys; minimally suitable nesting and foraging habitat is present.
MAMMALS			
Antrozous pallidus **Pallid bat**	Fed: none CA: SC, S3	Desert, grassland, shrubland, woodland, forest; most common in open, dry habitats with rocky areas for roosting. Spring-summer.	**Minimal (roosting).** No suitable roost sites are present. **Moderate (foraging).** Suitable foraging habitat is present.
Chaetodipus fallax fallax **Northwestern San Diego pocket mouse**	Fed: none CA: SC, S3S4	Open shrublands and sandy areas; coastal and interior valleys of SW Calif. (E LA Co., Orange, Riverside, San Bern., San Diego Cos.) and NW Baja Calif.	**Present.** 18 animals captured on or adjacent to the project site during focused small mammal trapping.
Dipodomys merriami parvus **San Bernardino kangaroo rat**	Fed: **FE** CA: SC, S1	Alluvial shrubland; interior valleys of S Calif., Cajon Pass and San Gorgonio Pass west to Colton area and south to Aguanga.	**Present.** One individual captured immediately west of the project site during focused small mammal trapping.
Eumops perotis californicus **Greater Western mastiff bat**	Fed: none CA: SC, S3S4	Lowlands (rare exceptions); cent. and S Calif., S Ariz., NM, SW Tex., N Mexico; roost in deep rock crevices, forage over wide area.	**Minimal (roosting).** No suitable roost sites are present. **Moderate (foraging).** Suitable foraging habitat is present.
Lasiurus xanthinus **Western yellow bat**	Fed: none CA: SC, S3	Mexico and Cent. Amer., north to S AZ; Riv., Imperial and San Diego Cos.; riparian and wash habitats; roosts in trees; evidently migrates from Calif. during winter.	**Minimal (roosting).** No suitable roost sites are present. **Moderate (foraging).** Suitable foraging habitat is present.
Lepus californicus bennettii **San Diego black-tailed jackrabbit**	Fed: none CA: SC, S3S4	Most habitat types, especially shrublands; W Calif. and NW Baja Calif.	**High**. Not observed during survey; suitable habitat is present; known from the Santa Ana River Wash to the south of the project site.
Neotoma lepida intermedia **San Diego desert woodrat**	Fed: none CA: SC, S3S4	Coastal scrub with a moderate to dense canopies preferred. Particularly abundant in rock outcrops, rocky cliffs, and slopes. So. California from San Diego to San Luis Obispo Cos.	**Present.** One individual captured immediately west of the project site during focused small mammal trapping.
Nyctinomops femorosaccus **Pocketed tailed bat**	Fed: none CA: SC, S3	Deserts and arid lowlands, SW US, Baja Calif., mainland Mexico; Roost mainly in crevices of high cliffs; forage over water and open shrubland.	**Minimal (roosting).** No suitable roost sites are present. **Moderate (foraging).** Suitable foraging habitat is present.
Perognathus longimembris brevinasus **Los Angeles pocket mouse**	Fed: none CA: SC, S1S2	Open shrublands, grasslands; often sandy alluvial benches; S Calif. valleys, LA, SW San Bernardino and W Riverside Cos.	**Present.** Two individuals were captured in focused trapping in August 2018. One individual was within the project site and one was just outside of the project site.

Table 3. Special-Status Wildlife with Potential to Occur Within the Project Site

Name	Status	Habitat Type	Occurrence Potential
Taxidea taxus **American badger**	Fed: none CA: S3, CSC	Mountains, deserts, interior valleys where burrowing animals are avail as prey and soil allows digging; throughout cent and W N America. Year-round	**Low.** Marginally suitable habitat present, no recent occurrences in project vicinity.

See Table 2 for definition of Conservation Status and Occurrence Probability.

Source: American Ornithologists' Union, 1998; CDFW, 2019; ebird.org, 2019; Feldhamer et al., 2003; Garrett and Dunn, 1981; Grinnell and Miller, 1944); Hall, 1981; Harvey et al., 1999; Hatfield et al., 2015; iNaturalist, 2019; Jennings and Hayes, 1994; Nafis, 2019; Parham and Papenfuss, 2013; Pianka, 1970; Wilson and Ruff, 1999; and Zeineret al., 1990.

5.2.1 Listed Threatened or Endangered Wildlife

San Bernardino kangaroo rat (*Dipodomys merriami parvus*). San Bernardino kangaroo rat was proposed for emergency listing as endangered under the FESA in 1998 (USFWS, 1998), followed by a Final Rule issued later that year (USFWS, 1998). It is one of three subspecies of the more common Merriam's kangaroo rat (*Dipodomys merriami*) found in California. The San Bernardino kangaroo rat is a small, burrowing rodent that occupies alluvial floodplains and adjacent upland habitats along the Santa Ana River and Lytle, Cajon, and Cable Creeks in San Bernardino County and the San Jacinto River and Bautista Creek in Riverside County. It is generally associated with Riversidean alluvial fan sage scrub (USFWS, 2009).

San Bernardino kangaroo rat is primarily nocturnal and lives in burrow systems (precincts), which are typically occupied by a single adult or female with young. This species is nocturnal and eats mainly seeds, supplementing its diet with insects and vegetation (USFWS, 2009).

Kangaroo rat populations typically experience large fluctuations in response to changes in plant productivity, often related to annual variation in rainfall. The areas which San Bernardino kangaroo rat occupies are subject to periodic flooding, which may destroy burrows, drown animals, and scour out food sources. Therefore, local survival of the species depends on the presence of animals in nearby occupied habitat that is not damaged by stormflows, typically alluvial terraces or benches in areas elevated above the main channel and supporting a vegetation community comprised mainly of shrubs and short-lived perennial plant species. Preservation of San Bernardino kangaroo rat populations depends on maintaining the hydrologic regime in the alluvial fans that support its habitat and retaining habitat connectivity between upland terraces and the alluvial floodplain (USFWS, 2009).

San Bernardino kangaroo rat is known from several locations in the Santa Ana River Wash near the project site (CDFW, 2019). San Bernardino kangaroo rats were not captured within the project site in 2018 but were captured in 2019 when the trapping area was expanded into adjacent natural habitats. One individual was captured in a trap, approximately 90 feet from the project site (see Photo 2 in Attachment 2). San Bernardino kangaroo rat may occasionally forage within the project footprint, but are not expected to burrow within the project site.

Coastal California gnatcatcher (*Polioptila californica californica*). Coastal California gnatcatcher was listed as federally threatened in 1993 (USFWS, 1993). It inhabits coastal sage scrub in low-lying foothills and valleys up to about 2,000 feet elevation in southwestern California and Baja California year-round. Coastal California gnatcatchers may also occur in chaparral or other habitats adjacent to occupied coastal sage scrub, for foraging and dispersal but they are tied to coastal sage scrub for reproduction (USFWS 2010a). They are typically associated with coastal sage scrub plants such as California sagebrush, California buckwheat, sunflowers (*Encelia* spp.), and sages (*Salvia* spp.) (USFWS 2010a).

Coastal California gnatcatcher are known to nest in the Santa Ana River Wash, just north of the Redland Airport, about 2.3 miles of the project site. Within the Santa Ana River Wash, they tend to nest in coastal sage scrub that is dominated by brittlebush (*Encelia farinosa*) and California buckwheat. They are likely to expand their range in the wash in the future but at this time they are limited to this southern bench within the wash. Focused surveys were conducted within the project site in late 2018 and early 2019 and during May and June of 2010 and no coastal California gnatcatchers were observed (Carter, 2019 and Brandman, 2011). No CAGN were determined to be on site.

5.2.2 CDFW Species of Special Concern

Southern California legless lizard (*Anniella stebbinsi*). Southern California legless lizard is found throughout much of coastal southern California. It is found in a variety of habitats including broadleaved upland forest, chaparral, coastal dunes, and coastal scrub. It is largely fossorial, and its preferred micro-habitat is loose sandy soils (CDFW, 2019). It has been reported from numerous locations within the Santa Ana River Wash including one record within less than 0.5 miles of the project site. Although not observed during the surveys, there is a moderate potential for this species to be present.

California glossy snake (*Arizona elegans occidentalis*). California glossy snake has a patchy distribution in California that includes eastern portions of the San Francisco Bay, the southern San Joaquin Valley, the Coast and Transverse Ranges, and south along the Peninsular ranges into Baja California (CDFW, 2019). It lives in a variety of scrub and grassland habitats. It has been reported from numerous locations within the Santa Ana River Wash including one record within less than 2.0 miles of the project site. During 2019, Mr. Wood also observed a roadkill California glossy snake on Greenspot Road near Plunge Creek, within about 1.3 miles of the project site. Although not observed during the surveys, there is a high potential for this species to be present.

