GENERAL BIOLOGICAL RESOURCE AND HABITAT SUITABILITY ASSESSMENT

COUNTY OF SAN BERNARDINO FIRE STATION #227
Assessor's Parcel Number: 015-428-101



City of San Bernardino
San Bernardino County
California

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1.0 INTRODUCTION

At the request of STK Architecture, Inc., this biological resource assessment report (BRAR) was prepared by WSP USA Environment & Infrastructure Inc. (WSP) for the proposed civic redevelopment of a piece of Assessor's Parcel Number (APN) 015-428-101 for the San Bernardino County Fire Station 227 (project) located in the City of San Bernardino, San Bernardino County, California (Figure 1). Information contained herein is intended to be used for compliance with the California Environmental Quality Act (CEQA), as well as federal and California Endangered Species Acts.

2.0 SITE / PROJECT DESCRIPTION

The project includes building a new fire station to replace the existing Fire Station #227. The 10,764 sq ft building will include a 3-bay apparatus for (2) Type 1 engines, (1) medic ambulance, and (1) future ladder truck, in accordance with county fire requirements. It will also include (9) crew members sleeping quarters, (5) single-use toilet/sink-shower combos, a lobby for public service, administration space, a common living space, day room, dining room, kitchen, study, gym, laundry room, storage for gear, equipment, and accessories, a public unisex restroom, and a data communications system with emergency power. The site will be paved with concrete and include an additional storage building (400 sq ft), one steel roofed parking lot canopy (1,400 sq ft), a 1,000-gallon fuel tank, and a back-up generator.

The project site is on an approximate 1.21-acre site located on an approximate 5.3-acre parcel at the northwest junction of 38th Street and Genevieve Street in San Bernardino, San Bernardino County, California (Figure 1). The entire parcel is already developed as part of the existing Arrowhead Elementary School, but the new fire station will occupy the southern portion of the existing school playfield. The lot will be split with entitlement. The site is within Section 00, Township 1 North, Range 4 West, United States Geological Survey (USGS) 7.5' San Bernardino North, Calif. Quadrangle. Elevations on the project site are approximately 390-391 meters (m) (1280-1283 feet [ft]) above mean sea level (Figure 2).

The project site currently consists of a landscaped grass playfield. Surrounding, adjacent land uses include developed civic/public space to the north and east, developed residential space (multi-family homes) to the south, and a landscaped strip along the west property line with more developed residential space (single family homes) just on the other side. The greater surrounding area is densely developed, consisting of a majority of residential space in all directions, and more public/civic space that is intermittently present. There are very few small areas of open, undeveloped space present in proximity to the site, mainly occurring along the hillsides a few parcels away, to the west.

3.0 REGULATORY FRAMEWORK

3.1 Federal

3.1.1 Federal Endangered Species Act

The United States Fish and Wildlife Service (USFWS) and the National Marine Fisheries Service are the designated federal agencies accountable for administering the federal Endangered Species Act (FESA). The FESA defines species as "endangered" or "threatened" and provides regulatory protection at the federal level.

- Section 9 of the FESA prohibits the "take" of listed (i.e., endangered or threatened) species. The FESA definition of take is "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in such conduct." Recognizing that take cannot always be avoided, Section 10(a) includes provisions for take that is incidental to, but not the purpose of, otherwise lawful activities. Specifically, Section 10(a)(1)(A) permits (authorized take permits) are issued for scientific purposes Section 10(a)(1)(B) permits (incidental take permits) are issued for the incidental take of listed species that does not jeopardize the species.
- Section 7 (a)(2) requires federal agencies to evaluate the proposed project with respect to listed or proposed listed, species and their respective critical habitat (if applicable). Federal agencies must employ programs for the conservation of listed species and are prohibited from authorizing, funding, or carrying out any action that would jeopardize a listed species or destroy or modify its "critical habitat." As defined by the FESA, "individuals, organizations, states, local governments, and other nonfederal entities are affected by the designation of critical habitat only if their actions occur on federal lands, require a federal permit, license, or other authorization, or involve federal funding.
- Section 10(a) of the FESA authorizes the issuance of incidental take permits and establishes standards for the content of habitat conservation plans (HCP). The CVMSHCP is an HCP, see discussion below.

3.1.2 Migratory Bird Treaty Act

Treaties signed by the United States, Great Britain, Mexico, Japan, and the countries of the former Soviet Union make it unlawful to pursue, capture, kill, and/or possess, or attempt to engage in any such conduct to any migratory bird, nest, egg or parts thereof listed in this document. The Secretary of the Interior can issue permits for incidental take of migratory bird species. The Migratory Bird Treaty Act (MBTA) also allows the Secretary of the Interior to grant permits for specific actions for the incidental take of these protected migratory bird species, but this rarely occurs.

3.2 State

3.2.1 California Environmental Quality Act

The basic goal of the CEQA is to maintain a high-quality environment now and in the future and the specific goals are for California's public agencies to:

1) Identify the significant environmental effects of their actions; and, either

2) Avoid those significant environmental effects, where feasible; or

3) Mitigate those significant environmental effects, where feasible.

The CEQA applies to "projects" proposed to be undertaken or requiring approval by State and local government agencies. Projects are activities which have the potential to have a physical impact on the environment and may include the enactment of zoning ordinances, the issuance of conditional use permits and the approval of tentative subdivision maps. Where a project requires approvals from more than one public agency, the CEQA requires one of these public agencies to serve as the "lead agency."

A "lead agency" must complete the environmental review process required by the CEQA. The most basic steps of the environmental review process are:

1) Determine if the activity is a "project" subject to the CEQA

2) Determine if the "project" is exempt from the CEQA

3) Perform an Initial Study to identify the environmental impacts of the project and determine whether the identified impacts are "significant". Based on its findings of "significance", the lead agency prepares one of the following environmental review documents:

   a) Negative Declaration if it finds no "significant" impacts

   b) Mitigated Negative Declaration if it finds "significant" impacts but revises the project to avoid or mitigate those significant impacts

   c) Environmental Impact Report (EIR) if it finds "significant" impacts.

While there is no ironclad definition of "significance", Article 5 of the CEQA Guidelines provides criteria to lead agencies in determining whether a project may have significant effects.

The purpose of an EIR is to provide State and local agencies and the general public with detailed information on the potentially significant environmental effects which a proposed project is likely to have and to list ways in which the significant environmental effects may be minimized and indicate alternatives to the project.

Project-related impacts to special status species covered under the CVMSHCP would be fully mitigated through payment of the requisite development fee and participation in the plan. Impacts to species not covered under the CVMSHCP must not exceed the significance thresholds as defined by the CEQA. Project design can incorporate avoidance, minimization and/or mitigation measures can be developed and implemented to reduce significant impacts to levels less than significant (where applicable).

3.2.2 Section 2081 of the State Fish and Game Code

Under Section 2081 of the California Fish and Game Code (FGC), the California Department of Fish and Wildlife (CDFW) authorizes individuals or public agencies to import, export, take, or possess state endangered, threatened, or candidate species in California through permits or memoranda of understanding. These acts, which are otherwise prohibited, may be authorized through permits or "memoranda of understanding" if (1) the take is incidental to otherwise lawful activities, (2) impacts of the take are minimized and fully mitigated, (3) the permit is consistent with regulations adopted in accordance with any recovery plan for the species in question, and (4) the applicant ensures suitable funding to implement the measures required by the CDFW. The CDFW shall make this determination based on the best scientific information reasonably available and shall include consideration of the species' capability to survive and reproduce.

3.2.3 Sections 3503, 3505.5, & 3513 of the State Fish and Game Code

Section 3503 of the FGC makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird. Section 3505.5 makes it unlawful to take, possess, or destroy any birds in the order Falconiformes or Strigiformes (birds-of-prey, i.e.: owls, hawks, eagles, etc.) or to take, possess, or destroy the nest or eggs of any bird-of-prey. Section 3513 makes it unlawful to take or possess any migratory nongame bird as designated in the MBTA.

4.0 METHODS

4.1 Literature Review

In preparation for the field surveys, a literature search was conducted to identify special status biological resources known from the vicinity of the project site. In the context of this report, and for the purpose of this assessment, vicinity is defined as areas within a 5-mile radius of the project site.

The literature search included a review of the following documents:

- California Natural Diversity Data Base (CNDDB) RareFind 5 (CDFW 2024a)
- Special Animals List (CDFW 2024b)

- California Native Plant Society's (CNPS) Inventory of Rare, Threatened, and Endangered Plants of California (CNPS 2024)
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. (NRCS 2024) Web Soil Survey.
- USGS 7.5' *San Bernardino North*, *San Bernardino South*, and *Harrison Mtn.* quadrangles (USGS 2021)
- City of San Bernardino General Plan (City of San Bernardino 2021)

Scientific nomenclature for this document follows standard reference sources: For plant communities, Manual of California Vegetation (CNPS 2024) and the National Vegetation Classification Standard (NVCS 2009); for flora, Jepson eFlora (2024) and the USDA NRCS PLANTS Database (2024); for amphibians, reptiles, and mammals, CDFW (2016); and for birds, California Bird Records Committee (2024).

4.2 Field Assessment

The field assessment was conducted between the hours of 0800 and 1000 on 30 July 2024 by WSP biologist Melanie Bukovac and field assistant Melissa Bukovac. On-site suitable habitat was assessed based on the presence of constituent habitat elements (e.g., soils, vegetation, and topography) characteristic of the potentially occurring special status biological resources determined by the literature review. The entire site and adjacent properties (where accessible) were assessed on foot to record pertinent field data and current site conditions. Adjacent undeveloped areas within an approximate 150-meter (~500-foot) buffer zone were also assessed visually, from the project site, for burrowing owl (*Athene cunicularia*). All on-site flora and fauna observed or otherwise detected (e.g., vocalizations, presence of scat, tracks, and/or bones) during the assessment were recorded in field notes and are included in Appendices B and C. General weather and site conditions were also recorded at the beginning and end of the survey. Temperatures and wind speeds were recorded with a handheld Kestrel 3000 anemometer. Percent cloud cover was visually estimated.

5.0 RESULTS

The fenced project site currently consists of an existing grass playfield on the southern portion of the elementary school property. A mix of public, and both single and multi-family residential developed space occurs on adjacent properties to the north, south, east, and west. No drainages or other evidence of water flow or pooling was detected on-site. No remnant dunes or sand fields were detected. The larger surrounding area is densely developed with residential spaces consisting of single and multi-family homes to the north, south, east, and west, with a small number of public spaces and undeveloped lots located intermittently. The project site is in an area that is designated as "public facilities" under the County's General Plan and Development Code,

providing existing land use designations (San Bernardino County 2024). Representative site photos are included in Appendix D. No sensitive biological resources were observed on the site. No native plant communities were present on the project site.

5.1 Weather Conditions

Weather conditions during the assessment included clear skies with 0% cover at the start and end of the survey. Temperatures ranged from 72 to 81 degrees Fahrenheit. Winds were low with intermittent wind speeds measured between 0-2 miles per hour (mph).

5.2 Topography, Soils and Waters

The project site is relatively flat and grassy. One type of soil is mapped on the project site, classified as Hanford coarse sandy loam, 2-9% slopes (NRCS 2024a). Hanford soils are very deep, well-drained soils that formed in moderately coarse textured alluvium, dominantly from granite. Hanford soils are formed on stream bottoms, floodplains, and alluvial fans. Slopes range from 0 to 15 percent.

The field surveys confirmed that on-site soils and substrates are typical of this area and consistent with the soil mapping (Appendix C). No sand drifts, hummocks, rock outcrops, significant rocky areas, clay lenses, springs, seeps or bodies of water were detected. Additionally, no creeks, rivers, dry washes, blueline streams, lakes, ponds or vernal pools are mapped or were observed on the project site. The Waterman Percolation Basins are located approximately 0.8 miles to the northeast of the project site and East Twin Creek is located approximately 1 mile to the east.

