Michael Baker
INTERNATIONAL

We Make a Difference

February 27, 2023 JN 188524

REDLANDS SUMMIT, LLC
Attn: *Mr. Patrick Meyer*
1705 Oak Grove Ave
San Marino, CA 91108

SUBJECT: Results of a Biological Resources Assessment for the Proposed Neighborhoods at Lugonia Village – City of Redlands, County of San Bernardino, California

Dear Mr. Meyer:

Michael Baker International (Michael Baker) has prepared this report to document the results of a biological resources assessment for the proposed Neighborhoods at Lugonia Village (project or project site) located in the City of Redlands, County of San Bernardino, California. Michael Baker conducted a thorough literature review and a field survey to confirm existing site conditions and assess the potential for special-status plant and wildlife species[1] that have been documented or that are likely to occur on or within the immediate vicinity of the project site. Specifically, this report provides a detailed assessment of the suitability of the on-site habitat to support special-status plant and wildlife species that were identified in the California Department of Fish and Wildlife (CDFW) California Natural Diversity Database RareFind 5 (CNDDB; CDFW 2022a), the California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants of California (CIRP; CNPS 2022), the U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation Project Planning Tool (IPaC; USFWS 2022a), and other databases as potentially occurring in the vicinity of the project site.

Project Location

The project site is generally located north of West Lugonia Avenue, east of Interstate 210, south of West San Bernardino Avenue, and west of Karon Street in the City of Redlands, County of San Bernardino, California (refer to Figure 1, *Regional and Project Vicinity*, in Attachment A). The project site is depicted in Section 21 of Township 1 South, Range 3 West, on the U.S. Geological Survey's (USGS) *Redlands*, *California* 7.5-minute quadrangle. The site is approximately 24.43 acres and encompasses Assessor's

[1] As used in this report, "special-status" refers to plant and wildlife species that are federally-/State-listed, proposed, or candidates; plant species that have been designated a California Rare Plant Rank species by the California Native Plant Society; wildlife species that are designated by the California Department of Fish and Wildlife as Fully Protected, Species of Special Concern, or Watch List species; State/locally rare vegetation communities; and species that warrant protection under local or regional preservation policies.

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Parcel Numbers (APN) 0167-171-04-0000, 0167-171-05-0000, and 0167-171-06-0000 (refer to Figure 2, *Project Site*, in Attachment A).

Project Description

The proposed project would involve a General Plan Amendment, Specific Plan Amendment, Zone Change, Tentative Tract and Parcel Maps, and related development applications to allow for the construction of a mixture of multi-family, townhomes, and single-family residential development for a total of 520 residential units.

Specifically, the multi-family residential development would include one- to three-story buildings in the southern portion of the site with a total of 430 units, consisting of 18 studio units, 185 one-bedroom units, and 227 two-bedroom units. The townhome development would include 70 units and would be located in the northern portion of the site. The single-family development would include 20 dwelling units along Karon Street.

There would be a total of 759 parking spaces, including garages, carports, parallel parking, and open stall parking spaces provided for the multi-family development. A total of 159 parking spaces, consisting of 140 garage and 19 open stall parking spaces would be provided for the townhome development A total of 20 two-car garages (attached to the individual single-family dwellings) would be constructed for the single-family development.

The project would include amenities such as multi-purpose rooms, mailrooms, clubhouses, pools, jacuzzies, barbeques, among others. Common (i.e., courtyards) and private open spaces (i.e., patios and balconies) as well as ornamental landscaping would be provided throughout the project site.

Project construction would occur over approximately 31 months. Common construction phases would include grading, building construction, paving, and architectural coating.

Methodology

Literature Review

Michael Baker conducted thorough literature reviews and record searches within a 5-mile radius to determine which special-status biological resources have the potential to occur on or within the general vicinity of the project site. Previous special-status plant and wildlife species occurrence records within the USGS *Harrison Mountain, Redlands, San Bernardino North, San Bernardino South*, and *Yucaipa, California* 7.5-minute quadrangles were determined through a query of the CNDDB (CDFW 2022a) and CIRP (CNPS 2022), and for the project region through a review of the IPaC (USFWS 2022a).