Coast horned lizard (*Phrynosoma blainvillii*). Coast horned lizard is found throughout much of coastal southern California, inland as far as the southern Mojave Desert and to about 6000 feet elevation in the mountains. Coast horned lizards occur in sandy soils in a variety of shrubland, grassland, and woodland habitat types. They have been extirpated from much of their historic range by land use changes, but they remain fairly common in natural open space areas where their primary prey (native ants) are found. They have been documented in the Santa Ana River Wash to the south of the project site. Suitable habitat is present and there is a moderate potential for them to be present within the project site.

Coastal whiptail (*Aspidoscelis tigris stejnegeri*). Coastal western whiptail is a CDFW Species of Special Concern. It occurs in woodlands, chaparral, washes, and annual grasslands. It is most common in dense vegetation but are also found around sandy areas along gravelly arroyos or washes. It is found in coastal southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges. Its range extends north into Ventura County and south to Baja California. Coastal whiptail is known from numerous locations throughout the Santa Ana River Wash and is expected to be present within the project site.

Burrowing owl (*Athene cunicularia*). The burrowing owl is a CDFW Species of Special Concern and, as a native bird, is protected by the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code. It is a small, terrestrial owl of open country. During the breeding season, it ranges throughout most of the western U.S. It occurs year-round in southern California, but may be more numerous during fall and winter, when migratory individuals from farther north join the regional resident population. Burrowing owl favors flat, open annual or perennial grassland or gentle slopes and sparse shrub or tree cover. It uses the burrows of ground squirrels and other rodents for shelter and nesting, and availability of suitable burrows is an important habitat component. Where ground squirrel burrows are not available, the owl may use alternate burrow sites or man-made features such as drain pipes, debris piles, or concrete slabs.

Burrowing owl nesting season, as recognized by the California Burrowing Owl Consortium (CBOC, 1993), is 1 February through 31 August. The nearest record of burrowing owl is about 5 miles west of the project site, near the San Bernardino International Airport. No burrowing owl or burrowing owl sign was observed within the project site during the surveys; however, suitable burrows were observed and there is a moderate potential for burrowing owls to be present in the future.

Loggerhead shrike (*Lanius ludovicianus*). Loggerhead shrike is a widespread bird of arid environments in southern California. It is found in a variety of habitats including woodlands, savannahs, pinyon-juniper Joshua tree woodlands, and riparian woodlands. It is also frequently found in open shrubland and grassland habitats. Loggerhead shrike have been reported from dozens of locations in the Santa Ana River Wash including along Plunge Creek about 1.3 miles to the east. Although not observed during the surveys, there is a high potential for this species to forage and nest on or adjacent to the project site.

Northwestern San Diego pocket mouse (*Chaetodipus fallax fallax*). The northwestern San Diego pocket mouse is a small burrowing rodent found in areas with rocky or gravelly soil in coastal sage scrub, alluvial fan sage scrub, chaparral, desert scrub, and scrub-grassland ecotones. It may be fairly common in suitable habitats. It occurs in Orange County and western San Diego, Riverside and San Bernardino counties. It feeds primarily on grass seeds, and is active nocturnally (Hall, 1981). Habitat within the project site and several individuals we captured in and adjacent to the project site.

San Diego desert woodrat (*Neotoma lepida intermedia*). San Diego desert woodrat is known from coastal and desert scrub and rocky outcrops throughout much of southern California (CDFW, 2019). It frequently builds large middens (piles of sticks and debris arranged to form a shelter) in rock outcrops or around the bases of shrubs. In some portions of its range it builds middens primarily at the bases of cactus (*Opuntia* sps.) and yucca (*Yucca* sps.) plants (Feldhamer et al., 2003). Habitat within the project site is suitable and one individual was captured during the surveys just to the west of Church Channel. San Diego desert woodrat is likely to forage within the project site and may also construct middens within the project site.

San Diego black-tailed jackrabbit (*Lepus californicus bennettii*). San Diego black-tailed jackrabbit is found in arid scrub and grassland habitats in coastal portions of Los Angeles, Riverside, and San Bernardino counties. It inhabits open land but requires some shrubs for cover. The San Diego black-tailed jackrabbit does not typically use burrows; shallow depressions under shrubs are used for nesting. It is primarily nocturnal and feeds on grasses, forbs, and shrubs (Hall, 1981). Suitable habitat is present on the project site and this species has been reported from the region. There is a moderate potential for San Diego black-tailed jackrabbit to be present in the future.

Los Angeles pocket mouse (*Perognathus longimembris brevinasus*). Los Angeles pocket mouse is one of eight subspecies of the little pocket mouse (*Perognathus longimembris*) in California. This small burrowing rodent hibernates in the winter, generally from October to February, and also enters periods of torpor. It feeds mainly on seeds, and also forbs and insects. Its habitat is lower elevation grassland, alluvial sage scrub, and coastal sage scrub (Brylski, 1998). This species historically occurred in the coastal basins of southern California, from the San Fernando Valley East to Cabazon, south through the San Jacinto and Temecula Valleys. However, it has been extirpated from most or all of the San Fernando and San Bernardino valleys. The species is still uncommon to common at various localities from the base of the San Bernardino Mountains east to Cabazon and south to Temecula and the surrounding foothills. However, habitat has been fragmented by development and many extant populations are small and disjunct, and in danger of extirpation (Brylski, 1998). Habitat on the project site is suitable for Los Angeles pocket mouse and two individuals were captured during focused trapping late 2018. One of these was captured within the project site and one was just northwest of the project site along Church Channel.

Bats. Four special-status bat species have a moderate potential to forage over the survey area: pallid bat (*Antrozous pallidus*), western yellow bat (*Lasiurus xanthinus*), greater western mastiff bat (*Eumops perotis californicus*), and pocketed free-tailed bat (*Nyctinomops femorosaccus*). All four of these bats forage over riparian or scrub habitats. These species all have a moderate potential to forage over the project site. These species are not expected to roost in the project site because there is no suitable roosting habitat.

5.2.3 Other Special-status Wildlife Species

Raptors: Several special-status birds of prey are found seasonally in the region, especially during winter and during migration. These are Cooper's hawk (*Accipiter cooperii*; CDFW Watch List species), and white-tailed kite (*Elanus leucurus*; CDFW fully protected). Suitable winter or migratory season foraging habitat for these raptors is widely available throughout the region. These species, if present may forage on the Project site but would not nest because of a lack of suitable habitat.

Other special-status birds: One additional special-status bird species is reported from the surrounding area (CDFW, 2019; Table 2): California horned lark (*Eremophila alpestris actia*; CDFW Watch List Species). This species was not observed on the Project site during field surveys. California horned lark are known from throughout the region and this species is likely to forage on the project site but is not expected to nest on the project site.

5.3 Designated Critical Habitat

Critical habitat for San Bernardino kangaroo rat is present in the southern portion of the project site (USFWS, 2008). Critical habitat for Santa Ana sucker is present in the Santa Ana River, approximately 1.2 miles to the south of the project site (USFWS, 2010b). All other designated critical habitat in the region is more than five miles from the project site.

5.4 Wildlife Movement

The ability for wildlife to move freely among populations and habitat areas is important to long-term genetic variation and demography. Fragmentation and isolation of natural habitat may cause loss of native species diversity in fragmented habitats. In the short term, wildlife movement may also be important to individual animals' ability to occupy their home ranges, if their ranges extend across a potential movement barrier. These considerations are especially important for rare, threatened, or endangered species, and wide-ranging species such as large mammals, which exist in low population densities.

The California Essential Habitat Connectivity Project was commissioned by the California Department of Transportation (Caltrans) and CDFW to create a statewide assessment of essential habitat connectivity to be used for conservation and infrastructure planning (Caltrans and CDFW, 2010). One of its goals was to create the Essential Connectivity Map, which depicts large, relatively natural habitat blocks that support native biodiversity (natural landscape blocks) and areas essential for ecological connectivity between them (essential connectivity areas). This map does not reflect the needs of particular species but is based on overall biological connectivity and ecological integrity. A more detailed analysis is required to assess local and regional needs for connectivity and develop linkage designs based on the requirements of individual species (Caltrans and CDFW, 2010).