5.3 Vegetation

The on-site vegetation community is classified as non-native grassland (Holland 1986). This community could also be described as "*Cynodon dactylon* herbaceous alliance" (NVCS 2009) (Figure 5). The dominant perennial plant species observed was Bermuda grass (*Cynodon dactylon*). Other representative, but less abundant, plant species observed included dallis grass (*Paspalum dilatatum*), nutgrass (*Cyperus rotunus*), puncture vine (*Tribulus terrestris*), common purslane (*Portulaca oleracea*), prostrate knotweed (*Polygonum aviculare*), Carolina bristle mallow (*Modiola caroliniana*), cheeseweed (*Malva parviflora*), red-stemmed filaree (*Erodium cicutarium*), white clover (*Trifolium repens*), California burclover (*Medicago polymorpha*), spotted spurge (*Euphorbia maculata*), pepperweed sp. (*Lepidium sp.*), red-seeded dandelion (*Taraxacum officinale*), sow thistle (*Sonchus oleraceus*), hairy-leaved sunflower (*Helianthus annuus*), marsh parsley (*Cyclospermum leptophyllum*), ponysfoot sp. (*Dichondra sp.*), common mulberry (*Morus alba*), plane tree sp. (*Platanus sp.*), Chinese pistachio (*Pistacia chinensis*), camphor tree (*Cinnamomum camphora*), and ash tree sp. (*Fraxinus sp.*). This type of non-native grassland vegetation community commonly occurs among landscaped urban developments, especially in residential spaces. No wetland, riparian or otherwise special status vegetation communities were observed on the project

site. No native plant communities were observed on or adjacent to the project site. A list of the plant species observed during the assessment, including common and scientific names, is appended to this report (Appendix B).

5.4 Wildlife

Vertebrate wildlife directly observed and/or detected otherwise (e.g., scat, bones, tracks, feathers, burrows, etc.) during the assessment was not especially diverse or abundant, limited to only seven species, all of which are common to the region. This included four birds, two invertebrates, and one mammal (Appendix C).

The four bird species detected on site included the common raven (*Corvus corax*), house finch (*Haemorhous mexicanus*), black phoebe (*Sayornis nigricans*), and acorn woodpecker (*Melanerpes formicivorus*).

The three invertebrates observed on-site included a red rock skimmer (*Paltothemis lineatipes*), a western honeybee (*Apis mellifera*) and a paper wasp (*Polistes exclamans*). All three are common in the San Bernardino area. Other common invertebrates expected to occur onsite include, but are not limited to, figeater beetle (*Cotinis mutabilis*), Mantis sp. (*Stagmomantis sp.*) and ten-lined June beetle (*Polyphylla decemlineata*), with potential for the sensitive monarch butterfly (*Danaus plexippus*) to also move through the site (although no larval host plant [milkweed] was present).

The one mammal detected onsite included the fox squirrel (*Sciurus niger*). Other small mammals, particularly rodents, may occur on the site as many small mammal burrows were observed along the outer fence line. The specific species that are present cannot be conclusively determined without an intensive trapping effort. Larger carnivores such as the coyote (*Canis latrans*), and/or bobcat (*Lynx rufus*) were not detected, however, there is potential for these species to forage on or move through the site area.

No reptiles were observed on site during the site survey. However, common reptiles expected to occur onsite include, but are not limited to, the western fence lizard (*Sceloporus occidentalis*), western side-blotched lizard (*Uta stansburiana*), southern alligator lizard (*Elgaria multicarinata*), gopher snake (*Pituophis catenifer*), and coachwhip (*Masticophis flagellum*). The site supports no suitable habitat for amphibians of any kind.

It should be noted that relatively short-term biological studies of this nature are often limited by the seasonality of annual plants, the migratory habits of many birds, the fossorial and nocturnal habits of many mammals and reptiles, and the timing of field surveys. A complete inventory of the wildlife on the site would require extensive year-round surveys for birds, amphibians, and reptiles, and additional surveys, such as placement of scent stations or tracking stations, for the detection of nocturnal mammals. Knowledge of habitat associations, natural history, seasonality, and distribution is essential in the assessment of the potential for occurrence of the various special

status plants and animals known to occur throughout the various areas of San Bernardino County. For these reasons, other common and special status species that were not observed on-site may also have the potential to occur based on their geographic distribution, habitat preferences, and the regional location of the site. Tables 1-7 below summarize information on special status species known to occur in the vicinity of the project site, including the potential for occurrence of each species on the project site based on the best available information and the collective expertise of WSP biologists.

5.5 Special Status Species

Plant or animal taxa may be considered "sensitive" or as having “special status” due to declining populations, vulnerability to habitat change, or because they have restricted ranges. Some are listed as threatened or endangered by the USFWS or by the CDFW and are protected by the federal and state Endangered Species acts and the California Native Plant Protection Act. Others have been identified as sensitive or as special status species by the USFWS, the BLM, the CDFW, or by private conservation organizations, including the CNPS. Unlisted sensitive species do not have formal state or federal status but may nevertheless be considered significant under CEQA.

The review of the CNDDB, CNPS Online Inventory of Rare Plants, other biological reports from the vicinity, and consultation with other experienced biologists/naturalists resulted in the identification of ninety-six (96) special status biological resources known to occur in the vicinity (within an approximate 5-mile radius) of the project site. These included thirty-nine (39) plants, five (5) vegetation communities, nine (9) invertebrates, twelve (12) reptiles, four (4) amphibians, fourteen (14) birds, and thirteen (13) mammals. Tables 1 through 7 provide a complete list of the special status biological resources, their associated legal status, and their respective onsite occurrence potentials.

The County of San Bernardino and the Town of Apple Valley are developing a Multi-Species Habitat Conservation Plan/ Natural Community Conservation Plan (MSHCP/NCCP) in coordination with the Bureau of Land Management (BLM), USFWS, and CDFW. The goal of this Conservation Plan is to achieve coordinated, consistent, and complimentary conservation planning goals between the MSHCP/NCCP, and state and federal land use plans to achieve conservation benefits at a landscape level. This project site does not fall within the plan area for the Apple Valley MSHCP/NCCP and, therefore, is not subject to its requirements.

No special status flora or fauna was detected on-site during the field assessment. The project site also does not appear to fall within designated critical habitat for any special status species (USFWS 2022).

No special status wildlife species were detected or observed onsite during the assessment. Very little to no potentially suitable habitat is present for special status wildlife species known from the vicinity.

Tables 1 through 7 summarize information on all special status species that have been reported within the vicinity (5-mile radius) or are considered to have some potential to occur onsite based on known geographic distribution and the presence of potentially suitable habitat. These tables provide the names, legal or conservation status, general habitat associations, and the probability of occurrence for each of these species.

Table 1. Special Status Plants

Species	Status	Habitat	Probability
Allium howellii var. Clokeyi **Mt. Pinos onion**	F = None C = None, S2 CNPS: CRPR 1B.3	Great Basin scrub, Meadow & seep, Pinon & juniper woodlands; 1120-2120 meters (m) (3675-6955 feet (ft)); Blooms (B): Apr-Jun	**Absent** Suitable habitat lacking, site below known elevational range
Arenaria paludicola **marsh sandwort**	F = **END** C = **END**, S1 CNPS: CRPR 1B.1	Freshwater marsh, Marsh & swamp, Wetland; 3-170 m (10-560 ft); B: May-Aug	**Absent** Suitable habitat lacking, site above known elevational range
Astragalus hornii var. hornii **Horn's milk-vetch**	F = None C = None, S1 CNPS: CRPR 1B.1	Alkali playa, Meadow & seep, Wetland; 60-300 m (196-984 ft); B: May-Oct	**Absent** Suitable habitat lacking, site above known elevational range
Berberis nevinii **Nevin's barberry**	F = **END** C = **END**, S1 CNPS: CRPR 1B.1	Chaparral, Cismontane woodland, Coastal scrub, Riparian scrub; 240-820 m (800-2700 ft). B: Mar-Apr	**Absent** Suitable habitat lacking
Brodiaea filifolia **thread-leaved brodiaea**	F = **THR** C = **END**, S2 CNPS: CRPR 1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland, Vernal pool, Wetland; 10-410 m (32-1345 ft). B: May-Jun	**Absent** Suitable habitat lacking
Calochortus palmeri var. palmeri ***Palmer's mariposa-lily***	F = None C = None, S2 CNPS: CRPR 1B.2	Chaparral, Lower montane coniferous forest, wetland, Meadow & seep; 1200-2200 m (3937-7217 ft). B: May-Jul	**Absent** Suitable habitat lacking, site below known elevational range
Calochortus plummerae **Plummer's mariposa-lily**	F = None C = None, S4 CNPS: CRPR 4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley & foothill grassland; 100-1700 m (330-5580 ft). B: May-Jul	**Absent** Suitable habitat lacking

Table 1. Special Status Plants

Species	Status	Habitat	Probability
Carex comosa **bristly sedge**	F = None C = None, S2 CNPS: CRPR 2B.1	Coastal prairie, Freshwater marsh, Marsh & swamp, Valley & foothill grassland, Wetland; 290-620 m (950-2035 ft); B: May-Sept	**Absent** Suitable habitat lacking
Castilleja lasiorhyncha **San Bernardino Mountains owl's-clover**	F = None C = None, S2 CNPS: CRPR 1B.2	Chaparral, Meadow & seep, Pavement plain, Riparian woodland, Upper montane coniferous forest, Wetland; 1300-2390 m (4265-7840 ft); B: Jun-Jul	**Absent** Suitable habitat lacking; site below known elevational range
Centromadia pungens ssp. laevis **smooth tarplant**	F = None C = None, S2 CNPS: CRPR 1B.1	Alkali playa, Chenopod scrub, Meadow & seep, Riparian woodland, Valley & foothill grassland, Wetland; 0-640 m (0-2100 ft). B: Apr-Sep	**Absent** Suitable habitat lacking
Chloropyron maritimum ssp. maritimum **salt marsh bird's-beak**	F = **END** C = **END**, S1 CNPS: CRPR 1B.2	Coastal dunes, Marsh & swamp, Saltmarsh, Wetland; 0-30 m (0-100 ft); B: May-Oct (Nov)	**Absent** Suitable habitat lacking, site above known elevational range
Chorizanthe parryi var. parryi **Parry's spineflower**	F = None C = None, S2 CNPS: CRPR 1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland; 90-1300 m (295-4265 ft). B: May-Jun	**Absent** Suitable habitat lacking
Cuscuta obtusiflora var. glandulosa **Peruvian dodder**	F = None C = None, SH CNPS: CRPR 2B.2	Marsh & swamp, Wetland; 15-280 m (50-920 ft); B: Jul-Oct	**Absent** Suitable habitat lacking, site above known elevational range, records are historical – not extant
Dodecahema leptoceras **slender-horned spineflower**	F = **END** C = **END**, S1 CNPS: CRPR 1B.1	Chaparral, Cismontane woodland, Coastal scrub; 210-760 m (700-2500 ft). B: Apr-Jun	**Absent** Suitable habitat lacking
Eriastrum densifolium ssp. sanctorum **Santa Ana River woollystar**	F = **END** C = **END**, S1 CNPS: CRPR 1B.1	Chaparral, Coastal scrub; 150-600 m (500-2000 ft); B: Jun-Aug	**Absent** Suitable habitat lacking
Fimbristylis thermalis **hot springs fimbristylis**	F = None C = None, S1S2 CNPS: CRPR 2B.2	Meadow & seep, Wetland; 110-1340 m (360-4395 ft) B: Jul-Sep	**Absent** Suitable habitat lacking
Galium californicum ssp. primum **Alvin Meadow bedstraw**	F = None C = None, S2 CNPS: CRPR 1B.2	Chaparral, Lower montane coniferous forest; B: May-Jul	**Absent** Suitable habitat lacking