The current regulatory/conservation status of special-status plant and wildlife species was verified through lists and resources provided by the CDFW, specifically the *Special Animals List* (CDFW 2022b), *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2022c), *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2022d), and *State and Federally Listed Endangered, Threatened, and Rare Plants of California* (CDFW 2022e). USFWS-designated Critical Habitat for species

listed under the federal Endangered Species Act (FESA) was reviewed online via the Environmental Conservation Online System: Threatened and Endangered Species Active Critical Habitat Report (USFWS 2022b). In addition, Michael Baker reviewed previously prepared reports, survey results, and literature, as available, detailing the biological resources previously observed on or within the vicinity of the project site to understand existing site conditions, confirm previous species observations, and note the extent of any disturbances, if present, that have occurred within the project site that would otherwise limit the distribution of special-status biological resources. Standard field guides and texts were reviewed for specific habitat requirements of special-status species, as well as the following resources:

- Calflora Database (Calflora 2022)
- Google Earth Pro Historical Aerial Imagery from 1985 to 2021 (Google, Inc. 2022)
- Species Accounts provided by Birds of the World (Billerman et. al 2020)
- Cornell Lab of Ornithology's eBird Database (eBird 2022)
- *Custom Soil Resource Report for San Bernardino County Southwestern Part, California* (U.S. Department of Agriculture [USDA] 2022)
- USFWS Critical Habitat Mapper and Environmental Conservation Online System (USFWS 2022b)

Biological Field Survey/Habitat Assessment

Michael Baker biologists Ryan Winkleman and Tom Millington conducted a biological field survey/habitat assessment of the project site and a 500-foot buffer (survey area) on April 5, 2022. The purpose of the survey was to document existing conditions and assess the potential for special-status biological resources to occur within the boundaries of the project site. Michael Baker biologists were able to survey the entire project site without any limitations or access restrictions but were only able to survey the open space portions of the surrounding survey area, which is partially private residential and commercial development. Refer to Table 1 below for a summary of the survey date, timing, surveyors, and weather conditions.

Table 1: Survey Date, Time, Surveyors, and Weather Conditions

Date	Time (start / finish)	Surveyors	Weather Conditions (start / finish)	
			Temperature (°F)	Wind Speed (mph)
April 5, 2022	1000 / 1125	Ryan Winkleman, Tom Millington	77 sunny / 80 sunny	0 – 6

Vegetation communities occurring within the project site were mapped on an aerial photograph and classified in accordance with the vegetation descriptions provided in *A Manual of California Vegetation* (Sawyer et al. 2009) and cross referenced with the *California Sensitive Natural Communities List* (CDFW 2021) to determine which communities may qualify as special-status under CDFW's current mapping, and the *Preliminary Descriptions of the Terrestrial Natural Communities of California* (Holland 1986) for the purposes of evaluating the presence or absence of special-status vegetation communities identified in the CNDDB records search, which still uses the now-outdated Holland vegetation classification system. In

addition, site characteristics such as soil condition, topography, hydrology, anthropogenic disturbances, indicator species, condition of on-site vegetation communities, and the presence of potentially regulated jurisdictional features (e.g., streams, flood control channels) were noted within the project site. Michael Baker used Geographic Information Systems (GIS) ArcView software to digitize the mapped vegetation communities and then transferred these data onto an aerial photograph to further document existing conditions and quantify the acreage of each vegetation community.

All plant and wildlife species observed/detected, as well as dominant plant species within each vegetation community, were recorded. Plant species observed during the field survey were identified by visual characteristics and morphology in the field, while unusual and less familiar plant species were photographed and identified later using taxonomic guides. Plant nomenclature used in this report follows Jepson eFlora (Jepson Flora Project 2022) and scientific names are provided immediately following common names of plant species (first reference only).

Wildlife species were identified by sight, calls, tracks, scat, or other types of evidence. Field guides used to assist with identification of wildlife species during the habitat assessment included *The Sibley Guide to Birds* (Sibley 2014), *A Field Guide to Western Reptiles and Amphibians* (Stebbins 2003), *Bats of the United States and Canada* (Harvey et al. 2011), and *A Field Guide to Mammals of North America* (Reid 2006). Although common names of wildlife species are well standardized, scientific names are provided immediately following common names of wildlife species in this report (first reference only). To the extent possible, nomenclature of birds follows the most recent annual supplement of the American Ornithological Society's *Checklist of North American Birds* (Chesser et al. 2020), nomenclature of amphibians and reptiles follows *Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, with Comments Regarding Confidence in Our Understanding* (Crother 2017), and nomenclature for mammals follows the *Revised Checklist of North American Mammals North of Mexico* (Bradley et al. 2014).

Burrowing Owl Focused Surveys

A series of four protocol-level surveys were conducted for burrowing owl (*Athene cunicularia*; a State Species of Special Concern [SSC]) by Michael Baker's biologists within suitable habitat in the project site and within a 500-foot buffer between April and June 2022 in accordance with the survey guidelines and protocols provided in the *Staff Report on Burrowing Owl Mitigation* (CDFG 2012). A detailed description of methodology and results is provided under separate cover.