The Essential Connectivity Map (Caltrans and CDFW, 2010) identifies the San Bernardino Mountains approximately 1.3 miles to the north of the project site as a natural landscape block. It also maps a portion of the foothills to the north as an essential connectivity area to allow movement along the base of the San Bernardino Mountains. The project site is largely within an urbanized environment with some native intact

habitat and open space to the south. The project site provides localized wildlife movement opportunity, but fences, paved roads, residential development, and infrastructure greatly reduce the potential for wildlife movement in the area. The project site is likely to be used by local wildlife to move up and down the Elder Creek and Church Channels and between some other areas of open space. It is not expected to be used for regional migration. Additionally, the nature of the project would not present a barrier to terrestrial wildlife movement.

5.5 Nesting Birds

Nesting birds are protected under the federal MBTA and California Fish and Game Code Sections 3503, 3503.5, and 3513 which prohibit take of migratory birds, including eggs or active nests, except as permitted by regulation (e.g., licensed hunting). No birds were nesting in the survey area at the time of the survey, but several bird species were present, and are likely to nest there in some years. These include Anna's hummingbird (*Calypte anna*), black phoebe (*Sayornis nigricans*), and killdeer (*Charadrius vociferus*). Many other common birds such as lesser goldfinch (*Spinus psaltria*), and mallard (*Anas platyrhynchos*) are also expected to nest within the project site.

6. Summary

San Bernardino kangaroo rat and Santa Ana River woollystar are the only listed species determined to be present in the habitat adjacent to the project site. No other State or federally listed species were present but several have at least a moderate potential to be present.

Northwestern San Diego pocket mouse, Los Angeles pocket mouse, and San Diego desert woodrat were the only CDFW Species of Special Concern that were observed during the surveys. Several additional species have at least a moderate potential to be present including the following:

- Southern California legless lizard
- California glossy snake
- Coast horned lizard
- Coastal whiptail
- Burrowing owl
- Cooper's hawk
- White-tailed kite
- California horned lark
- Loggerhead shrike
- San Diego black-tailed jackrabbit

Several additional special-status plants have at least a moderate potential to be present including Parry’s spineflower, Plummer’s mariposa-lily, and Robinson's pepper-grass.

Two of the vegetation types that are present within the project site are likely to be considered sensitive natural communities by CDFW although they are not ranked as sensitive by CNPS. The survey area is not within any designated wildlife corridors and is not likely to serve as a significant wildlife movement route, although it may be used as a forage or dispersal area for wildlife in the immediate vicinity.

7. Literature Cited

Allen, E.B. 1996. Characterizing the habitat of slender-horned spineflower (*Dodecahema leptocerus*): Ecological analysis. Unpublished report prepared for California Dept. of Fish and Game, Long Beach, CA (distributed May 1997 by DFG Natural Heritage Division, Sacramento).

American Ornithologists' Union. 1998. Check-list of the North American Birds, 7th ed. Prepared by Committee on Classification and Nomenclature. American Ornithologists' Union, Washington DC.

Baldwin, B.G., D.H. Goldman, D.J. Keil, R. Patterson, T.J. Rosatti, D.H. Wilken (eds.) 2012. The Jepson Manual: Vascular Plants of California, 2nd ed. University Press, Berkeley, California.

BSCIT (Biodiversity Sciences Technology Group). 2019. CalPhotos database. University of California, Berkeley. [Online]: http://calphotos.berkeley.edu/

Brandman. 2011. Focused California Gnatcatcher Survey Report. Plunge and Elder Creek Improvement Project, Redlands, San Bernardino County, California, Michael Brandman Associates, June 21, 2010; updated September 2011

Brylski, P.V. 1998. Los Angeles pocket mouse, *Perognathus longimembris brevinasus* In Bolster, B.C. (ed.) Terrestrial Mammal Species of Special Concern in California. Report prepared for the California Department of Fish and Game.

Burk, J., C. Jones, and J. Wheeler. 1989. New Information on the rare Santa Ana River woolly-star. Fremontia, 17(3):20-21.

CDFW (California Department of Fish and Wildlife). 2019. California Natural Diversity Database (CNDDB), Rarefind, Version 5. Heritage section, CDFW, Sacramento.

_____. 2018a. Protocols for Surveying and Evaluating Impacts to Special Status Native Plant Populations and Sensitive Natural Communities. Unpublished. California Department of Fish and Wildlife, Sacramento, California.

_____. 2018b. California Sensitive Natural Communities. [Online]: https://nrm.dfg.ca.gov/FileHandler.ashx?DocumentID=153398&inline (accessed July 2019).

CalTrans and CDFW (California Department of Transportation and California Department of Fish and Wildlife). 2010. California Essential Habitat Connectivity Project: A Strategy for Conserving a Connected California. [Online]: https://www.wildlife.ca.gov/Conservation/Planning/Connectivity Accessed July 2019.

CNPS (California Native Plant Society). 2019. Inventory of rare and endangered plants. California Native Plant Society. Sacramento. [Online]: http://www.cnps.org/inventory. Accessed July 2019.

Carter, K. 2019. 45-Day Report for Protocol Coastal California Gnatcatcher Surveys. Prepared for the San Bernardino County Department Of Public Works' Proposed Elder Creek Channel Improvement Project, City Of Highland, County of San Bernardino, California. (March 15).

CCH (Consortium of California Herbaria). 2019. Botanical specimen data provided by the participants of the Consortium of California Herbaria. [Online]: http://ucjeps.berkeley.edu/consortium/ Accessed July 2019.

De Groot, S., D. Gowen, and R. Patterson. 2019. Jepson eflora: Vascular Plants of California, taxon page for Santa Ana River woollystar (*Eriastrum densifolium* subsp. *sanctorum*). [Online]: http://ucjeps.berkeley.edu/eflora/eflora_display.php?tid=50332. Accessed July 2019.

eBird.org. 2019. eBird: An online database of bird distribution and abundance [web application]. eBird, Ithaca, New York. [Online]: http://www.ebird.org. Accessed: July 2019.

Feldhamer, G.A., B.C. Thompson, and J.A. Chapman (eds.). 2003. Wild Mammals of North America: Biology, Management and Conservation, 2nd ed. Johns Hopkins University Press, Baltimore MD.

Garrett, K. and J. Dunn. 1981. Birds of Southern California: Status and Distribution. Los Angeles Audubon Society, Los Angeles, California.

Grinnell, J. and A.H. Miller. 1944. The Distribution of the Birds of California. Cooper Ornithological Club, Berkeley (reprint 1986 by Artemisia Press, Lee Vining, Calif.).

Hall, E.R. 1981. The Mammals of North America. John Wiley and Sons, New York.

Harvey, M.J., J.S. Altenbach, and T. L. Best. 1999. Bats of the United States. Arkansas Game and Fish Commission and US Fish and Wildlife Service.

Hatfield, R., Jepsen, S., Thorp, R., Richardson, L. & Colla, S. 2015. *Bombus crotchii*. The IUCN Red List of Threatened Species 2015: e. T44937582A46440211. http://dx.doi.org/10.2305/IUCN.UK.2015-2.RLTS.T44937582A46440211.en. Accessed July 2019.

iNaturalist.org. 2019. Inaturalist. [Online]: https://www.inaturalist.org/observations Accessed July 2019.

Jennings, M.R. and M.P. Hayes. 1994. Amphibian and reptile species of special concern in California. California Dept. of Fish and Game, Sacramento.

Nafis, G. 2019. California Herps - A Guide to the Amphibians and Reptiles of California (2000-2019). [Online]: http://www.californiaherps.com/ Accessed July 2019.

Natural Resource Conservation Service (NRCS). 2019. Web Soil Survey 2.0. http://websoilsurvey.nrcs.usda.gov/. Accessed July 2019.

Origin Biological. 2019. San Bernardino Kangaroo Rat Trapping Results for the Elder Creek Channel Improvement Project, Highland, San Bernardino County, California (TE-068799-5). Prepared for Aspen Environmental Group on behalf of the San Bernardino County Flood Control District.

Parham, J. F., and T. J. Papenfuss. 2013. Four new species of California legless lizards (*Anniella*). Breviora Sept 2013, vol. 536:1-17.

Pianka, E.R. 1970. Comparative autecology of the lizard *Cnemidophorus tigris* in different parts of its geographic range. Ecology 51: 703-720.

Romich, M. 2018. San Bernardino Kangaroo Rat Trapping Results for the Elder Creek Channel Improvement Project, Highland, San Bernardino County, California. Prepared for Dewberry

San Bernardino County (San Bernardino County Flood Control District). 2019. Annual rainfall data for San Bernardino County. [Online]: http://www.sbcounty.gov/dpw/pwg/alert/reports.html Accessed July 2019.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evans. 2009. Manual of California Vegetation, 2nd ed. California Native Plant Society, Sacramento, California. 1300 pp.