Table 1. Special Status Plants

Species	Status	Habitat	Probability
Helianthus nuttallii ssp. parishii **Los Angeles sunflower**	F = None C = None, SX CNPS: CRPR 1A	Freshwater marsh, Marsh & swamp, Saltmarsh, Wetland; 0-500 m (0-1640 ft); B: Aug-Oct	**Absent** Suitable habitat lacking, presumed extirpated (regionally extinct)
Heuchera parishii **Parish's alumroot**	F = None C = None, S3 CNPS: CRPR 1B.3	Alpine boulder & rock field, Limestone, Lower montane coniferous forest, Subalpine coniferous forest, Upper montane coniferous forest; 140-2590 m (460-8495 ft); B: Jun-Aug	**Absent** Suitable habitat lacking
Horkelia cuneata var. puberula **mesa horkelia**	F = None C = None, S1 CNPS: CRPR 1B.1	Chaparral, Cismontane woodland, Coastal scrub; 5-2280 m (15-7480 ft); B: Feb-Jul	**Absent** Suitable habitat lacking
Imperata brevifolia **California satintail**	F = None C = None, S3 CNPS: CRPR 2B.1	Chaparral, Coastal scrub, Meadow & seep, Mojavean desert scrub, Riparian scrub, Wetland; 110-2280 m (360-7480 ft). B: Sep-May	**Absent** Suitable habitat lacking
Ivesia argyrocoma var. argyrocoma **silver-haired ivesia**	F = None C = None, S2 CNPS: CRPR 1B.2	Meadow & seep, Pavement plain, Upper montane coniferous forest; 0-2340 m (0-7675 ft); B: Jun-Aug	**Absent** Suitable habitat lacking
Lepidium virginicum var. robinsonii **Robinson's peppergrass**	F = None C = None, S3 CNPS: CRPR 4.3	Chaparral, Coastal scrub; 85-1390 m (280-4560 ft); B: Jan-Jul	**Absent** Suitable habitat lacking
Lycium parishii **Parish's desert-thorn**	F = None C = None, S1 CNPS: CRPR 2B.3	Coastal scrub, Sonoran desert scrub; 260-1510 m (855-4955 ft) B: Mar–Apr.	**Absent** Suitable habitat lacking
Malacothamnus parishii **Parish's bushmallow**	F = None C = None, SX CNPS: CRPR 1A	Chaparral, Coastal scrub; B: Jun-Jul.	**Absent** Suitable habitat lacking, presumed extirpated (regionally extinct)
Monardella macrantha ssp. hallii **Hall's monardella**	F = None C = None, S3 CNPS: CRPR 1B.3	Broadleaved upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Valley & foothill grassland; 1340-2070 m (4395-6790 ft); B: Jun-Oct	**Absent** Suitable habitat lacking, site below known elevational range

Table 1. Special Status Plants

Species	Status	Habitat	Probability
Monardella pringlei **Pringle's monardella**	F = None C = None, SX CNPS: CRPR 1A	Coastal scrub; B: May-Jun	**Absent** Suitable habitat lacking, presumed extirpated (regionally extinct)
Nasturtium gambelii **Gambel's water cress**	F = **END** C = **THR**, S1 CNPS: CRPR 1B.1	Brackish marsh, Freshwater marsh, Marsh & swamp, Wetland; B: Apr-Oct	**Absent** Suitable habitat lacking
Pelazoneuron puberulum var. sonorense **Sonoran maiden fern**	F = None C = None, S2 CNPS: CRPR 2B.2	Meadow & seep, Wetland; 50-610 m (165-2000 ft)	**Absent** Suitable habitat lacking
Perideridia parishii ssp. parishii **Parish's yampah**	F = None C = None, S2 CNPS: CRPR 2B.2	Lower montane coniferous forest, Meadow & seep, Upper montane coniferous forest; 1353-3219 m (4439-10,562 ft); B: Jun-Aug	**Absent** Suitable habitat lacking, site below known elevational range
Ribes divaricatum var. parishii **Parish's gooseberry**	F = None C = None, SX CNPS: CRPR 1A	Riparian woodland; 65-300 m (215-985 ft); B: Feb-Apr	**Absent** Suitable habitat lacking, Presumed extirpated (regionally extinct)
Schoenus nigricans **black bog-rush**	F = None C = None, S2 CNPS: CRPR 2B.2	Marsh & swamp, Wetland; 700-2290 m (2295-7515 ft); B: Aug-Sep.	**Absent** Suitable habitat lacking, site below known elevational range
Senecio aphanactis **chaparral ragwort**	F = None C = None, S2 CNPS: CRPR 2B.2	Chaparral, Cismontane woodland, Coastal scrub; 110-660 m (360-2165 ft); B: Jan-Apr	**Absent** Suitable habitat lacking
Sidalcea malviflora ssp. dolosa **Bear Valley checkerbloom**	F = None C = None, S2 CNPS: CRPR 1B.2	Lower montane coniferous forest, Meadow & seep, Riparian woodland, Upper montane coniferous forest, Wetland; 0-2540 m (0-8335 ft); B: May-Aug	**Absent** Suitable habitat lacking
Sidalcea neomexicana **salt spring checkerbloom**	F = None C = None, S2 CNPS: CRPR 2B.2	Alkali playa, Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Wetland; 550-2620 m (1805-8595 ft); B: Mar-Jun	**Absent** Suitable habitat lacking, site below known elevational range
Sphenopholis obtusata **prairie wedge grass**	F = None C = None, S2 CNPS: CRPR 2B.2	Cismontane woodland, Meadow & seep, Wetland; 1280-2830 m (4200-9285 ft); B: Apr-Jul	**Absent** Suitable habitat lacking, site below known elevational range

Table 1. Special Status Plants

Species	Status	Habitat	Probability
treptanthus bernardinus **Laguna Mountains jewelflower**	F = None C = None, S3S4 CNPS: CRPR 4.3	Chaparral, Lower montane coniferous forest, Upper montane coniferous forest; 1410-2300 m (4625-7545 ft); B: May-Aug	**Absent** Suitable habitat lacking, site below known elevational range
Streptanthus campestris **southern jewelflower**	F = None C = None, S3 CNPS: CRPR 1B.3	Chaparral, Lower montane coniferous forest, Pinon & juniper woodlands; 1050-2170 m (3445-7120 ft); B: May-Jul	**Absent** Suitable habitat lacking, site below known elevational range
Symphyotrichum defoliatum **San Bernardino aster**	F = None C = None, S2 CNPS: CRPR 1B.2	Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Valley & foothill grassland; 0-2280 m (0-7480 ft); B: Jul-Nov	**Absent** Suitable habitat lacking

Table 2. Special Status Vegetation Communities

Community	Status	Habitat	Probability
Riversidian Alluvial Fan Sage Scrub	F=None C= None, S1.1	Coastal scrub	**Absent** No scrubs present on site
Southern Cottonwood Willow Riparian Forest	F=None C= None, S3.2	Riparian forest	**Absent** No forests present on site
Southern Mixed Riparian Forest	F=None C= None, S2.1	Riparian forest	**Absent** No forests present on site
Southern Riparian Scrub	F=None C= None, S3.2	Riparian scrub	**Absent** No scrubs present on site
Southern Sycamore Alder Riparian Woodland	F=None C= None, S4	Riparian woodland	**Absent** No woodlands present on site

Table 3. Special Status Invertebrates

Community	Status	Habitat	Probability

Table 3. Special Status Invertebrates

Bombus crotchii **Crotch's bumble bee**	F = None C = **CAN END**, S2	Grasslands and shrublands; host plants: milkweeds, dusty maidens, lupines, medics, phacelias, sages, clarkias, poppies, and wild buckwheats; nests often located underground in abandoned rodent nests, or above ground in tufts of grass, old bird nests, rock piles, or cavities in dead trees.	**Absent** Suitable habitat lacking
Bombus morrisoni **Morrison bumble bee**	F = None C = None, S1S2	Range largely occurs within the Intermountain West; high plains shrublands, riparian areas, agricultural land, meadow/grasslands; common host plants: sunflowers, thistles, lupines	**Absent** Suitable habitat lacking
Bombus pensylvanicus **American bumble bee**	F = None C = None, S2	Coastal prairie, Great Basin grassland, Valley & foothill grassland	**Absent** Suitable habitat lacking
Danaus plexippus **monarch butterfly**	F = **CAN** C = None, S2	Highly migratory species, overwinters in California; primarily roosts in eucalyptus, Monterey pines, and Monterey cypress trees along the Pacific coast; also roost in grasses and forbs; flowering plants are needed for breeding and migration, with milkweed being especially important for laying eggs.	**Very Low-Absent** Suitable habitat lacking; considered as fly over potential only; nearest iNaturalist record ~0.9 mile west. No milkweed present on site.
Euchloe hyantis andrewsi **Andrew's marble butterfly**	F = None C = None, S2	Lower montane coniferous forest, rocky canyons, cliffs, moraines, and gravelly flats; found from Southern Oregon to southern California, west of Sierra Nevada crest, to northern Baja California; the San Bernardino Mountains are home to the subspecies andrewsi.	**Absent** Suitable habitat lacking, site is below the elevation where this subspecies occurs.
Eugnosta busckana **Busck's gallmoth**	F = None C = None, S2S3	Coastal dunes, Coastal scrub	**Absent** Suitable habitat lacking

Table 3. Special Status Invertebrates

Euphydryas editha quino **quino checkerspot butterfly**	F = **END** C = None, S1S2	Chaparral, Coastal scrub, patchy shrub or small tree landscapes with open swales alternating with dense patches of shrubs; currently known to occur in western Riverside and San Diego counties in California and northern Baja California, Mexico.	**Absent** Suitable habitat lacking; site may be outside of current known distribution areas
Neolarra alba **white cuckoo bee**	F = None C = None, SH	Arid, sandy regions	**Absent** Suitable habitat lacking
Rhaphiomidas terminates abdominalis **Delhi Sands flower-loving fly**	F = **END** C = None, S1	Restricted to what is left of the Delhi sand dune formation within an 8-mile radius that straddles Interstate 10 in the vicinity of Colton and Rialto, Riverside and San Bernardino Counties, California.	**Absent** Suitable habitat lacking, site is outside the known range of the species.