Existing Site Conditions

The project site is flat with an approximate elevation range of 1,305 to 1,290 feet above mean sea level, sloping slightly downwards to the west. According to the *Custom Soil Resource Report for San Bernardino County Southwestern Part, California* (USDA 2022), the project site is underlain by the following soil units: Hanford sandy loam, 0 to 2 percent slopes (HbA) and Tujunga loamy sand, 0 to 5 percent slopes (TuB) (refer to Figure 3, *USDA Soils*, in Attachment A). Based on a review of historic aerial imagery

(Google, Inc. 2022) and results from the field survey, the project site has been subjected to continual weed abatement since at least 1985 with non-native and native ruderal vegetation. Surface soils within the project site were moderately disturbed due to these activities. Refer to Attachment B for representative photographs of the project site taken during the field survey.

Vegetation Communities and Land Cover Types

There were no natural vegetation communities observed within the entire 24.43-acre project site. Instead, ground cover consists primarily of disturbed habitat with some developed areas (refer to Figure 4, *Vegetation Communities and Other Land Uses*, in Attachment A).

Disturbed

Approximately 24.08 acres of the project site consist of disturbed land. These are areas that are subject to continual weed abatement and as a result contain compacted bare or sparsely vegetated ground. Where present, vegetation in this community is dominated by native and non-native ruderal species, including annual bursage (*Ambrosia acanthicarpa*), common fiddleneck (*Amsinckia intermedia*), red brome (*Bromus rubens*), and London rocket (*Sisymbrium irio*).

Developed

Approximately 0.35 acre of the project site consists of developed land. This is mapped in the southeast corner of the project site at the corner of Karon Street and West Lugonia Avenue and consists of paved roadway.

Wildlife

Natural vegetation communities provide foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. This section provides a general discussion of common wildlife species that have been detected on-site by Michael Baker or that are expected to occur based on existing site conditions. The discussion is to be used as a general reference and is limited by the season, time of day, and weather conditions during the field survey.

Fish

No fish or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would support populations of fish were observed in the project site during the field survey. Therefore, no fish are expected to occur.

Amphibians

No amphibians or hydrogeomorphic features (e.g., perennial creeks, ponds, lakes, reservoirs) that would provide suitable breeding habitat for amphibians were observed within the project site during the field survey. Therefore, no amphibians are expected to occur.

Reptiles

One (1) reptile species was observed in the project site during the field survey: western side-blotched lizard (*Uta stansburiana elegans*). The project site is expected to provide habitat for a limited number of reptilian species that are acclimated to edge or urban environments. Other common reptilian species that may be present within the project site include Great Basin fence lizard (*Sceloporus occidentalis longipes*) and Pacific gophersnake (*Pituophis catenifer catenifer*).

Birds

A total of nineteen (19) bird species were detected during the field survey, some of which included American crow (*Corvus brachyrhynchos*), common raven (*Corvus corax*), white-crowned sparrow (*Zonotrichia leucophrys*), house finch (*Haemorhous mexicanus*), northern mockingbird (*Mimus polyglottos*), and western meadowlark (*Sturnella neglecta*). For a full list of observed species refer to Attachment C.

Nesting birds are protected pursuant to the federal Migratory Bird Treaty Act (MBTA) of 1918 and the California Fish and Game Code (CFGC)[2]. To maintain compliance with the MBTA and CFGC, clearance surveys are typically required prior to any ground disturbance or vegetation removal activities to avoid direct or indirect impacts to active bird nests and/or nesting birds. Consequently, if an active bird nest is destroyed or if project activities result in indirect impacts (e.g., nest abandonment, loss of reproductive effort) to nesting birds, it is considered "take" and is potentially punishable by fines and/or imprisonment. Although the project site provides suitable nesting habitat for various year-round and seasonal bird species, no active nests or birds displaying overt nesting behavior were observed during the field survey.

Mammals

The project site provides marginal habitat for a limited number of mammalian species adapted to living in edge or urban environments. Long-tailed weasel (*Mustela frenata*) and California ground squirrel (*Otospermophilus beecheyi*) were the only mammal species observed during the field survey. Other common mammalian species that may occur within the project site include opossum (*Didelphis virginiana*), racoon (*Procyon lotor*), and domestic dog (*Canis lupus familiaris*). Bats occur throughout most of California and generally are not expected to occur within the project site due to the absence of suitable foraging and/or roosting habitat (e.g., hollow tree trunks/limbs, tree foliage, caves, bridges, buildings) for most bat species. However, western yellow bat (*Lasiurus xanthinus*; a State SSC), which is known to roost in palm trees, has a low potential to occur on-site, particularly in the skirts of the two Mexican fan palms

[2] Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the California Fish and Game Code or any regulation made pursuant thereto; Section 3503.5 makes it unlawful to take, possess, or destroy any birds in the orders Falconiformes or Strigiformes (birds-of-prey); and Section 3513 makes it unlawful to take or possess any migratory non-game bird except as provided by the rules and regulations adopted by the Secretary of the Interior under provisions of the Migratory Bird Treaty Act, as amended (16 U.S.C. § 703 *et seq.*).

that are located just west of the corner of West Lugonia Avenue and Karon Street in the southeast corner of the project site.