Tierra Madre Consultants. 1988. Biological Assessment of the Proposed Glen Helen Sheriff's Training Facility site. Unpublished report prepared for Tom Dodson Associates, San Bernardino, California.

U.S. Climate Data. 2019. Average annual weather conditions for San Bernardino, California. [Online]: https://www.usclimatedata.com/climate/ontario/california/united-states/usca2487 Accessed July 2019.

USFWS (U.S. Fish and Wildlife Service). 1987. Endangered and threatened wildlife and plants; endangered status for *Eriastrum densifolium* ssp. *sanctorum* (Santa Ana River woolly-star) and *Centrostegia leptoceras* (Slender-horned spineflower). Federal Register 52:36265-36270. (September 18).

_____. 1993. Endangered and threatened wildlife and plants; determination of threatened status for the coastal California gnatcatcher; Final rule. Federal Register 58: 16742–16757. (March 30).

_____. 1998. Endangered and Threatened Wildlife and plants; Final rule to list the San Bernardino kangaroo rat as endangered. Federal Register 63:3877-3878.

_____. 2008. Endangered and Threatened Wildlife and Plants; Designation of Critical Habitat for the San Bernardino Kangaroo Rat (*Dipodomys merriamii parvus*); Final Rule. Federal Register 73:61936-62002. (October 1).

_____. 2009. San Bernardino kangaroo rat (*Dipodomys merriamii parvus*), 5-Year Review: Summary and Evaluation. U.S. Fish and Wildlife Service Carlsbad Fish and Wildlife Office, Carlsbad, California. (August 14).

_____. 2010a. Coastal California gnatcatcher (*Polioptila californica californica*), 5-Year Review: Summary and Evaluation. U.S. Fish and Wildlife Service Carlsbad Fish and Wildlife Office, Carlsbad, California. (September 29).

_____. 2010b. Endangered and Threatened Wildlife and Plants; Revised Critical Habitat for Santa Ana Sucker (*Catostomus santaanae*); Final Rule. Federal Register 75:77962-78027. (December 14).

Wheeler, J. 1988. Recent ecological investigations and present status of the endangered Santa Ana River woolly-star, *Eriastrum densifolium* ssp. *sanctorum* (Milliken) Mason. Crossosoma 14(3):1–17.

Wilson, D.E. and S. Ruff (eds.). 1999. Smithsonian Book of North American Mammals. Smithsonian Institution Press, Washington DC.

Wood, Y. and S.G. Wells. 1996. Final report: Characterizing the habitat of slender-horned spineflower (*Dodecahema leptocerus*): Geomorphic analysis. Unpublished report prepared for California Dept. of Fish and Game, Region 5, Long Beach, California.

Young, J.C., T. Zink, and M. Allens. 2000. Slender-horned spineflower (*Dodecahema leptoceras*): Microhabitat characterization of mycorrhizal associations. Report prepared for California Department of Fish and Game, Region 5, San Diego, California.

Zeiner, D. C., W. F. Laudenslayer, Jr., K. E. Mayer, and M. White (eds.). 1990. California's Wildlife. Vol. III. Mammals. California Department of Fish and Wildlife, Sacramento.

Attachment 1 - Figures

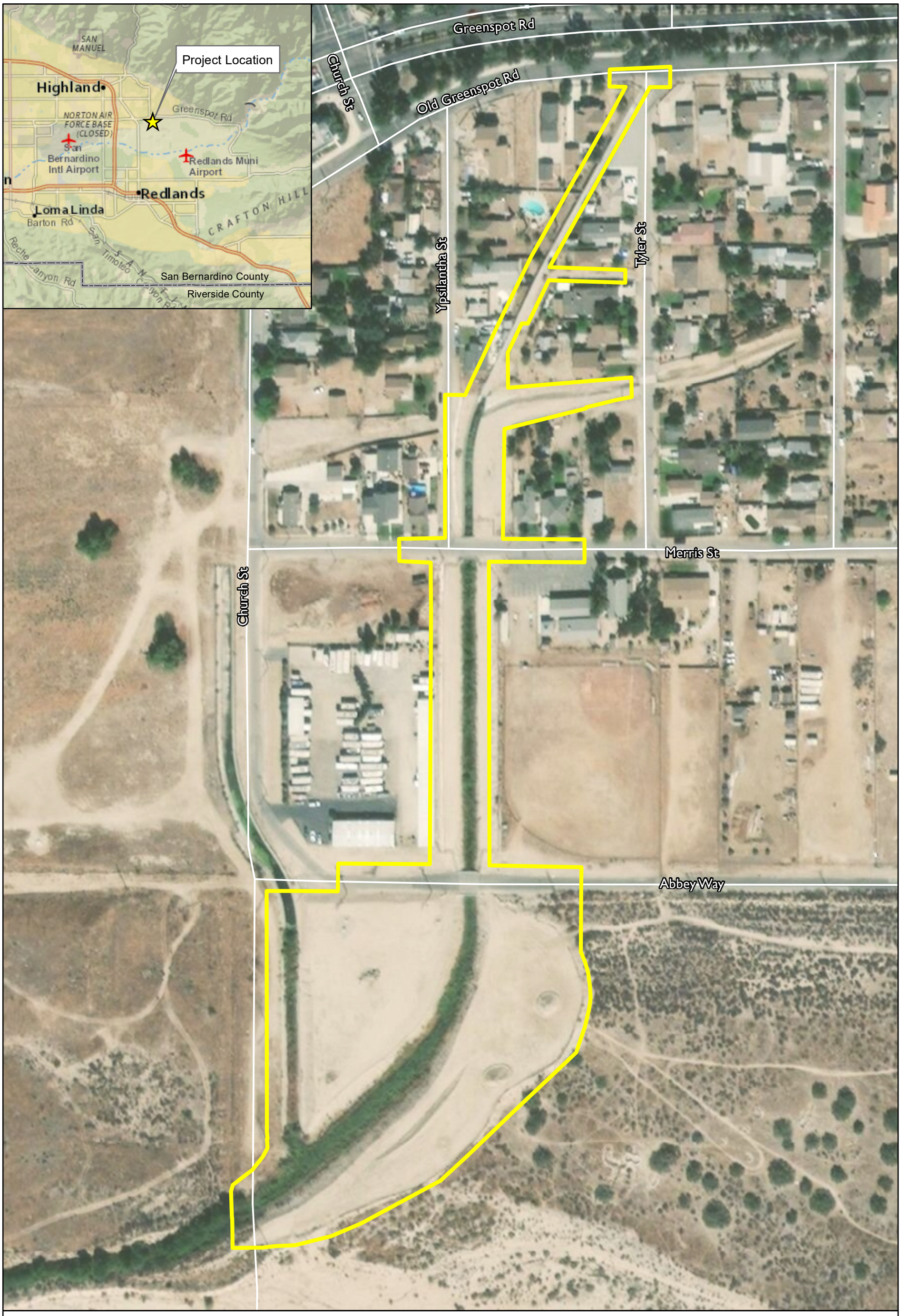

Figure 1.

Project Location

July 2019

Ruby Ct
Greenspot Rd
Church St
Old Greenspot Rd
E 5Th St
E 5Th St
Ypsilantha St
Tyler St
Merris St
Church St
Abbey Way

Project Site

Vegetation and Cover Type

- Annual brome grassland
- Arroyo willow thickets
- California buckwheat scrub
- Cattail marshes
- Developed
- Disturbed
- Mulefat thickets
- Open water
- Scale broom scrub
- Smartweed-cocklebur patches
- Unvegetated wash

N

0 200

Feet

Figure 2.

Vegetation

July 2019

Figure 3.

Biological Resources

July 2019

Attachment 2 – Representative Site Photos

Photo 1: North-facing view Elder Creek Chanel just upstream of Abbey Way.

Photo 2: West-facing view of Santa Ana River woollystar just west of the project site. This is the same general location where a San Bernardino kangaroo rat was captured.

Photo 3: Northeast-facing view of the upland vegetation along the project site that may be temporarily impacted by the project.

Photo 4: West-facing view of upland vegetation that may be temporarily impacted by project construction.