Table 4. Special Status Reptiles

Species	Status	Habitat	Probability
Actinemys marmorata ssp. pallida **southwestern pond turtle**	F = **Proposed THR** C = SSC, SNR	Freshwater habitats: ponds, lakes, marshes, and slow-moving rivers with abundant aquatic vegetation; riparian thickets of willows and shrubs, coast live oak and Monterey pine woodlands	**Absent** Suitable habitat lacking
Anniella stebbinsi **San Diegan (Southern California) legless lizard**	F = None C = SSC, S3	Broadleaved upland forest, Chaparral, Coastal dunes, Coastal scrub, sandy washes and alluvial fans; live mostly underground in loose, sandy substrate.	**Absent** Suitable habitat lacking
Arizona elegans occidentalis **California glossy snake**	F: None C: SSC, S2	Barren desert, creosote flats, sage brush flats, coastal sage, chaparral, grasslands, and pinion-juniper, oak, or pine woodlands	**Absent** Suitable habitat lacking

Table 4. Special Status Reptiles

Species	Status	Habitat	Probability
Aspidoscelis hyperythra **orange-throated whiptail**	F: None C: WL, S2S3	Chaparral, Cismontane woodland, Coastal scrub; semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral.	**Absent** Suitable habitat lacking
Aspidoscelis tigris stejnegeri **coastal whiptail**	F = None C = SSC, S3	Hot and dry open areas with sparse foliage; typically found in coastal southern California, primarily west of Peninsular Ranges, south of the Transverse Ranges, north into Ventura County, and south into Baja California	**Absent** Suitable habitat lacking
Charina umbratica **southern rubber boa**	F = None C = **THR**, S2	Meadow & seep, Riparian forest, Riparian woodland, Upper montane coniferous forest, Wetland	**Absent** Suitable habitat lacking, site is below the elevation where this species occurs.
Coleonyx variegatus abbotti **San Diego banded gecko**	F = None C = SSC, S1S2	Chaparral, coastal scrub	**Absent** Suitable habitat lacking
Crotalus ruber **red-diamond rattlesnake**	F = None C = SSC, S3	Chaparral, Mojavean desert scrub, Sonoran desert scrub	**Absent** Suitable habitat lacking
Diadophis punctatus modestus **San Bernardino ringneck snake**	F = None C = None, S2	Moist habitats, including wet meadows, rocky hillsides, gardens, farmland, grassland, chaparral, mixed coniferous forests, woodlands	**Absent** Suitable habitat lacking
Phrynosoma blainvillii **coast horned lizard**	F = None C = SSC, S4	Chaparral, Cismontane woodland, Coastal bluff scrub, Coastal scrub, Desert wash, Pinon & juniper woodlands, Riparian scrub, Riparian woodland, Valley & foothill grassland; often found near ant hills, feeding on ants	**Very Low-Absent** Suitable habitat lacking; may move through and/or forage onsite, however; nearest CNNDB records ~0.7 miles west

Table 4. Special Status Reptiles

Species	Status	Habitat	Probability
Thamnophis hammondii **two-striped gartersnake**	F = None C = SSC, S3S4	Generally found near water sources – pools, creeks, cattle tanks, etc., often in rocky areas; oak woodland, willow, coastal sage scrub, scrub oak, sparse pine, chaparral, and brushland	**Absent** Suitable habitat lacking
Thamnophis sirtalis **south coast gartersnake**	F = None C = SSC, S1S2	Artificial standing waters, Marsh & swamp, Riparian scrub, Riparian woodland, Southcoast flowing waters, Southcoast standing waters, Wetland	**Absent** Suitable habitat lacking

Table 5. Special Status Amphibians

Species	Status	Habitat	Probability
Batrachoseps gabrieli **San Gabriel slender salamander**	F = None C = None, S2S3	Talus slopes surrounded by conifer and montane woodland, closely associated with rock talus on forested slopes, often near a stream.	**Absent** Suitable habitat lacking
Rana draytonii **California red-legged frog**	F = **THR** C = SSC, S2S3	Aquatic, Artificial flowing waters, Artificial standing waters, Freshwater marsh, Marsh & swamp, Riparian forest, Riparian scrub, Riparian woodland, Sacramento/San Joaquin flowing waters, Sacramento/San Joaquin standing waters, South coast flowing waters, South coast standing waters, Wetland	**Absent** Suitable habitat lacking
Rana muscosa **southern mountain yellow-legged frog**	F = **END** C = **END**, S2	Aquatic; inhabits sunny streambanks, meadow streams, isolated pools, and rocky streams in the mountains of southern California from 850-7500 ft.	**Absent** Suitable habitat lacking

Species	Status	Habitat	Probability
Spea hammondii **western spadefoot**	F = **Proposed THR** C = **END**, S3S4	Cismontane woodland, Coastal scrub, Valley & foothill grassland, open chaparral, pin-oak woodlands, Vernal pool, Wetland, slow-moving streams.	**Absent** Suitable habitat lacking

Table 6. Special Status Birds

Species	Status	Habitat	Probability
Agelaius tricolor **tricolored blackbird**	F = **MBTA,** BBC C = SSC (nesting), S2, FGC	Freshwater marsh, Marsh & swamp, Swamp, Wetland	**Breeding: Absent** Suitable habitat lacking. **Foraging: Absent** Nearest CNDDB records ~6.7 miles south.
Aimophila ruficeps canescens **southern California rufous-crowned sparrow**	F = **MBTA** C = WL (nesting), S4, FGC	Chaparral, Coastal scrub; found in brushy areas, rocky outcrops, and open pine and oak forests in the Southwestern US and much of the interior of Mexico. Nesting: on ground or in low shrubs, usually at the base of a bush or grass clump	**Breeding: Absent** Suitable habitat lacking. **Foraging: Absent** May nest or winter nearby Nearest CNDDB records ~2.2 miles northeast.
Artemisiospiza belli belli **coastal Bell's sparrow**	F = **MBTA** C = WL (nesting), S3, FGC	Chaparral, Coastal scrub	**Breeding: Absent** Suitable habitat lacking. **Foraging: Absent** May nest or winter nearby Nearest iNaturalist records ~2.7 miles northwest.
Athene cunicularia **burrowing owl**	F = **MBTA,** BCC C = SSC (nesting), S3, FGC	Coastal prairie, Coastal scrub, Great Basin grassland, Great Basin scrub, Mojavean desert scrub, Sonoran desert scrub, Valley & foothill grassland; requires suitable burrows	**Breeding: Absent** Suitable habitat lacking. **Foraging: Absent** Nearest iNaturalist records ~4.4 miles southeast

Table 6. Special Status Birds

Species	Status	Habitat	Probability
Buteo swainsoni **Swainson's hawk**	F = **MBTA,** BCC C = **THR** (nesting), S4, FGC	Great Basin grassland, Riparian forest, Riparian woodland, Valley & foothill grassland	**Breeding: Absent** Suitable habitat lacking. **Foraging: Low** Nearest CNDDB records ~2.5 miles south, only expected as a passage migrant.
Coccyzus americanus occidentalis **western yellow-billed cuckoo**	F = **THR**, **MBTA** C = **END** (nesting), S1, FGC	Riparian forest	**Breeding: Absent** Suitable habitat lacking. **Foraging: Absent** considered to be largely absent in southern California
Empidonax traillii extimus **southwestern willow flycatcher**	F = **END**, **MBTA** C = **END** (nesting), S3, FGC	Riparian woodland	**Breeding: Absent** Suitable habitat lacking. **Foraging: Absent** Nearest CNDDB records ~2.9 miles east
Eremophila alpestris actia **California horned lark**	F = **MBTA** C = WL (nesting), S4, FGC	Barren ground with short grass or scattered bushes, often uses fallow agricultural fields, grassland, tundra, sandy regions, areas with scattered low shrubs, desert playas, grazed pastures, stubble fields, open cultivated areas, and rarely open areas in forest. Nesting: hollow on ground, often next to grass tuft or clod of earth or manure.	**Breeding: Absent** Suitable habitat lacking, site is too disturbed. **Foraging: Low** Possible as a passage migrant, but not expected to inhabit site. Nearest CNDDB records ~2.8 miles northwest.

Table 6. Special Status Birds

Species	Status	Habitat	Probability
Falco columbarius **merlin**	F = **MBTA** C = WL (nesting), S3S4, FGC	Estuary, Great Basin grassland, Valley & foothill grassland Nesting: open forest and woodland in northern/ colder parts of Northern Hemisphere, open areas with scattered trees (such as grasslands, moorlands, or tundra), forest edges and clearings, dense vegetation in open country and grassland, sand dunes and dune grasses for nesting.	**Breeding: Absent** Suitable habitat lacking, does not breed in our area. **Foraging: Low** May winter nearby & forage over site; Nearest CNDDB records ~3.2 miles northwest.
Haliaeetus leucocephalus **bald eagle**	F = **MBTA, Eagle Act** C = **END** (nesting), S3, FGC	Lower montane coniferous forest, Old growth	**Breeding: Absent** Suitable habitat lacking. **Foraging: Absent** Nearest CNDDB records ~6.6 miles northeast, at higher elevations with access to water (fish).
Laterallus jamaicensis coturniculus **California black rail**	F = **MBTA** C = **THR** (nesting), S2, FGC	Brackish marsh, Freshwater marsh, Marsh & swamp, Saltmarsh, Wetland	**Breeding: Absent** Suitable habitat lacking. **Foraging: Absent** Nearest CNDDB records ~2.6 miles southwest. Specialized freshwater marsh habitat not present.
Polioptila californica californica **coastal California gnatcatcher**	F = **THR**, **MBTA** C = SSC (nesting), S2, FGC	Coastal bluff scrub, Coastal scrub, sage scrub, arid land with spare vegetation in desert habitat Nesting: typically nests in coastal sage scrub	**Breeding: Absent** Suitable habitat lacking. **Foraging: Absent** Nearest CNDDB records ~3 miles northwest. Resident in Coastal Sage Scrub community, does not forage in developed areas.

Table 6. Special Status Birds

Species	Status	Habitat	Probability
Setophaga petechia **yellow warbler**	F = **MBTA** C = SSC (nesting), S3, FGC	Riparian forest, Riparian scrub, Riparian woodland Nesting: upright forks of branches in shrubs, small trees, and briars	**Breeding: Absent** Suitable habitat lacking. **Foraging: Low** Only expected as a possible passage migrant. Nearest CNDDB records ~2.2 miles northeast.
Vireo bellii pusillus **least Bell's vireo**	F = **END**, **MBTA**, BCC C = **END**, SSC (nesting), S3, FGC	Riparian forest, Riparian scrub, Riparian woodland; dense, shrubby vegetation – willows, mule fat, and cottonwoods create ideal cover and food sources Nesting: coastal southern California and northern Baja California, Mexico; strong preference for dense riparian habitats	**Breeding: Absent** Suitable habitat lacking. **Foraging: Absent** Nearest CNDDB records ~2.5 miles northwest. Usually requires riparian habitat for breeding and foraging.

Table 7. Special Status Mammals

Species	Status	Habitat	Probability
Chaetodipus fallax fallax **northwestern San Diego pocket mouse**	F = None C = None, S3S4	Mixed chaparral, Coastal sage scrub, sagebrush, desert wash, desert scrub, pinyon-juniper, and annual grassland; sandy herbaceous areas, usually in association with rocks or coarse gravel, stony soils above sandy desert fans, rocky areas within shrub communities; southwestern California surrounding San Diego and extending into northwestern Baja California, Mexico.	**Absent** Suitable habitat lacking

Table 7. Special Status Mammals

Species	Status	Habitat	Probability
Dipodomys merriami parvus **San Bernardino kangaroo rat**	F = **END** C = **END**, SSC, S1	Scattered, isolated patches of alluvial sage scrub; limited to three disjunct areas in San Bernardino and Riverside counties	**Absent** Suitable habitat lacking
Dipodomys stephensi **Stephens' kangaroo rat**	F = **THR** C =**THR**, S3	Coastal scrub, Valley & foothill grassland	**Absent** Suitable habitat lacking
Eumops perotis californicus **western mastiff bat**	F = None C =SSC, S3S4	Chaparral, Cismontane woodland, Coastal scrub, Valley & foothill grassland	**Absent** Suitable habitat lacking
Glaucomys oregonensis californicus **San Bernardino flying squirrel**	F = None C = SSC, S1S2	Broadleaved upland forest, Lower montane coniferous forest; 1371-3352 m (4500-11000 ft)	**Absent** Suitable habitat lacking; site below known elevational range
Lasiurus xanthinus **western yellow bat**	F = None C = SSC, S3	Desert wash, particular association with palms	**Absent** Suitable habitat lacking
Lepus californicus bennettii **San Diego black-tailed jackrabbit**	F = None C = None, S3S4	Coastal scrub	**Absent** Suitable habitat lacking
Neotoma lepida intermedia **San Diego desert woodrat**	F = None C = SSC, S3S4	Coastal scrub of southern California. Moderate to dense canopies preferred. Particularly abundant in rock outcrops & rocky cliffs & slopes.	**Absent** Suitable habitat lacking
Nyctinomops femorosaccus **pocketed free-tailed bat**	F = None C = SSC, S3	Joshua tree woodland, Pinyon-juniper woodlands, Riparian scrub, Sonoran desert scrub	**Absent** Suitable habitat lacking
Onychomys torridus ramona **southern grasshopper mouse**	F = None C = SSC, S3	Chenopod scrub	**Absent** Suitable habitat lacking
Perognathus alticola alticola **white-eared pocket mouse**	F = None C = SSC, SH	Lower montane coniferous forest, Mojavean desert scrub, Pinon & juniper woodlands	**Absent** Suitable habitat lacking
Perognathus longimembris brevinasus **Los Angeles pocket mouse**	F = None C = SSC, S1S2	Coastal scrub	**Absent** Suitable habitat lacking