Migratory Corridors and Linkages

Wildlife corridors and linkages are key features for wildlife movement between habitat patches. Wildlife corridors are generally defined as those areas that provide opportunities for individuals or local populations to conduct seasonal migrations, permanent dispersals, or daily commutes, while linkages generally refer to broader areas that provide movement opportunities for multiple keystone/focal species or allow for propagation of ecological processes (e.g., for movement of pollinators), often between areas of conserved land.

The project site is not located within any wildlife corridors. The project site is surrounded by a mixture of developed and undeveloped land on all sides, with minimal opportunities for movement to the south and essentially no movement opportunities to the east and west. The Santa Ana River Wash is located approximately 1.25 miles to the north but is separated from the project site by numerous roads and existing developments. Any wildlife movement across the site is more likely to be local movements than regional. However, the surrounding residential land uses and existing roadways have fragmented the connection between the project site and other undeveloped areas in the vicinity and region. The disturbed and developed landscape of the project site and absence of native vegetation for cover most likely limits the movement of wildlife through the project site. In addition, wildlife movement into or out of the project site is likely reduced by the presence of surrounding high-traffic roadways (e.g., West Lugonia Avenue, West San Bernardino Avenue, and Interstate 210) and existing residential developments. Further, elevated noise levels, vehicle traffic, lighting, and human presence associated with the surrounding residential and commercial developments and roadways decrease the suitability of the project site to be used as a wildlife movement corridor or linkage.

State and Federal Jurisdictional Resources

There are three agencies that regulate activities within inland streams, wetlands, and riparian areas in California. The U.S. Army Corps of Engineers (USACE) Regulatory Branch regulates discharge of dredged or fill material into "waters of the U.S." pursuant to Section 404 of the federal Clean Water Act (CWA) and Section 10 of the Rivers and Harbors Act. Of the State agencies, the Regional Water Quality Control Board (RWQCB) regulates discharges to surface waters pursuant to Section 401 of the CWA and Section 13263 of the California Porter-Cologne Water Quality Control Act, and the CDFW regulates alterations to streambed and associated vegetation communities under Section 1600 *et seq*. of the CFGC.

No potential jurisdictional drainages or wetland features were observed within the boundaries of the project site. Therefore, development of the proposed project is not expected to result in impacts to State or federal jurisdictional areas or require regulatory approvals/permits from the USACE, RWQCB, or CDFW.

Special-Status Biological Resources

The CNDDB (CDFW 2022a), CIRP (CNPS 2022), and IPaC (USFWS 2022a) were queried for reported locations of special-status plant and wildlife species as well as special-status natural vegetation communities in the USGS *Harrison Mountain, Redlands, San Bernardino North, San Bernardino South,* and *Yucaipa, California* 7.5-minute quadrangles. The biological field survey/habitat assessment was conducted to assess and evaluate the conditions of the habitat(s) within the boundaries of the project site to determine if the existing vegetation communities, at the time of the field survey, have the potential to provide suitable habitat(s) for special-status plant and wildlife species. Additionally, the potentials for special-status species to occur within the project site were determined based on the reported occurrence locations in the CNDDB, CIRP, and Calflora databases and the following criteria:

- **Present**: the species was observed or detected within the project site during the field survey.
- **High**: Recent (within 20 years) occurrence records indicate that the species has been known to occur on or within 1 mile of the project site and the site is within the normal expected range of this species. Intact, suitable habitat preferred by this species occurs within the project site and/or there is viable landscape connectivity to a local known extant population(s) or sighting(s).
- **Moderate**: Recent (within 20 years) occurrence records indicate that the species has been known to occur within 1 mile of the project site and the project site is within the normal expected range of this species. There is suitable habitat within the project site, but the site is ecologically isolated from any local known extant populations or sightings.
- **Low**: Recent (within 20 years) occurrence records indicate that the species has been known to occur within 5 miles of the project site, but the site is outside of the normal expected range of the species and/or there is poor quality or marginal habitat within the project site.
- **Not Expected**: There are no occurrence records of the species occurring within 5 miles of the project site, there is no suitable habitat within the project site, and/or the project site is outside of the normal expected range for the species.

Sixty-nine (69) special-status plant species and fifty-two (52) special-status wildlife species were identified during the review of the CNDDB and CIRP as occurring within the USGS *Harrison Mountain, Redlands, San Bernardino North, San Bernardino South,* and *Yucaipa, California* 7.5-minute quadrangles and in the IPaC for the project region. In addition, eight (8) special-status vegetation communities were identified. Special-status plant and wildlife species were evaluated for their potential to occur within the project site based on specific habitat requirements, availability/quality of suitable habitat, and known distributions of species/populations. Special-status biological resources identified during the literature review are presented in *Table C-1: Potentially Occurring Special-Status Biological Resources*, provided in Attachment C.