Attachment 3 – Observed Species List

Attachment 3. Observed Species List

Latin Name	Common Name
Vascular Plants	
CUPRESSACEAE	CYPRESS FAMILY
Juniperus californica	California juniper
AMARANTHACEAE	AMARANTH FAMILY
Amaranthus blitoides	Prostrate pigweed
ANACARDIACEAE	CASHEW FAMILY
Rhus ovata	Sugarbush
ASTERACEAE	ASTER FAMILY
Ambrosia acanthicarpa	Annual bur-sage
Artemisia californica	California sagebrush
Artemisia douglasiana	Mugwort
Artemisia dracunculus	Tarragon
Baccharis salicifolia	Mule fat
Bebbia juncea	Sweetbush
Bidens frondosa	Sticktight
Chaenactis glabriuscula	Common yellow chaenactis
Eclipta prostrata	False daisy
Encelia farinosa	Brittlebush
Erigeron bonariensis	Flax-leaved horseweed
Helianthus annuus	Hairy leaved sunflower
Heterotheca grandiflora	Telegraph weed
Heterotheca sessiliflora	Golden aster
* *Hypochaeris glabra*	Smooth cats ear
* *Lactuca serriola*	Prickly lettuce
Lasthenia coronaria	Royal goldfields
Lepidospartum squamatum	Scale-broom
Lessingia glandulifera var. *glandulifera*	Sticky lessingia
Logfia filaginoides	California cottonrose
* *Logfia gallica*	Narrowleaf cottonrose
* *Sonchus asper*	Prickly sow thistle
Stephanomeria pauciflora	Wire lettuce
Symphyotrichum subulatum	Eastern annual saltmarsh aster
Uropappus lindleyi	Silver puffs
Xanthium strumarium	Cocklebur
BORAGINACEAE	BORAGE FAMILY
Amsinckia intermedia	Common fiddleneck
Cryptantha intermedia	Common cryptanth
Emmenanthe penduliflora	Whispering bells
Eriodictyon trichocalyx	Hairy yerba santa
Pectocarya penicillata	Winged pectocarya
Phacelia distans	Common phacelia
Phacelia minor	Wild canterbury bells
Phacelia ramosissima	Branching phacelia
Plagiobothrys canescens	Valley popcorn
BRASSICACEAE	MUSTARD FAMILY
* *Brassica fruticulosa*	Mediterranean cabbage
* *Brassica tournefortii*	Saharan mustard
* *Hirschfeldia incana*	Shortpod mustard
* *Lepidium didymum*	Lesser swine cress
Lepidium nitidum	Shining pepper grass

Attachment 3. Observed Species List

Latin Name	Common Name
Nasturtium officinale	Water cress
* *Raphanus sativus*	Jointed charlock
CACTACEAE	CACTUS FAMILY
Cylindropuntia californica var. *parkeri*	Brownspined pricklypear
Opuntia vaseyi	Vasey's prickly pear
CARYOPHYLLACEAE	PINK FAMILY
Loeflingia squarrosa	Spreading loeflingia
* *Stellaria media*	Chickweed
CHENOPODIACEAE	GOOSEFOOT FAMILY
Chenopodium album	Lambs quarters
Chenopodium berlandieri	Pit seed goosefoot
Chenopodium sp.	Unid. goosefoot
* *Dysphania ambrosioides*	Mexican tea
* *Salsola tragus*	Russian thistle
CONVOLVULACEAE	MORNING-GLORY FAMILY
Calystegia sp.	Unid. Morning-glory
CRASSULACEAE	STONECROP FAMILY
Crassula connata	Sand pygmy weed
EUPHORBIACEAE	SPURGE FAMILY
Croton californicus	California croton
* *Euphorbia maculata*	Spotted spurge
* *Ricinus communis*	Castor bean
FABACEAE	LEGUME FAMILY, PEA FAMILY
Acmispon glaber	Deerweed
* *Bauhinia variegata*	Mountain ebony
Lupinus hirsutissimus	Stinging lupine
Lupinus truncatus	Blunt leaved lupine
* *Melilotus albus*	White sweetclover
* *Spartium junceum*	Spanish broom
GERANIACEAE	CERANIUM FAMILY
Erodium botrys	Big heron bill
LAMIACEAE	MINT FAMILY
* *Lamium amplexicaule*	Henbit
Salvia columbariae	Chia
LEMNACEAE	DUCKWEED FAMILY
Lemna minuta (?)	Least duckweed
LYTHRACEAE	LOOSESTRIFE FAMILY
Ammannia coccinea	Red ammannia
MALVACEAE	MALLOW FAMILY
* *Malva parviflora*	Cheeseweed
MORACEAE	FIG FAMILY
* *Morus alba*	White mulberry
ONAGRACEAE	EVENING-PRIMROSE FAMILY
Camissoniopsis bistorta	California sun cup
Epilobium ciliatum	Willow-herb
Eulobus californicus	California primrose
Oenothera elata ssp. *hirsutissima*	Great marsh evening primrose
PAPAVERACEAE	POPPY FAMILY
Dendromecon rigida	Bush poppy
PHRYMACEAE	LOPSEED FAMILY
Erythranthe cardinalis	Cardinal monkey flower

Attachment 3. Observed Species List

Latin Name	Common Name
Erythranthe guttata	Seep monkeyflower
PLANTAGINACEAE	PLANTAIN FAMILY
* *Plantago lanceolata*	English plantain, rib-grass
* *Veronica anagallis-aquatica*	Water speedwell
PLATANACEAE	SYCAMORE FAMILY
Platanus racemosa	California sycamore
POLEMONIACEAE	PHLOX FAMILY
** *Eriastrum densifolium* ssp. *sanctorum*	Santa Ana River woollystar
POLYGONACEAE	BUCKWHEAT FAMILY
Eriogonum elongatum	Longstem buckwheat
Eriogonum fasciculatum	California buckwheat
Eriogonum gracile var. *gracile*	Slender buckwheat
Lastarriaea coriacea	Leather spineflower
Persicaria lapathifolium	Willow weed, willow smartweed
Persicaria punctata	Dotted smartweed
* *Polygonum aviculare*	Common knotweed
* *Rumex crispus*	Curly dock
PORTULACACEAE	PURSLANE FAMILY
* *Portulaca oleracea*	Common purslane
RHAMNACEAE	BUCKTHORN FAMILY
Rhamnus crocea	Redberry
SALICACEAE	WILLOW FAMILY
Populus fremontii	Fremont cottonwood
Salix exigua	Narrow-leaf willow
Salix gooddingii	Goodding's black willow
Salix laevigata	Red willow
Salix lasiandra	Pacific willow
Salix lasiolepis	Arroyo willow
SAPINDACEAE	SOAPBERRY FAMILY
* *Koelreuteria bipinnata*	Goldenrain tree
SCROPHULARIACEAE	FIGWORT FAMILY
* *Verbascum thapsus*	Woolly mullein
* *Verbascum virgatum*	Wand mullein
SIMAROUBACEAE	QUASSIA FAMILY
* *Ailanthus altissima*	Tree of heaven
SOLANACEAE	NIGHTSHADE FAMILY
Datura wrightii	Jimsonweed, tolguacha
* *Nicotiana glauca*	Tree tobacco
Solanum sp.	Unid. Nightshade
TAMARICACEAE	TAMARISK FAMILY
* *Tamarix ramosissima*	Tamarisk
ZYGOPHYLLACEAE	CALTROP FAMILY
* *Tribulus terrestris*	Puncture vine
ARECACEAE	PALM FAMILY
* *Washingtonia robusta*	Mexican fan palm
CYPERACEAE	SEDGE FAMILY
Cyperus eragrostis	Tall umbrella sedge
Cyperus esculentus	Nut grass
* *Cyperus niger*	Black flatsedge
Eleocharis acicularis	Needle spikerush
POACEAE	GRASS FAMILY