Table 7. Special Status Mammals

Species	Status	Habitat	Probability
axidea taxus **American badger**	F = None C = SSC, S3	Alkali marsh, Alkali playa, Alpine, Alpine dwarf scrub, Bog & fen, Brackish marsh, Broadleaved upland forest, Chaparral, Chenopod scrub, Cismontane woodland, Closed-cone coniferous forest, Coastal bluff scrub, Coastal dunes, Coastal prairie, Coastal scrub, Desert dunes, Desert wash, Freshwater marsh, Great Basin grassland, Great Basin scrub, Interior dunes, Ione formation, Joshua tree woodland, Limestone, Lower montane coniferous forest, Marsh & swamp, Meadow & seep, Mojavean desert scrub, Montane dwarf scrub, North coast coniferous forest, Old growth, Pavement plain, Redwood, Riparian forest, Riparian scrub, Riparian woodland, Saltmarsh, Sonoran desert scrub, Sonoran thorn woodland, Ultramafic, Upper montane coniferous forest, Upper Sonoran scrub, Valley & foothill grassland	**Absent** Suitable habitat lacking, site is too developed and disturbed.

Definitions of status designations and occurrence probabilities for Tables 1-6

Definitions for Species

Italics – Scientific name (*i.e., Genus species subspecies*)
Bold – Standard common name (if any)
[*Genus*] – Previous genus, relatively recent taxonomic revision
var. – variety (plants only)
DPS – Distinct Population Segment (i.e., Peninsular bighorn sheep)

Definitions of occurrence probability:

Occurs*:* Observed or detected on-site by Wood or recently reported by another reliable source.
High*:* Observed in similar habitat in region by qualified biologists, or habitat on-site is a type often utilized by the species and the site is within the known range of the species.

Moderate: Reported sightings in surrounding region, or site is within the known range of the species and habitat on-site is a type occasionally used by the species.

Low: Site is within the known range of the species, but habitat on-site is rarely used by the species

Very Low: Habitat is of marginal suitability and/or site is at the edge of species known range or distribution.

Absent:A focused study failed to detect the species, suitable habitat not present, or site is outside the geographic distribution of the species.

Unknown: No focused surveys have been performed in the region, & the species' distribution & habitat are poorly known.

Federal designations: (F = federal Endangered Species Act or USFWS designations)

END: Federally listed, Endangered
THR: Federally listed, Threatened
CAN: Candidate for Federal listing
MBTA: Migratory Bird Treaty Act
BEPA: Bald Eagle Protection Act (also protects Golden Eagles)
BCC: Birds of Conservation Concern
None: No designation

***State designations*:** (C = California Endangered Species Act or CDFW designations)

END: State listed, Endangered
THR: State listed, Threatened
CAN: Candidate for State listing
RARE: State listed, Rare
FP: Fully Protected Species
SSC: Species of Special Concern
FGC: Fish and Game Code
WL: Watch List Species

CDFW state rankings are a reflection of the overall condition of an element throughout its California range. The number after the decimal point represents a threat designation attached to the rank:

S1 = Critically Imperiled. Less than (<) 6 Element Occurrences (EOs) OR < 1,000 individuals OR < 2,000 acres
- **S1.1** = very threatened
- **S1.2** = threatened
- **S1.3** = no current threats known

S2 = Imperiled. 6-20 EOs OR 1,000-3,000 individuals OR 2,000-10,000 acres
- **S2.1** = very threatened
- **S2.2** = threatened
- **S2.3** = no current threats known

S3 = Vulnerable. 21-80 EOs OR 3,000-10,000 individuals OR 10,000-50,000 acres
- **S3.1** = very threatened
- **S3.2** = threatened
- **S3.3** = no current threats known

S4 = Apparently Secure. Uncommon but not rare in the state; some cause for long-term concern.
S5 = Secure. Common, widespread, and abundant in the state.
SH = All known California sites are historical, not extant

California Native Plant Society (CNPS) California Rare Plant Ranks (CRPR) designations:

Primary Categories
LIST 1A: Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere
LIST 1B: Plants Rare, Threatened, or Endangered in California and Elsewhere
LIST 2A: Plants Presumed Extirpated in California, But Common Elsewhere
LIST 2B: Plants Rare, Threatened, or Endangered in California, But More Common Elsewhere
LIST 3: Plants About Which More Information is Needed - A Review List
LIST 4: Plants of Limited Distribution - A Watch List

Subdivisions within Categories
0.1: Seriously threatened in California
0.2: Moderately threatened in California
0.3: Not very threatened in California

Western Bat Working Group (WBWG) designations:

The Western Bat Working Group is comprised of agencies, organizations and individuals interested in bat research, management and conservation from the 13 western states and provinces. Its goals are (1) to facilitate communication among interested parties and reduce risks of species decline or extinction; (2) to provide a mechanism by which current information on bat ecology, distribution and research techniques can be readily accessed; and (3) to develop a forum to discuss conservation strategies, provide technical assistance and encourage education programs.

H: High: Species which are imperiled or are at high risk of imperilment based on available information on distribution, status, ecology and known threats.

M: Medium: Species which warrant a medium level of concern and need closer evaluation, more research, and conservation actions of both the species and possible threats. A lack of meaningful information is a major obstacle in adequately assessing these species' status and should be considered a threat.

L: Low: Species for which most of the existing data support stable populations, and for which the potential for major changes in status in the near future is considered unlikely. There may be localized concerns, but the overall status of the species is believed to be secure. Conservation actions would still apply for these bats, but limited resources are best used on High and Medium status species.

P: Periphery: This designation indicates a species on the edge of its range, for which no other designation has been determined.

6.0 DISCUSSION

Implementation of the proposed project at APN 015-428-101 would result in the loss of approximately 1.2 acres of already developed and landscaped non-native grassland. This includes building a new fire station to replace the existing Fire Station #227 on a portion of the existing Arrowhead Elementary School grass playfield. The site will be paved with concrete and include a 10,764 sq ft building, built in accordance with county fire requirements. It will also include an additional storage building (400 sq ft), one steel roofed parking lot canopy (1,400 sq ft), a 1,000-gallon fuel tank, and a back-up generator.

No drainages or areas that would be considered jurisdictional under CDFW or USACE are present on-site or within the action area.

No special status plant or wildlife species were detected on-site or within the action area and/or adjacent areas during the site assessment in July, therefore, impacts to state-listed, federal-listed and/or any other special status species are not expected.

6.1 Discussion of the Special-status Species Tables

Of the 96 special status biological resources identified by the literature review to occur in the vicinity (within an 8 kilometer [km] [5-mile] radius), 94 were considered to be absent from the site due to a lack of requisite suitable habitat and/or the location of the site outside of the known geographic distribution and/or elevational range of the respective species (Tables 1-7). This includes, but is not limited to, the state and/or federally listed Crotch's bumblebee (*Bombus crotchii*), quino checkerspot butterfly (*Euphydryas editha quino*), Delhi sands flower-loving fly (*Rhaphiomidas terminates abdominalis*), southwestern pond turtle (*Actinemys marmorata ssp. pallida*), southern rubber boa (*Charina umbratical*), California red-legged frog (*Rana draytonii*), southern mountain yellow-legged frog (*Rana muscosa*), western spadefoot (*Spea hammondii*), Swainson's hawk (*Buteo swainsoni*), western yellow-billed cuckoo (*Coccyzus americanus occidentalis*), southwestern willow flycatcher (*Empidonax traillii extimus*), bald eagle (*Haliaeetus leucocephalus*), California black rail (*Laterallus jamaicensis coturniculus*), coastal California gnatcatcher (*Polioptila californica californica*), least Bell's vireo (*Vireo bellii pusillus*), San Bernardino kangaroo rat (*Dipodomys merriami parvus*), Stephens' kangaroo rat (*Dipodomys stephensi*) and many of the species designated as Species of Special Concern (SSC) by the CDFW and/or managed as sensitive by the BLM and/or USFS. With the exception of the species listed as Threatened or Endangered, these 94 species will not be discussed further. The remaining 2 special status/sensitive species were considered to have at least some potential for occurrence based on the presence of potentially suitable habitat and/or known geographic distribution (Tables 1-7). The special status species that were considered to have at least some (at least low) potential to occur on-site, in the action area and/or within the adjacent buffer zone area included one

invertebrate, and one reptile. These species are outlined in Tables 1-7 above, as well as discussed below.

6.1.1 Special Status Plant Species

The following federally and/or state listed plant species were determined to have no occurrence probability on the project site due to a lack of suitable habitat: marsh sandwort (*Arenaria paludicola*), Nevin's barberry (*Berberis nevinii*), thread-leaved brodiaea (*Brodiaea filifolia*), salt marsh bird's beak (*Chloropyron maritimum ssp. maritimum*), slender-horned spineflower (*Dodecahema leptoceras*), Santa Ana River woollystar (*Eriastrum densifolium ssp. sanctorum*), and Gambel's water cress (*Nasturtium gambelii*).

The entire project site is disturbed and landscaped with non-native grasses and a few native and non-native trees, with surrounding areas also being disturbed and occupied by urban development and landscaping. As a result, suitable habitat is not present for any of the above listed sensitive plant species in the project area or adjacent areas (Table 1). For these reasons, impacts to the above listed sensitive plant species are not anticipated to occur as a result of project implementation. No further actions are expected to be required for any of these sensitive plants.

6.1.2 Special Status Invertebrate Species

No suitable habitat for the federally endangered quino checkerspot butterfly is present on the project site, in the action area, or within adjacent areas (Table 3). The project site does not contain any of the favored habitat characteristics and is greatly lacking in sufficient nectar plants. For these reasons, this species is considered to be absent from the site and all adjacent areas. No further actions are recommended for the quino checkerspot butterfly.

No suitable habitat for the federally endangered Delhi sands flower-loving fly is present on the project site, in the action area, or within adjacent areas. The project site consists of landscaped non-native grassland and does not contain Delhi sands soils required by this species. The site is not located within the currently known range of this species. For these reasons, this species is considered to be absent from the site and all adjacent areas. No further actions are recommended for the Delhi sands flower-loving fly.

The only special status invertebrate species considered to have at least some potential of occurrence on-site is the monarch butterfly (*Danaus Plexippus*). Monarch butterfly is not currently listed as Threatened or Endangered by USFWS or CDFW. It is, however, currently a federal candidate for listing under the Endangered Species Act and designated as S2 by the CDFW, meaning that it is considered to be "imperiled" by the CDFW. As a result, this species is considered to be at high to very high risk of extirpation in California due to "a suite of interrelated factors including habitat loss in breeding and overwintering sites, habitat degradation, disease, pesticide exposure, and climate change".