Special-Status Plants

A total of sixty-nine (69) special-status plant species have been recorded in the USGS *Harrison Mountain, Redlands, San Bernardino North, San Bernardino South,* and *Yucaipa, California* 7.5-minute quadrangles by the CNDDB and CIRP and in the project region by the IPaC (refer to Attachment C). There were no special-status plants identified in the project site during the field survey. Based on the results of the field survey and a review of specific habitat preferences, distributions, and elevation ranges, Michael Baker determined that none of the special-status plant species identified by the CNDDB, CIRP, and IPaC are expected to occur within the project site.

Special-Status Wildlife

A total of fifty-two (52) special-status wildlife species have been recorded in the USGS *Harrison Mountain, Redlands, San Bernardino North, San Bernardino South,* and *Yucaipa, California* 7.5-minute quadrangles by the CNDDB and in the project region by the IPaC (refer to Attachment C). Loggerhead shrike (*Lanius ludovicianus*; a State SSC) was the only special-status wildlife species observed during the field survey, but due to a lack of nesting habitat and this species' status as a breeding bird along the southern California coastal slope, the bird that was observed was more likely a transient or lingering wintering bird that hadn't yet made it back to its breeding territory. Based on the results of the field survey and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, Michael Baker determined that the project site has a high potential to support Cooper's hawk (*Accipiter cooperii*; a State Watch List [WL] species) as a foraging species, with a low potential to nest, and a moderate potential to support foraging and nesting burrowing owl and southern California legless lizard (*Anniella stebbinsi;* a State SSC), and California horned lark (*Eremophila alpestris actia*; a State WL species). All remaining special-status wildlife species identified by the CNDDB and IPaC either have a low potential or are not expected to occur within the project site.

Due to its regional significance in the project area, burrowing owl is described in further detail below.

<u>Burrowing Owl</u>

The burrowing owl is a grassland specialist distributed throughout western North America where it occupies open areas with short vegetation and bare ground within shrub, desert, and grassland environments. Burrowing owls use a wide variety of arid and semi-arid environments with well-drained, level to gently-sloping areas characterized by sparse vegetation and bare ground (Haug and Didiuk 1993; Dechant *et al.* 1999). Burrowing owls are dependent upon the presence of burrowing mammals (e.g., California ground squirrels, coyotes, American badger [*Taxidea taxus*]) whose burrows are used for roosting and nesting. The presence or absence of mammal burrows is often a major factor that limits the presence or absence of burrowing owls. Where mammal burrows are scarce, burrowing owls have been found occupying man-made cavities, such as buried and non-functioning drain pipes, stand-pipes, and dry culverts. Burrowing owls may also burrow beneath rocks and debris or large, heavy objects such as abandoned cars, concrete

blocks, or concrete pads. They also require open vegetation allowing open line-of-sight of the surrounding habitat to forage as well as watch for predators.

According to the CNDDB, there are four (4) occurrence records for burrowing owl within the USGS *Harrison Mountain, Redlands, San Bernardino North, San Bernardino South,* and *Yucaipa, California* 7.5-minute quadrangles. The closest extant occurrence (Occurrence Number 314) was recorded in 1983, approximately 2.25 miles northwest of the project site; there was an undetermined number of burrowing owls using the burrow site at the time of the record (CDFW 2022a). Additionally, another occurrence (Occurrence Number 1784) was recorded in 2006, approximately 3.45 miles to the northwest of the project site; six adults and 3 juveniles were detected within 0.25 mile of one another (CDFW 2022a). In addition, there is a large number of records of this species in the eBird database, both within and just outside of a 5-mile radius from the project site (eBird 2022). It should be noted that most of these were at the San Bernardino International Airport to the northwest of the project site and a lack of records in eBird over the last five years would indicate local extirpation.

The project site is located near existing residential and commercial developments, with West Lugonia Avenue immediately to the south and Interstate 210 directly to the west of the site. In addition, there are several utility poles along West Lugonia Avenue, Karon Street, and other nearby roadways that could provide perching opportunities for predatory raptors. California ground squirrels were observed throughout the majority of the project site during the field survey and could provide suitable burrows for nesting burrowing owls, if present. As a result, the project site was determined to have moderate potential to support burrowing owl. It should be noted that no burrowing owls or burrowing owl sign were found during the 2022 focused surveys.

Special-Status Vegetation Communities

Eight (8) special-status vegetation communities have been reported in the USGS *Harrison Mountain, Redlands, San Bernardino North, San Bernardino South*, and *Yucaipa, California* 7.5-minute quadrangles by the CNDDB: 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 Scrub, Southern Sycamore Alder Riparian Woodland, and Southern Willow Scrub. These special-status vegetation communities identified by the CNDDB were not observed during the field survey, and no other special-status vegetation communities were observed.