Attachment 3. Observed Species List

Latin Name	**Common Name**
* *Agrostis stolonifera*	Redtop
* *Avena fatua*	Wild oat
* *Bromus catharticus*	Rescue grass
* *Bromus diandrus*	Ripgut brome
* *Bromus hordeaceus*	Soft chess
* *Bromus madritensis* ssp. *rubens*	Red brome
* *Bromus tectorum*	Downy chess
* *Cynodon dactylon*	Bermuda grass
* *Digitaria sanguinalis*	Crabgrass
* *Echinochloa colona*	Jungle rice
* *Eragrostis cilianensis*	Stinkgrass
* *Festuca perennis*	Awned Italian ryegrass
* *Festuca myuros*	Rattail sixweeks grass
Hordeum sp.	Unid. Barley
* *Leptochloa fusca* ssp. *uninervia*	Mexican sprangletop
* *Paspalum dilatatum*	Dallis grass
* *Polypogon monspeliensis*	Rabbitsfoot grass
* *Polypogon viridis*	Water bentgrass
* *Setaria parviflora*	Marsh bristlegrass
* *Sorghum halepense*	Johnsongrass
* *Stenotaphrum secundatum*	St. Augustine grass
* *Piptatherum miliaceum*	Smilograss
THEMIDACEAE	BRODIAEA FAMILY
Dichelostemma capitatum	Blue dicks
TYPHACEAE	CATTAIL FAMILY
Typha domingensis	Cattail
Typha latifolia	Broad-leaved cattail
VERTEBRATE ANIMALS	
REPTILIA	REPTILES
HYLIDAE	TRUE TREEFROGS
Pseudacris regilla	Pacific chorus frog
PHRYNOSOMATIDAE	LIZARDS
Sceloporus occidentalis	Western fence lizard
Uta stansburiana	Side-blotched lizard
VIPERIDAE	RATTLESNAKES
Crotalus oreganus helleri	Southern Pacific rattlesnake
AVES	BIRDS
CHARADRIIDAE	PLOVERS
Charadrius vociferus	Killdeer
ANATIDAE	DUCKS
Anas platyrhynchos	Mallard
GALLIFORMES	NEW WORLD QUAIL
Callipepla californica	California quail
ACCIPITRIDAE	HAWKS, EAGLES, HARRIERS
Buteo jamaicensis	Red-tailed hawk
Falco sparverius	American kestrel
COLUMBIDAE	PIGEONS, DOVES
* *Columba livia*	Rock dove

Attachment 3. Observed Species List

Latin Name	Common Name
Zenaida macroura	Mourning dove
CORVIDAE	CROWS, JAYS, MAGPIES
Corvus corax	Common raven
Aphelocoma californica	California scrub-jay
TROCHILIDAE	HUMMINGBIRDS
Calypte anna	Anna's hummingbird
HIRUNDINIDAE	SWALLOWS
Stelgidopteryx serripennis	Northern rough-winged swallow
TYRANNIDAE	TYRANT FLYCATCHERS
Sayornis nigricans	Black phoebe
Sayornis saya	Say's phoebe
Tyrannus vociferans	Cassin's Kingbird
FRINGILLIDAE	FINCHES
Carduelis psaltria	Lesser goldfinch
Carpodacus mexicanus	House finch
TROGLODTIDAE	WRENS
Thryomanes bewickii	Bewick's wren
POLIOPTILIDAE	GNATCATCHERS
Polioptila caerulea	Blue-gray gnatcatcher
MIMIDAE	MIMIDS
Mimus polyglottos	Northern mockingbird
STURNIDAE	STARLINGS
Sturnis vulgaris	European Starling
EMBERIZIDAE	SPARROWS AND TANAGERS
Melospiza melodia	Song sparrow
Melozone crissalis	California towhee
Zonotrichia leucophrys	White-crowned sparrow
ICTERIDAE	ORIOLES, BLACKBIRDS
Agelaius phoeniceus	Red-winged Blackbird
PASSERIDAE	OLD WORLD SPARROWS
Passer domesticus	House sparrow
MAMMALIA	
CRICETIDAE	VOLES, RATS, MICE
** *Neotoma lepida intermedia*	Desert woodrat
Peromyscus fraterculus	Northern Baja deer mouse
Peromyscus maniculatus	Deer mouse
Reithrodontomys megalotis	Western harvest mouse
HETEROMYIDAE	KANGAROO RATS, POCKET MICE
** *Chaetodipus fallax fallax*	Northwest San Diego pocket mouse
** *Dipodomys merriami parvus*	San Bernardino kangaroo rat
** *Perognathus longimembris brevinasus*	Los Angeles pocket mouse
LAGOMORPHIDAE	RABBITS, HARES
Sylvilagus audubonii	Desert cottontail
SCIURIDAE	SQUIRRELS
Otospermophilus beecheyi	California ground squirrel

Attachment 3. Observed Species List

Latin Name	Common Name
PROCYONIDAE	RACOONS AND RINGTAILS
Procyon lotor	Racoon
CANIDAE	DOGS, WOLVES, COYOTES
* *Canis familiaris*	Domestic dog
Canis latrans	Coyote

Species introduced to California are indicated by an asterisk. Special-status species are indicated by two asterisks. This list includes only species observed within the survey area. Other species may have been overlooked or unidentifiable due to season. Plants were identified using keys, descriptions, and illustrations in Baldwin et al (2012) and other regional references. Wildlife taxonomy and nomenclature generally follow Stebbins (2003) for amphibians and reptiles, AOU (1998) for birds, and Wilson and Ruff (1999) for mammals.

Attachment 4 – CNDDB Query Results

Selected Elements by Scientific Name

California Department of Fish and Wildlife

California Natural Diversity Database

Query Criteria: Quad IS (Keller Peak (3411721) OR Harrison Mtn. (3411722) OR Redlands (3411712) OR Yucaipa (3411711) OR San Bernardino South (3411713) OR San Bernardino North (3411723))

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Accipiter cooperii Cooper's hawk	ABNKC12040	None	None	G5	S4	WL
Agelaius tricolor tricolored blackbird	ABPBXB0020	None	Threatened	G2G3	S1S2	SSC
Aimophila ruficeps canescens southern California rufous-crowned sparrow	ABPBX91091	None	None	G5T3	S3	WL
Allium howellii var. clokeyi Mt. Pinos onion	PMLIL02161	None	None	G4T2	S2	1B.3
Anniella stebbinsi southern California legless lizard	ARACC01060	None	None	G3	S3	SSC
Antrozous pallidus pallid bat	AMACC10010	None	None	G5	S3	SSC
Arenaria paludicola marsh sandwort	PDCAR040L0	Endangered	Endangered	G1	S1	1B.1
Arizona elegans occidentalis California glossy snake	ARADB01017	None	None	G5T2	S2	SSC
Artemisiospiza belli belli Bell's sage sparrow	ABPBX97021	None	None	G5T2T3	S3	WL
Aspidoscelis hyperythra orange-throated whiptail	ARACJ02060	None	None	G5	S2S3	WL
Aspidoscelis tigris stejnegeri coastal whiptail	ARACJ02143	None	None	G5T5	S3	SSC
Astragalus hornii var. hornii Horn's milk-vetch	PDFAB0F421	None	None	G4G5T1T2	S1	1B.1
Athene cunicularia burrowing owl	ABNSB10010	None	None	G4	S3	SSC
Baeolophus inornatus oak titmouse	ABPAW01100	None	None	G4	S4	
Batrachoseps gabrieli San Gabriel slender salamander	AAAAD02110	None	None	G2G3	S2S3	
Berberis nevinii Nevin's barberry	PDBER060A0	Endangered	Endangered	G1	S1	1B.1
Bombus crotchii Crotch bumble bee	IIHYM24480	None	None	G3G4	S1S2	
Bombus morrisoni Morrison bumble bee	IIHYM24460	None	None	G4G5	S1S2	
Brodiaea filifolia thread-leaved brodiaea	PMLIL0C050	Threatened	Endangered	G2	S2	1B.1

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Buteo swainsoni Swainson's hawk	ABNKC19070	None	Threatened	G5	S3	
Calochortus palmeri var. palmeri Palmer's mariposa-lily	PMLIL0D122	None	None	G3T2	S2	1B.2
Calochortus plummerae Plummer's mariposa-lily	PMLIL0D150	None	None	G4	S4	4.2
Canyon Live Oak Ravine Forest Canyon Live Oak Ravine Forest	CTT61350CA	None	None	G3	S3.3	
Carex comosa bristly sedge	PMCYP032Y0	None	None	G5	S2	2B.1
Carolella busckana Busck's gallmoth	IILEM2X090	None	None	G1G3	SH	
Castilleja cinerea ash-gray paintbrush	PDSCR0D0H0	Threatened	None	G1G2	S1S2	1B.2
Castilleja lasiorhyncha San Bernardino Mountains owl's-clover	PDSCR0D410	None	None	G2?	S2?	1B.2
Catostomus santaanae Santa Ana sucker	AFCJC02190	Threatened	None	G1	S1	
Centromadia pungens ssp. laevis smooth tarplant	PDAST4R0R4	None	None	G3G4T2	S2	1B.1
Chaetodipus fallax fallax northwestern San Diego pocket mouse	AMAFD05031	None	None	G5T3T4	S3S4	SSC
Charina umbratica southern rubber boa	ARADA01011	None	Threatened	G2G3	S2S3	
Chloropyron maritimum ssp. maritimum salt marsh bird's-beak	PDSCR0J0C2	Endangered	Endangered	G4?T1	S1	1B.2
Chorizanthe parryi var. parryi Parry's spineflower	PDPGN040J2	None	None	G3T2	S2	1B.1
Chorizanthe xanti var. leucotheca white-bracted spineflower	PDPGN040Z1	None	None	G4T3	S3	1B.2
Coccyzus americanus occidentalis western yellow-billed cuckoo	ABNRB02022	Threatened	Endangered	G5T2T3	S1	
Coleonyx variegatus abbotti San Diego banded gecko	ARACD01031	None	None	G5T3T4	S1S2	SSC
Crotalus ruber red-diamond rattlesnake	ARADE02090	None	None	G4	S3	SSC
Cuscuta obtusiflora var. glandulosa Peruvian dodder	PDCUS01111	None	None	G5T4?	SH	2B.2
Diadophis punctatus modestus San Bernardino ringneck snake	ARADB10015	None	None	G5T2T3	S2?	
Dipodomys merriami parvus San Bernardino kangaroo rat	AMAFD03143	Endangered	None	G5T1	S1	SSC