Although the monarch butterfly was not observed during the assessment, the proposed project site falls within the geographic distribution area for this species, according to occurrence and observation records. However, although no suitable habitat, nectar sources, or larval host plants were found on site, WSP considers there to be a very low probability for this species to occur on site as a fly-over/move-through occurrence only. Because this species is not currently state listed as Threatened or Endangered, and the project is subject to CEQA compliance, impacts to monarch butterfly (if any) would not likely meet the threshold of significance under CEQA. For these reasons, focused surveys for monarch butterfly are not anticipated to be required.

6.1.3 Special Status Reptile Species

Habitat suitable for the proposed federally listed as Threatened southwestern pond turtle is not present anywhere on the project site, in the action area, or within adjacent areas (Table 4). The site, action area and adjacent lands are vegetated with non-native grassland and do not contain any required aquatic habitat. Furthermore, there are no records for southwestern pond within the vicinity (5-mile radius) of the project site. No further actions are recommended for southwestern pond turtle.

No suitable habitat for southern rubber boa is present at the project site or within the action area. This state listed species, is endemic to the Transverse Ranges, including the San Bernardino Mountains. Southern rubber boa is associated with rocky areas with logs and other surface cover in montane vegetation communities (coniferous and oak woodlands/forest) above 1524 m. (5000 ft.). The site is below this species elevational range, vegetated with non-native grassland (not pines or oaks) and does not provide sufficient rocky or other surface cover. For these reasons, this species is considered to be absent from the site and all adjacent areas. Further action in regard to southern rubber boa is not warranted, recommended or anticipated to be required for the proposed project.

The only special status reptile species that was considered to have at least some potential of occurrence on site is the coast horned lizard (*Phrynosoma blainvillii*). This species is known to occur in a variety of vegetation communities and is known from the vicinity. For these reasons WSP considers there to be a very low potential for coast horned lizard to occur on-site, in the action area and/or within adjacent areas. This species is not listed as Threatened or Endangered by either USFWS or CDFW. It is, however, designated as SSC's by CDFW. Although this species is declining, project-related impacts to this species (if any) would be incremental and localized. As a result, impacts (if any) to this species would not likely be considered significant under the CEQA.

6.1.4 Special Status Amphibian Species

There is no aquatic habitat on-site, within the action area or adjacent areas. As a result, suitable breeding habitat for federally Threatened California red-legged frog, federally and state Endangered southern mountain yellow-legged frog and proposed federally Threatened and state Species of Special Concern western spadefoot is not present on-site, in the action area or adjacent areas (Table 5). The site is not within designated critical habitat for any of the above listed species. For these reasons, impacts to the above listed special status amphibian species are not anticipated to occur as a result of project implementation. No further actions are recommended or expected to be required for the California red-legged frog, southern mountain yellow-legged frog, or western spadefoot.

6.1.5 Special Status Bird Species

The following federally and/or state listed bird species were determined to have no occurrence probability on the project site due to a lack of suitable habitat: Swainson's hawk, western yellow-billed cuckoo, southwestern willow flycatcher, bald eagle, California black rail, coastal California gnatcatcher, and least Bell's vireo.

The entire project site is disturbed and landscaped with non-native grasses and a few native and non-native trees, with surrounding areas also being disturbed and occupied by urban development and landscaping. As a result, suitable habitat is not present for any of the above listed sensitive bird species in the project area or adjacent areas (Table 6). For these reasons, impacts to the above listed sensitive bird species are not anticipated to occur, or be of significance, as a result of project implementation. With the exception of a general nesting bird pre-construction survey, as discussed below, no further actions are recommended or expected to be specifically required for Swainson's hawk, western yellow-billed cuckoo, southwestern willow flycatcher, bald eagle, California black rail, coastal California gnatcatcher, or least Bell's vireo.

6.1.6 Additional Bird Species Protected by the Migratory Bird Treaty Act

In addition to the above listed sensitive and special status bird species, there are a variety of common bird species that are protected by the MBTA. This includes virtually all native migratory and resident bird species, including birds already known to occur in the vicinity. Avoidance of impacts to these nesting migratory and resident birds is a requirement of the MBTA. In order to avoid impacting nesting birds, either an avoidance of project-related disturbance during the nesting season (generally from approximately January 15th through August 31st) or nesting bird surveys conducted by a qualified ornithologist or biologist immediately prior to on-site disturbance activities during the nesting season would be required.

If nesting birds are found, of any native species, no work would be permitted near the nest until young have fledged.

6.1.7 Special Status Mammal Species

Suitable scrub and/or grassland habitat for the federally and state listed Endangered San Bernardino kangaroo rat and the federally and state listed Threatened Stephens' kangaroo rat is not present on-site, within the action area or within a 152 m (500 ft) buffer zone (Table 7). For these reasons, these species are considered to be absent from the project site, action area and adjacent buffer zone areas. For these reasons, no further actions in regard to these species are recommended or anticipated to be required for the project.

Although small mammal trapping would be the only way to definitively determine the status of the above listed mammal species on-site, impacts, even if these mammal species are present, would be not likely meet the threshold of significance under the CEQA, given the project site's location and lack of suitable habitat. Therefore, mammal trapping surveys are not considered to be warranted.

6.1.8 Nesting Birds

The project site, contains minimal suitable nesting habitat for a variety of birds protected under the federal MBTA. Impacts to nesting birds, both direct and indirect, can be avoided by conducting project activities outside of the breeding season. Although nesting can occur year-round in southern California for some species, the typical avian breeding season is from approximately January 15th through August 31st, so it is recommended to schedule any required grading, vegetation clearance and/or the initial earth work between September 1 through mid-January to avoid potentially impacting nesting birds. If activities that involve ground or vegetation disturbance must be done during the nesting season, the project site and adjacent areas should be examined by a qualified biologist prior to disturbance, especially where there could be any direct impacts. If active nests are found, the nests should be avoided, and a no disturbance buffer zone established and observed until young have fledged. While there is no established protocol for nest avoidance and buffer zones, when consulted, the CDFW generally recommends avoidance buffers of 152 m (500 ft) for raptors and listed species and 30-91 m (100–300 ft) for other unlisted birds.

7.0 CONCLUSION

The habitat assessment conducted in July of 2024 determined that suitable habitat for the federal- and/or state-listed species known from the vicinity (i.e., marsh sandwort, Nevin's barberry, thread-leaved brodiaea, salt marsh bird's beak, slender-horned spineflower, Santa Ana River woollystar, Gambel's water cress, Crotch's bumblebee, quino checkerspot butterfly, Delhi sands flower-loving

fly, southwestern pond turtle, southern rubber boa, California red-legged frog, southern mountain yellow-legged frog, western spadefoot, Swainson's hawk, western yellow-billed cuckoo, southwestern willow flycatcher, bald eagle, California black rail, coastal California gnatcatcher, least Bell's vireo, San Bernardino kangaroo rat, and Stephens' kangaroo rat) is not present on and/or adjacent to the site and action area and therefore focused surveys for these species are not anticipated or expected to be required. The only covered species that are considered to have at least some (at least very low) potential to occur on-site and would potentially be affected by implementation of the proposed project include: monarch butterfly, and coast horned lizard. No special status wildlife species were detected on-site, in the action area or within the buffer zone during the site assessment. No burrows or burrow surrogates (manmade features such as culverts, pipe openings, etc.) capable of supporting burrowing owls were observed on or adjacent to the site. No rare plant species were found to occur on-site at the time of the site survey. The project site does not support habitat for any of the sensitive plant species known from the greater project area. As a result, potential project-related impacts to special status species are not expected. Further actions for special status plants or wildlife species are not anticipated or expected to be required.

Minimal nesting habitat for a variety of other birds protected by MBTA is also present along the outer boundaries of the project site. If project activities (i.e., site grading, vegetation removal/trimming, earthwork in undisturbed areas, etc.) are conducted during the nesting season (i.e., generally between January 15th and August 31st), a nesting bird clearance survey may be required to ensure impacts to nesting birds are avoided. If project activities are conducted outside of the nesting season, a nesting bird clearance survey would likely be avoided. Additional nesting bird surveys may be required if project vegetation clearance, grading and/or road improvements are not completed before the start of the nesting season (January 15th). If active bird nests or burrows are found, at any time, proposed project activities would need to be postponed until young have fledged the nest and impacts to nesting birds are entirely avoided.

No jurisdictional drainages or washes were observed on the project site. Therefore, jurisdictional delineation and permitting are not anticipated to be required.

In consideration of the results of the on-site habitat assessment and implementation of the recommendations above, impacts to special status species and nesting bird species protected by the MBTA are anticipated to be less than significant and avoided.

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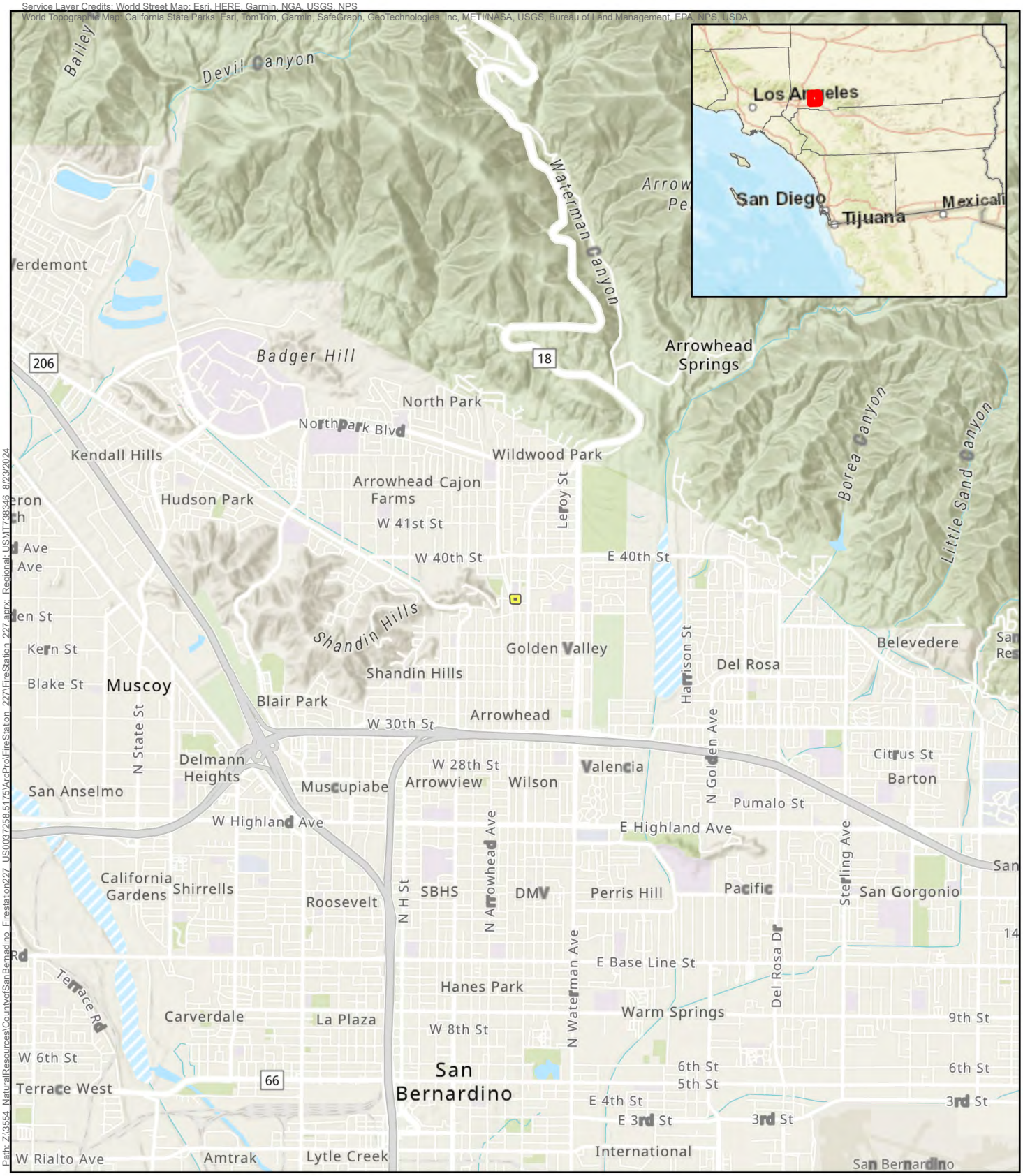
APPENDIX A