Critical Habitat

Under the definition included in the FESA, designated Critical Habitat refers to specific areas within the geographical range of a species that were occupied at the time it was listed that contain the physical or biological features that are essential to the survival and eventual recovery of that species. Areas of Critical Habitat may require special management considerations or protection, regardless of whether the species is still extant in the area. Areas that were not known to be occupied at the time a species was listed can also be designated Critical Habitat if they contain one or more of the physical or biological features that are

essential to that species' conservation and if the other areas that are occupied are inadequate to ensure the species' recovery. If a project may result in take or adverse modification to a species' designated Critical Habitat and the project has a federal nexus, the project proponent may be required to provide suitable mitigation. Projects with a federal nexus may include projects that occur on federal lands, require federal permits (e.g., CWA Section 404 permit), or receive any federal oversight or funding. If there is a federal nexus, then the federal agency that is responsible for providing funds or permits would be required to consult with the USFWS pursuant to the FESA.

The project site is not located within USFWS-designated Critical Habitat for any federally listed species (refer to Figure 5, *Critical Habitat*, in Attachment A).

Conclusions and Recommendations

Approximately 24.08 acres of disturbed land and 0.35 acre of developed land were observed and mapped within the boundaries of the project site during the field survey.

No special-status plant species were observed within the project site during the field survey. Based on the results of the field survey and a review of specific habitat preferences, distributions, and elevation ranges, Michael Baker determined that none of the special-status plant species identified by the CNDDB, CIRP, and IPaC are expected to occur within the project site.

Loggerhead shrike (a State SSC) was the only special-status wildlife species observed during the field survey. This species may forage on the site but would not nest and based on the on-site habitat and its regional status the bird that was observed was likely either a lingering wintering bird or a transient migrant. Based on the results of the field survey and a review of specific habitat preferences, occurrence records, known distributions, and elevation ranges, Michael Baker determined that the project site also has a high potential to support foraging Cooper's hawk (a State WL species) and a moderate potential to support burrowing owl (a State SSC), southern California legless lizard (a State SSC), and California horned lark (a State WL species). The project site is located near existing residential and institutional developments and several utility poles are located along nearby roadways that could provide perching opportunities for predatory raptors. California ground squirrels were observed throughout the majority of the project site during the field survey and could provide suitable burrows for nesting burrowing owls, if present. There are two records (2014 and 2016) of California legless lizard occurring in the field immediately west of and adjacent to the project site. Although this would ordinarily qualify as a high potential to occur on the project site due to the recent dates of the records and the very close distance to the project site, because the conditions of the adjacent field were very different at the time of the records (the adjacent field was used as an orchard with probable supplemental irrigation) than they are now (all trees were cleared in the adjacent field by 2018, leaving a predominance of weeds), the likelihood to occur within the project site is reduced to a moderate potential due to the drastic change in habitat conditions. California horned larks may forage and nest within the project site. Cooper's hawks are not expected to nest within the project site or immediate vicinity due to a lack of deciduous trees and/or habitats. However, since there is suitable prey and perch spots (i.e., telephone and light poles), the project site could still be used as foraging habitat by this species.

All remaining special-status wildlife species identified by the CNDDB and IPaC are not expected to occur within the project site.

In order to avoid and/or minimize potential impacts to biological resources, it is recommended that the following Avoidance and Minimization Measures (AMM) be implemented:

AMM BIO-1: If project-related activities are to be initiated during the nesting season (January 1 to August 31), a pre-construction nesting bird clearance survey shall be conducted by a qualified biologist no more than three (3) days prior to the start of any vegetation removal or ground disturbing activities. The qualified biologist shall survey all suitable nesting habitat within the project impact area, and areas within a biologically defensible buffer zone surrounding the project impact area. If no active bird nests are detected during the clearance survey, project activities may begin, and no additional avoidance and minimization measures shall be required. If an active bird nest is found, the species shall be identified, and a "no-disturbance" buffer shall be established around the active nest. The size of the "no-disturbance" buffer shall be increased or decreased based on the judgement of the qualified biologist and level of activity and sensitivity of the species. The qualified biologist shall periodically monitor any active bird nests to determine if project-related activities occurring outside the "no-disturbance" buffer disturb the birds and if the buffer should be increased. Once the young have fledged and left the nest, or the nest otherwise becomes inactive under natural conditions, project activities within the "no-disturbance" buffer may occur following an additional survey by the qualified biologist to search for any new bird nests in the restricted area.