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Dipodomys stephensi Stephens' kangaroo rat	AMAFD03100	Endangered	Threatened	G2	S2	
Dodecahema leptoceras slender-horned spineflower	PDPGN0V010	Endangered	Endangered	G1	S1	1B.1
Elanus leucurus white-tailed kite	ABNKC06010	None	None	G5	S3S4	FP
Empidonax traillii extimus southwestern willow flycatcher	ABPAE33043	Endangered	Endangered	G5T2	S1	
Eremophila alpestris actia California horned lark	ABPAT02011	None	None	G5T4Q	S4	WL
Eriastrum densifolium ssp. sanctorum Santa Ana River woollystar	PDPLM03035	Endangered	Endangered	G4T1	S1	1B.1
Euchloe hyantis andrewsi Andrew's marble butterfly	IILEPA5032	None	None	G3G4T1	S1	
Eumops perotis californicus western mastiff bat	AMACD02011	None	None	G5T4	S3S4	SSC
Euphydryas editha quino quino checkerspot butterfly	IILEPK405L	Endangered	None	G5T1T2	S1S2	
Falco columbarius merlin	ABNKD06030	None	None	G5	S3S4	WL
Fimbristylis thermalis hot springs fimbristylis	PMCYP0B0N0	None	None	G4	S1S2	2B.2
Galium californicum ssp. primum Alvin Meadow bedstraw	PDRUB0N0E6	None	None	G5T2	S2	1B.2
Gila orcuttii arroyo chub	AFCJB13120	None	None	G2	S2	SSC
Glaucomys oregonensis californicus San Bernardino flying squirrel	AMAFB09021	None	None	G5T1T2	S1S2	SSC
Haliaeetus leucocephalus bald eagle	ABNKC10010	Delisted	Endangered	G5	S3	FP
Helianthus nuttallii ssp. parishii Los Angeles sunflower	PDAST4N102	None	None	G5TH	SH	1A
Heuchera parishii Parish's alumroot	PDSAX0E0S0	None	None	G3	S3	1B.3
Horkelia cuneata var. puberula mesa horkelia	PDROS0W045	None	None	G4T1	S1	1B.1
Icteria virens yellow-breasted chat	ABPBX24010	None	None	G5	S3	SSC
Imperata brevifolia California satintail	PMPOA3D020	None	None	G4	S3	2B.1
Ivesia argyrocoma var. argyrocoma silver-haired ivesia	PDROS0X021	None	None	G2T2	S2	1B.2

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Lampropeltis zonata (parvirubra)	ARADB19062	None	None	G4G5	S2?	WL
California mountain kingsnake (San Bernardino population)						
Lanius ludovicianus	ABPBR01030	None	None	G4	S4	SSC
loggerhead shrike						
Lasiurus xanthinus	AMACC05070	None	None	G5	S3	SSC
western yellow bat						
Laterallus jamaicensis coturniculus	ABNME03041	None	Threatened	G3G4T1	S1	FP
California black rail						
Lepidium virginicum var. robinsonii	PDBRA1M114	None	None	G5T3	S3	4.3
Robinson's pepper-grass						
Leptonycteris yerbabuenae	AMACB03030	Delisted	None	G4	S1	SSC
lesser long-nosed bat						
Lepus californicus bennettii	AMAEB03051	None	None	G5T3T4	S3S4	SSC
San Diego black-tailed jackrabbit						
Lilium parryi	PMLIL1A0J0	None	None	G3	S3	1B.2
lemon lily						
Lycium parishii	PDSOL0G0D0	None	None	G4	S1	2B.3
Parish's desert-thorn						
Malacothamnus parishii	PDMAL0Q0C0	None	None	GXQ	SX	1A
Parish's bush-mallow						
Monardella macrantha ssp. hallii	PDLAM180E1	None	None	G5T3	S3	1B.3
Hall's monardella						
Monardella pringlei	PDLAM180J0	None	None	GX	SX	1A
Pringle's monardella						
Nasturtium gambelii	PDBRA270V0	Endangered	Threatened	G1	S1	1B.1
Gambel's water cress						
Neotamias speciosus speciosus	AMAFB02172	None	None	G4T2T3	S2S3	
lodgepole chipmunk						
Neotoma lepida intermedia	AMAFF08041	None	None	G5T3T4	S3S4	SSC
San Diego desert woodrat						
Nyctinomops femorosaccus	AMACD04010	None	None	G4	S3	SSC
pocketed free-tailed bat						
Oncorhynchus mykiss irideus pop. 10	AFCHA0209J	Endangered	None	G5T1Q	S1	
steelhead - southern California DPS						
Onychomys torridus ramona	AMAFF06022	None	None	G5T3	S3	SSC
southern grasshopper mouse						
Packera bernardina	PDAST8H0E0	None	None	G2	S2	1B.2
San Bernardino ragwort						
Perideridia parishii ssp. parishii	PDAPI1N0C2	None	None	G4T3T4	S2	2B.2
Parish's yampah						
Perognathus alticola alticola	AMAFD01081	None	None	G1G2TH	SH	SSC
white-eared pocket mouse						

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Perognathus longimembris brevinasus Los Angeles pocket mouse	AMAFD01041	None	None	G5T1T2	S1S2	SSC
Phrynosoma blainvillii coast horned lizard	ARACF12100	None	None	G3G4	S3S4	SSC
Polioptila californica californica coastal California gnatcatcher	ABPBJ08081	Threatened	None	G4G5T2Q	S2	SSC
Rana draytonii California red-legged frog	AAABH01022	Threatened	None	G2G3	S2S3	SSC
Rana muscosa southern mountain yellow-legged frog	AAABH01330	Endangered	Endangered	G1	S1	WL
Rhaphiomidas terminatus abdominalis Delhi Sands flower-loving fly	IIDIP05021	Endangered	None	G1T1	S1	
Rhinichthys osculus ssp. 3 Santa Ana speckled dace	AFCJB3705K	None	None	G5T1	S1	SSC
Ribes divaricatum var. parishii Parish's gooseberry	PDGRO020F3	None	None	G5TX	SX	1A
Riversidian Alluvial Fan Sage Scrub Riversidian Alluvial Fan Sage Scrub	CTT32720CA	None	None	G1	S1.1	
Salvadora hexalepis virgultea coast patch-nosed snake	ARADB30033	None	None	G5T4	S2S3	SSC
Schoenus nigricans black bog-rush	PMCYP0P010	None	None	G4	S2	2B.2
Senecio aphanactis chaparral ragwort	PDAST8H060	None	None	G3	S2	2B.2
Setophaga petechia yellow warbler	ABPBX03010	None	None	G5	S3S4	SSC
Sidalcea hickmanii ssp. parishii Parish's checkerbloom	PDMAL110A3	None	Rare	G3T1	S1	1B.2
Sidalcea malviflora ssp. dolosa Bear Valley checkerbloom	PDMAL110FH	None	None	G5T2	S2	1B.2
Sidalcea neomexicana salt spring checkerbloom	PDMAL110J0	None	None	G4	S2	2B.2
Sidalcea pedata bird-foot checkerbloom	PDMAL110L0	Endangered	Endangered	G1	S1	1B.1
Southern Coast Live Oak Riparian Forest Southern Coast Live Oak Riparian Forest	CTT61310CA	None	None	G4	S4	
Southern Cottonwood Willow Riparian Forest Southern Cottonwood Willow Riparian Forest	CTT61330CA	None	None	G3	S3.2	
Southern Mixed Riparian Forest Southern Mixed Riparian Forest	CTT61340CA	None	None	G2	S2.1	
Southern Riparian Forest Southern Riparian Forest	CTT61300CA	None	None	G4	S4	