FIGURES

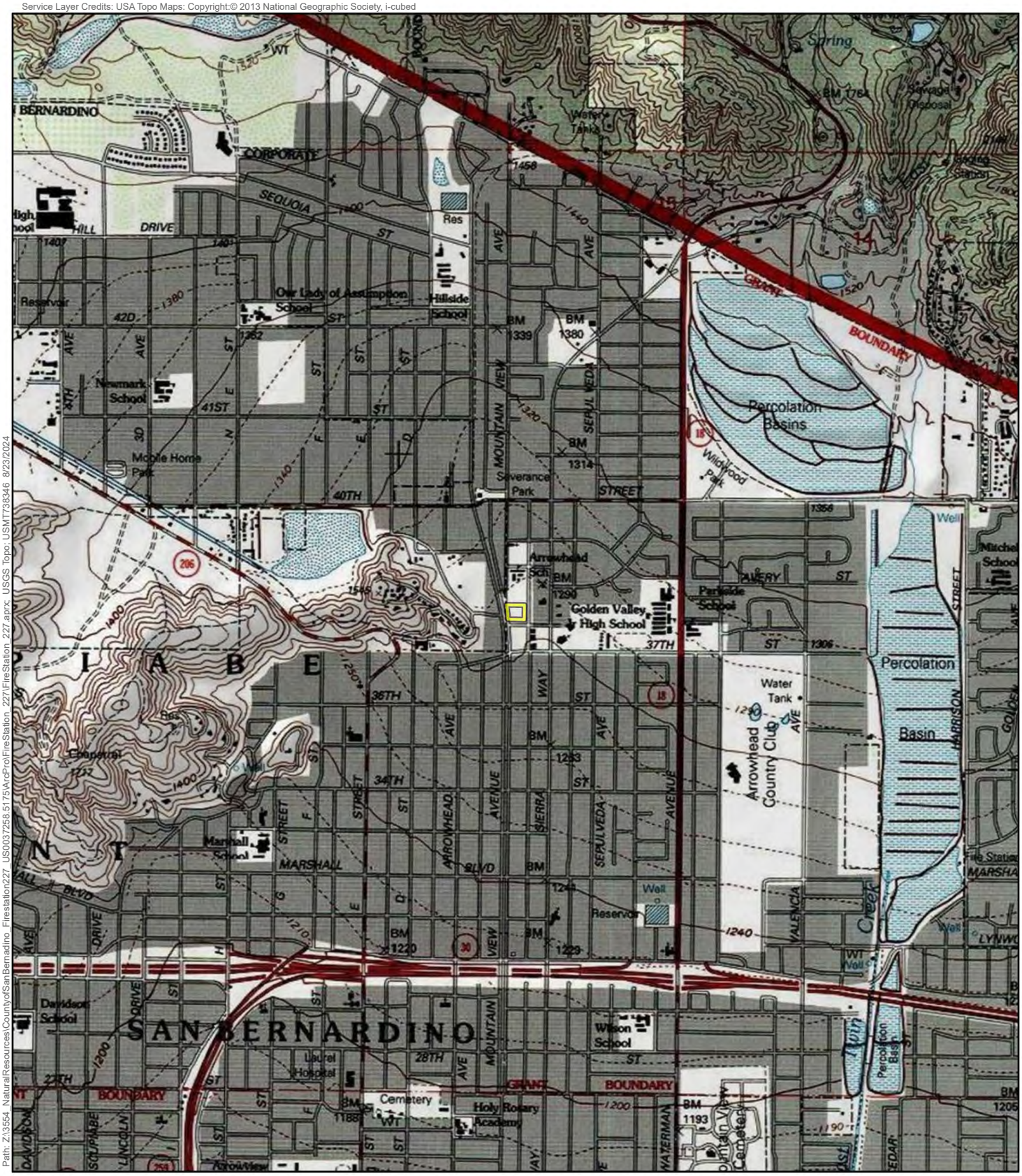


Project Boundary

FIGURE 1

Regional Vicinity
Biological Resource Assessment
County of San Bernardino Fire Station #227
San Bernardino, CA

Service Layer Credits: USA Topo Maps: Copyright:© 2013 National Geographic Society, i-cubed



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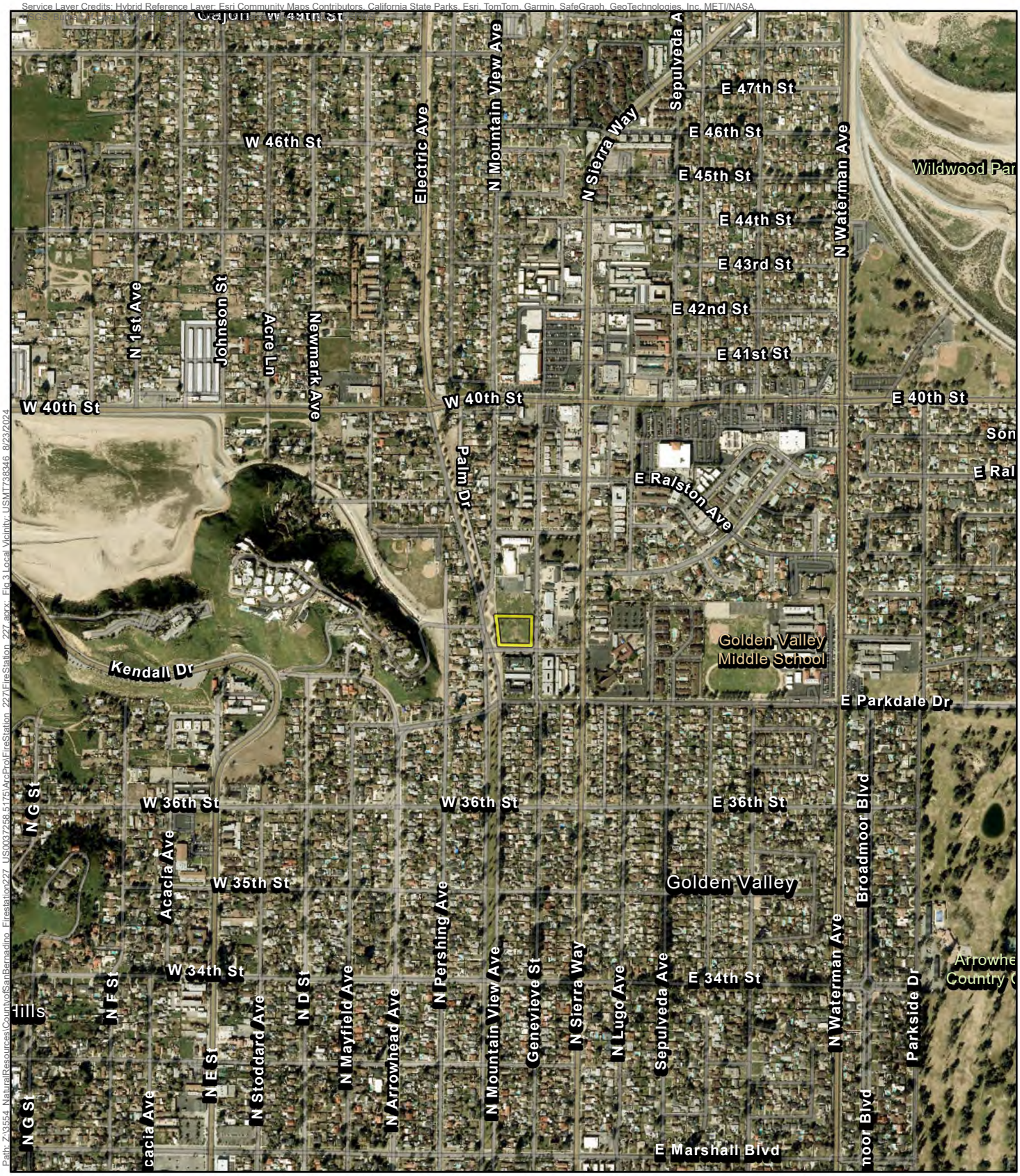
Project Boundary

FIGURE 2

USGS 7.5' Topo Quad: San Bernardino
Biological Resource Assessment
County of San Bernardino Fire Station #227
San Bernardino, CA



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Project Boundary

FIGURE 3

Local Vicinity
Biological Resource Assessment
County of San Bernardino Fire Station #227
San Bernardino, CA



FIGURE 4

Soils
Biological Resource Assessment
County of San Bernardino Fire Station #227
San Bernardino, CA



Project Boundary

Vegetation Type

Non-native grassland

FIGURE 5

Vegetation
Biological Resource Assessment
County of San Bernardino Fire Station #227
San Bernardino, CA

APPENDIX B

SPECIES LIST: VASCULAR PLANTS

APPENDIX B
Species List: Vascular Plants

This list reports only plants observed on the site by this study. Other species may have been overlooked or undetectable due to their growing season. Unless noted otherwise, nomenclature and systematics follows Jepson Flora Project (2023) = non-native species, sp. = identified only to genus, *cf*= compares favorably with]. Common names not provided by Jepson Flora Project follows those provided by USDA, NRCS (2023b). [†= *special status species,* * = non-native species, sp. = identified only to genus, *cf*= compares favorably with]

Anacardiaceae	**Sumac or Cashew Family**
*Pistacia chinensis**	Chinese pistachio*
Apiaceae	**Carrot Family**
*Cyclospermum leptophyllum**	marsh parsley*
Asteraceae	**Sunflower Family**
Helianthus annuus	hairy leaved sunflower
*Sonchus oleraceus**	sow thistle*
*Taraxacum officinale**	red seeded dandelion*
Brassicaceae	**Mustard Family**
Lepidium sp.	unknown pepperweed sp.
Convolvulaceae	**Morning Glory Family**
Dichondra sp.	unknown ponysfoot sp.
Cyperaceae	**Sedge Family**
*Cyperus rotundus**	nutgrass*
Euphorbiaceae	**Spurge Family**
*Euphorbia maculate**	spotted spurge*
Fabaceae	**Pea and Legume family**
Medicago polymorpha	California burclover
*Trifolium repens**	white clover*
Geraniaceae	**Geranium Family**
*Erodium cicutarium**	red-stemmed stork's bill*
Lauraceae	**Laurel Family**
*Cinnamomum camphora**	camphor tree*
Malvaceae	**Mallow Family**
*Malva parviflora**	cheeseweed*
*Modiola caroliniana**	Carolina bristle mallow*
Moraceae	**Mulberry Family**
*Morus alba**	mulberry*
Oleaceae	**Olive and Lilac Family**
Fraxinus sp.	unknown ash sp.

Onagraceae	**Evening Primrose Family**
Camissonia sp.	unidentified sun cup
Platanaceae	**Plane Family**
Platanus sp.	unknown plane tree sp.
Poaceae	**Grass Family**
*Cynodon dactylon**	Bermuda grass*
*Paspalum dilatatum**	dallis grass*
Polygonaceae	**Buckwheat Family**
*Polygonum aviculare**	prostrate knotweed*
Portulacaceae	**Purslane Family**
*Portulaca oleracea**	common purslane*
Zygophyllaceae	**Caltrop Family**
Tribulus terrestris	puncture vine

APPENDIX C

SPECIES LIST: VERTEBRATE AND INVERTEBRATE ANIMALS

APPENDIX C

Species List: Vertebrate and Invertebrate Animals

This list reports only the vertebrate animals observed or detected by WSP during the field assessment. Other species may have been overlooked or undetectable due to their activity patterns or weather conditions. High winds made species detection difficult and especially low at the time of the field assessment. [†= *special status species,* * = non-native species, sp. = identified only to genus, *cf* = compares favorably with]

VERTEBRATES	
Corvidae	**Jays/Crows**
Corvus corax	common raven
Fringillidae	**Finches**
Haemorhous mexicanus	house finch
Picidae	**Woodpeckers**
Melanerpes formicivorus	acorn woodpecker
Sciuridae	**Squirrels**
*Sciurus niger**	fox squirrel*
Tyrannidae	**Flycatchers**
Sayornis nigricans	black phoebe
INVERTEBRATES	
Apidae	**Honeybees and Bumble Bees**
*Apis mellifera**	Western honeybee*
Libellulidae	**Dragonfly Family**
Paltothemis lineatipes	red rock skimmer
Vespidae	**Paper Wasps & Potter Wasps**
Polistes exclamans	common paper wasp

APPENDIX D

PHOTOGRAPHIC EXHIBITS



Photo 1. Facing southeast/south (compass above is in error), exhibiting the view from the northwest corner of the project site.



Photo 2. Facing east/southeast (compass above is in error), exhibiting the view from the northwest corner of the project site.



Photo 3. Facing southwest, exhibiting the view from the northeast corner of the project site.

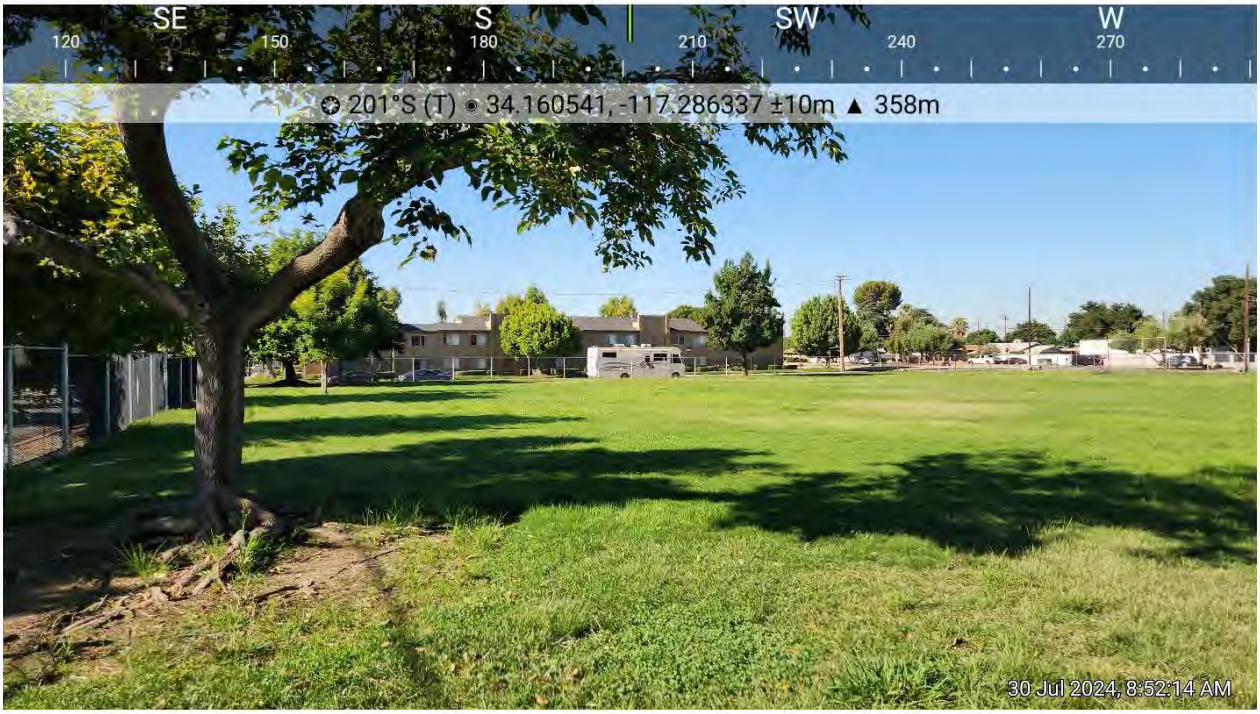

Photo 4. Facing south/southwest, exhibiting the view from the northeast corner of the project site.



Photo 5. Facing northwest/north, exhibiting the view from the southeast corner of the project site.



Photo 6. Facing west/northwest, exhibiting the view from the southeast corner of the project site.



Photo 7. Facing northeast/east, exhibiting the view from the southwest corner of the project site.



Photo 8. Facing north/northeast, exhibiting the view from the southwest corner of the project site.



Photo 9. Facing north, exhibiting the view from the south side of the project site. Also exhibiting the other portion of the existing Arrowhead Elementary School campus on the north side of the project site.



Photo 10. Facing south, exhibiting the view from the north side of the project site.



Photo 11. Facing south, exhibiting the surrounding area immediately adjacent to the west side of the project site.



Photo 12. Facing northeast, exhibiting the surrounding area immediately adjacent to the southwest corner of the project site.



Photo 13. Facing east, exhibiting the surrounding area immediately adjacent to the south end of the project site.



Photo 14. Facing west/northwest, exhibiting the surrounding area immediately adjacent to the south end and southeast corner of the project site.

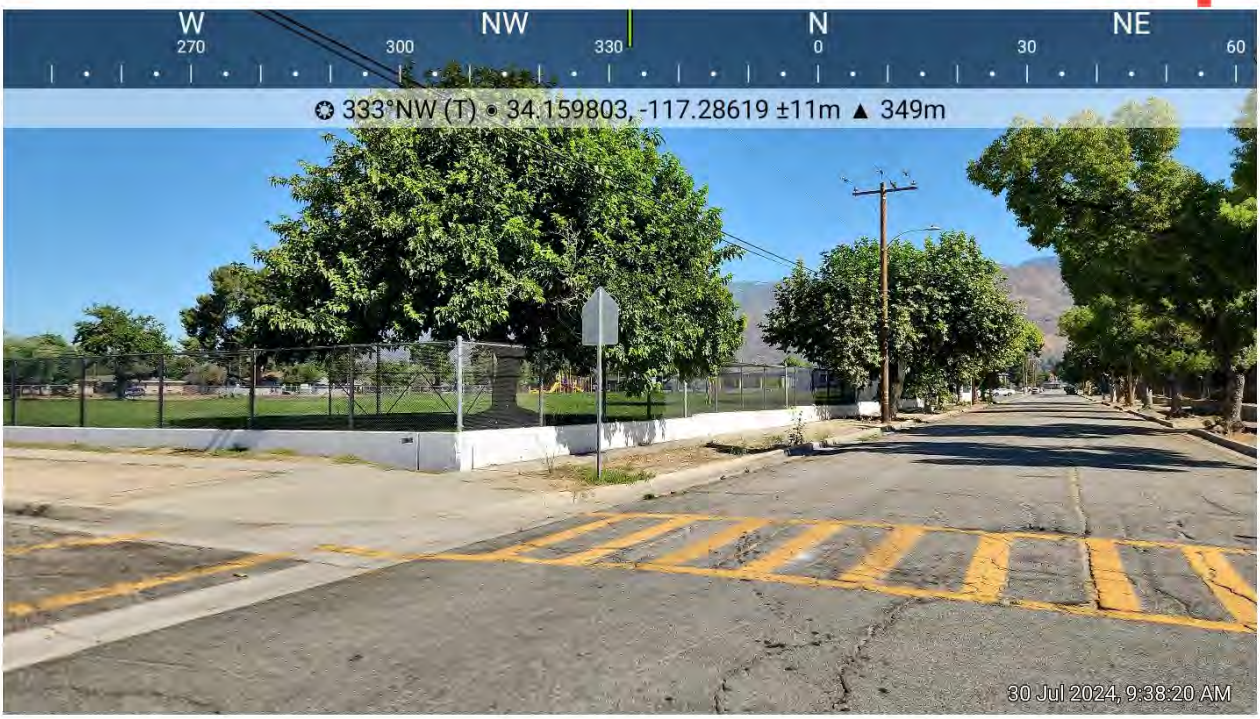

Photo 15. Facing northwest/north, exhibiting the surrounding area immediately adjacent to the southeast corner and east side of the project site.

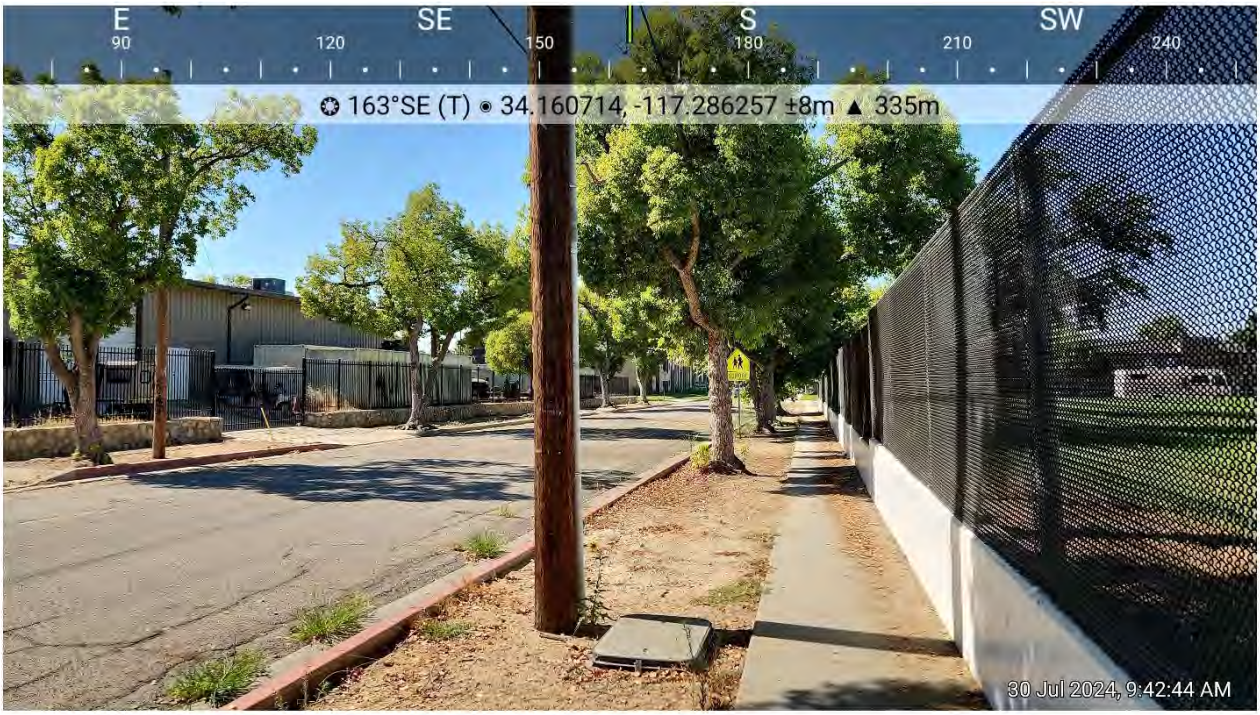

Photo 16. Facing southeast/south, exhibiting the surrounding area immediately adjacent to the east side of the project site.