Species	Element Code	Federal Status	State Status	Global Rank	State Rank	Rare Plant Rank/CDFW SSC or FP
Southern Riparian Scrub	CTT63300CA	None	None	G3	S3.2	
Southern Riparian Scrub						
Southern Sycamore Alder Riparian Woodland	CTT62400CA	None	None	G4	S4	
Southern Sycamore Alder Riparian Woodland						
Southern Willow Scrub	CTT63320CA	None	None	G3	S2.1	
Southern Willow Scrub						
Spea hammondii	AAABF02020	None	None	G3	S3	SSC
western spadefoot						
Sphenopholis obtusata	PMPOA5T030	None	None	G5	S2	2B.2
prairie wedge grass						
Streptanthus bernardinus	PDBRA2G060	None	None	G3G4	S3S4	4.3
Laguna Mountains jewelflower						
Streptanthus campestris	PDBRA2G0B0	None	None	G3	S3	1B.3
southern jewelflower						
Symphyotrichum defoliatum	PDASTE80C0	None	None	G2	S2	1B.2
San Bernardino aster						
Taxidea taxus	AMAJF04010	None	None	G5	S3	SSC
American badger						
Thamnophis hammondii	ARADB36160	None	None	G4	S3S4	SSC
two-striped gartersnake						
Thelypteris puberula var. sonorensis	PPTHE05192	None	None	G5T3	S2	2B.2
Sonoran maiden fern						
Vireo bellii pusillus	ABPBW01114	Endangered	Endangered	G5T2	S2	
least Bell's vireo						

Record Count: 115

Attachment 5 – Special-Status Species Not Addressed

Attachment 5. Special-status species not addressed

Scientific Name	Common Name	Reason for Exclusion
PLANTS		
Allium howellii var. *clokeyi*	Mt. Pinos onion	Well below elevation range.
Arenaria paludicola	Marsh sandwort	No suitable alkali habitat.
Astragalus hornii var. *hornii*	Horn's milk-vetch	No suitable alkali habitat.
Berberis nevinii	Nevin's barberry	Large shrub, no records within 5 miles.
Brodiaea filifolia	Thread-leaved brodiaea	No suitable clay soils.
Calochortus palmeri var. *palmeri*	Palmer's mariposa-lily	Well below elevation range.
Carex comosa	Bristly sedge	No suitable wetland or other mesic habitat.
Castilleja cinerea	Ash-gray paintbrush	Well below elevation range, no suitable montane habitat.
Castilleja lasiorhyncha	San Bernardino Mountains owl's-clover	Well below elevation range, no suitable montane habitat.
Centromadia pungens ssp. *laevis*	Smooth tarplant	No suitable alkali substrates.
Chloropyron maritimum ssp. *maritimum*	Salt marsh bird's-beak	No suitable alkali substrates.
Cuscuta obtusiflora var. *glandulosa*	Peruvian dodder	No suitable wetland or other mesic habitat.
Fimbristylis thermalis	Hot springs fimbristylis	No suitable wetland or other mesic habitat.
Galium californicum ssp. *primum*	Alvin Meadow bedstraw	Outside of species' geographic range.
Helianthus nuttallii ssp. *parishii*	Los Angeles sunflower	Considered to be extirpated.
Heuchera parishii	Parish's alumroot	Well below elevation range, no suitable montane habitat.
Horkelia cuneate var. *puberula*	Mesa horkelia	Outside of species' geographic range.
Imperata brevifolia	California satintail	No suitable wetland or mesic habitat.
Ivesia argyrocoma var. *argyrocoma*	Silver-haired ivesia	Well below elevation range, no suitable montane habitat.
Lilium parryi	Lemon lily	No suitable mesic meadow habitat, well below the elevational range.
Malacothamnus parishii	Parish's bush-mallow	Not likely to be a recognized species.
Monardella macrantha ssp. hallii	Hall's monardella	Below elevation range.
Monardella pringlei	Pringle's monardella	No suitable sand habitat, likely north of the species' geographic range.
Nasturtium gambelii	Gambel's water cress	No suitable wetland, extirpated from southern CA.
Packera bernardina	San Bernardino ragwort	Outside of geographic range.
Perideridia parishii ssp. *parishii*	Parish's yampah	Outside of geographic range.
Ribes divaricatum var. *parishii*	Parish's gooseberry	No suitable riparian of wetland habitat
Schoenus nigricans	Black bog-rush	No suitable wetland or mesic habitat.
Senecio aphanactis	Chaparral ragwort	Outside of species' geographic range.
Sidalcea hickmanii ssp. *parishii*	Parish's checkerbloom	Outside of geographic range.
Sidalcea malviflora ssp. *dolosa*	Bear Valley checkerbloom	Outside of geographic range.
Sidalcea neomexicana	Salt Spring checkerbloom	No suitable alkali substrate.
Sidalcea pedata	bird-foot checkerbloom	Outside of geographic range.
Sphenopholis obtusata	Prairie wedge grass	No suitable wetland or mesic habitat.
Streptanthus bernardinus	Laguna Mountains jewelflower	Well below the elevational range.
Streptanthus campestris	Southern jewelflower	Well below the elevational range.

Attachment 5. Special-status species not addressed

Scientific Name	Common Name	Reason for Exclusion
Symphyotrichum defoliatum	San Bernardino aster	No suitable wetland or mesic habitat.
Thelypteris puberula var. *sonorensis*	Sonoran maiden fern	No suitable mesic canyon habitat.
INVERTEBRATES AND MOLLUSCS		
Bombus morrisoni	Morrison bumble bee	Outside of species' geographic range.
Carolella busckana	Busck's gallmoth	Outside of species' geographic range, considered to be extirpated.
Euchloe hyantis andrewsi	Andrew's marble butterfly	Well below elevation range.
Euphydryas editha quino	Quino checkerspot butterfly	Outside of species' geographic range.
Rhaphiomidas terminatus abdominalis	Delhi Sands flower-loving fly	No suitable Delhi Sands on or near the project site.
FISHES		
Catostomus santaanae	Santa Ana sucker	No perennial aquatic habitat present.
Gila orcuttii	Arroyo chub	No perennial aquatic habitat present.
Oncorhynchus mykiss irideus	Steelhead - South California DPS	No perennial aquatic habitat present.
Rhinichthys osculus ssp. 3	Santa Ana speckled dace	No perennial aquatic habitat present.
AMPHIBIANS		
Batrachoseps gabrieli	San Gabriel slender salamander	Outside of species' geographic range, no suitable habitat present.
Rana draytonii	California red-legged frog	No suitable habitat, no extant occurrences within 5 miles.
Rana muscosa	Southern mountain yellow-legged frog	No suitable habitat.
Spea hammondii	Western spadefoot	No suitable breeding pools.
REPTILES		
Aspidoscelis hyperythra	Orange-throat whiptail	Outside of species' geographic range.
Charina umbratical	Southern rubber boa	Well below elevation range.
Coleonyx variegatus abbotti	San Diego banded gecko	No suitable granite outcrops.
Crotalus ruber	Red-diamond rattlesnake	Outside of species' geographic range.
Diadophis punctatus modestus	San Bernardino ringneck snake	Well below elevation range.
Lampropeltis zonata parvirubra	California mountain kingsnake	Well below elevation range.
BIRDS		
Baeolophus inoratus	Oak titmouse	No suitable oak woodland habitat.
Coccyzus americanus occidentalis	Western yellow-billed cuckoo	No suitable riparian habitat.
Empidonax traillii extimus	Southwestern willow flycatcher	No suitable riparian habitat.
Haliaeetus leucocephalus	Bald eagle	No suitable nesting or foraging habitat.
Laterllus jamaicensis coturniculus	California black rail	No suitable marsh habitat.
MAMMALS		
Dipodomys stephensi	Stephen's kangaroo rat	Outside of species' geographic range.
Glaucomys oregonensis californicus	San Bernardino flying squirrel	Outside of species' geographic range.
Leptonycteris yerbabuenae	Lesser long-nosed bat	Outside of species' geographic range.
Neotamias speciosus	Lodgepole chipmunk	Outside of species' geographic range.
Onychomys torridus ramona	Southern grasshopper mouse	Outside of species' geographic range.
Perognathus alticola	White-eared pocket mouse	Outside of species' geographic range.