AMM BIO-2: A pre-construction burrowing owl clearance survey shall be conducted no less than 14 days prior to any vegetation removal or ground disturbing activities to avoid impacts to burrowing owls and/or occupied burrows. The pre-construction clearance survey shall be conducted by a qualified biologist and in accordance with the methods outlined in the *Staff Report on Burrowing Owl Mitigation* (California Department of Fish and Game 2012). A second clearance survey shall be conducted within 24 hours prior to ground disturbance. Documentation of surveys and findings shall be submitted to the City of Redlands for review and file. If no burrowing owls or occupied burrows are detected, project activities may begin, and no additional avoidance and minimization measures shall be required.

If an occupied burrow is found outside, but within 500 feet, of the development footprint, the qualified biologist shall establish a "no-disturbance" buffer around the burrow location(s). The size of the "no-disturbance" buffer shall be determined in consultation with CDFW and be based on the species status (i.e., breeding, non-breeding) and proposed level of disturbance. If an occupied burrow is found within the development footprint and cannot be avoided, a burrowing owl exclusion and mitigation plan shall be prepared and submitted to CDFW for approval prior to initiating project activities.

Please do not hesitate to contact Ryan Winkleman at (949) 533-0918 or ryan.winkleman@mbakerintl.com should you have any questions or require further information.

Sincerely,

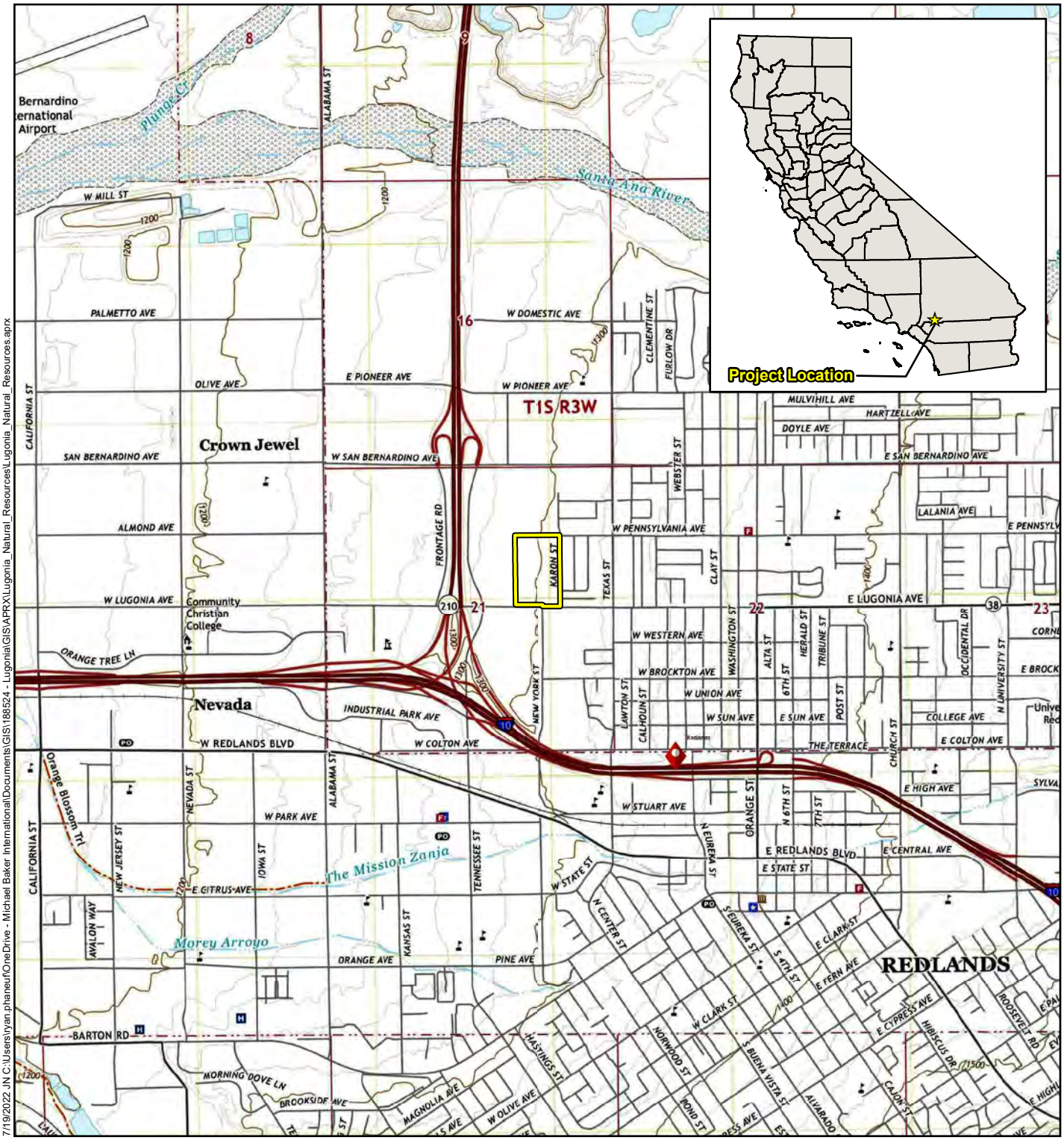
Ryan Winkleman
Senior Biologist

Attachments:

A. *Project Figures*
B. *Site Photographs*
C. *Plant and Wildlife Species Observed List*
D. *Potentially Occurring Special-Status Biological Resources*
E. *References*

Attachment A

Project Figures



Legend

Project Site

7/19/2022 JN C:\Users\ryan.phaneuf\OneDrive - Michael Baker International\Documents\GIS\188524 - Lugonia\GIS\APRX\Lugonia_Natural_Resources\Lugonia_Natural_Resources.aprx

Michael Baker INTERNATIONAL

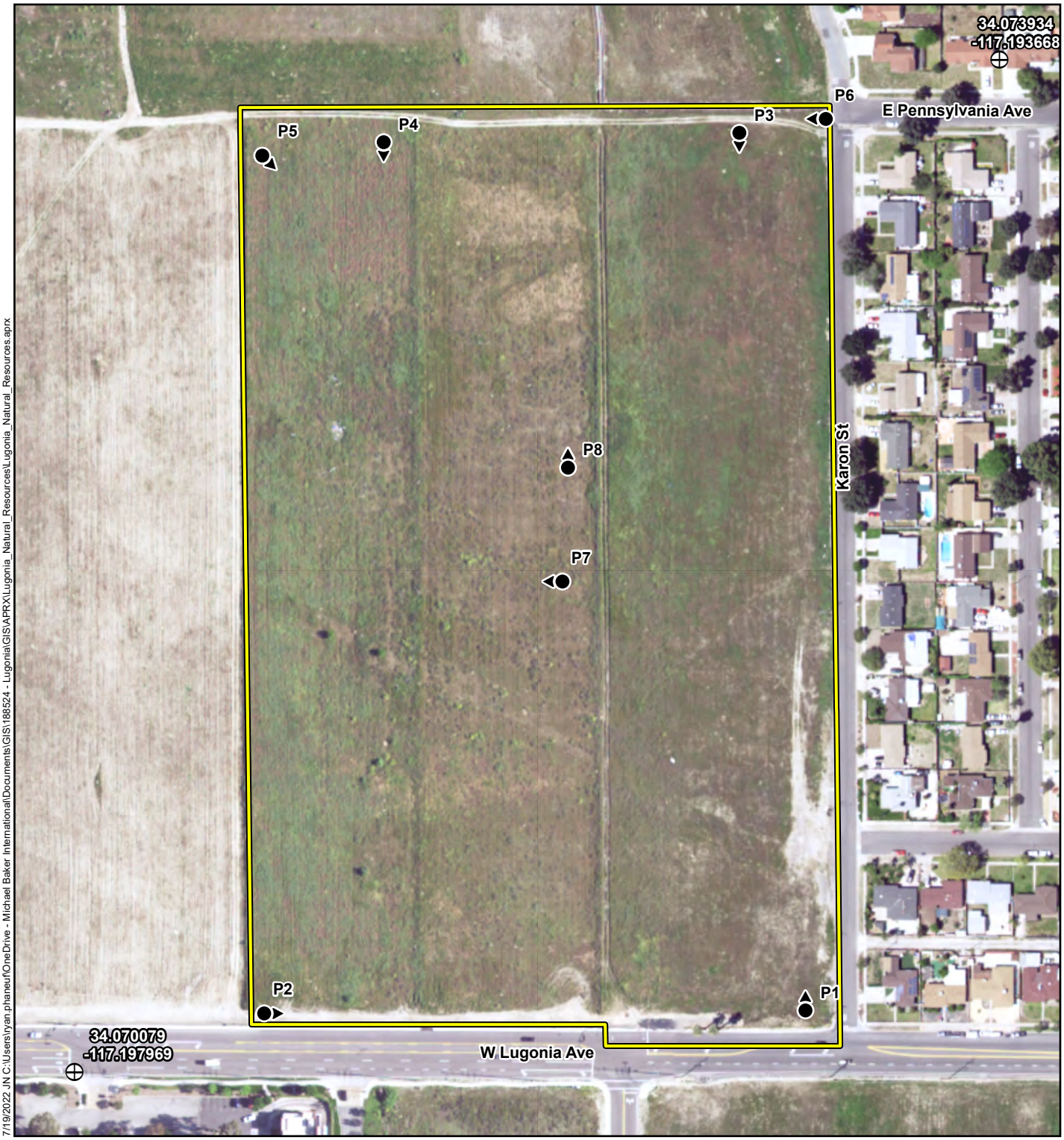
0 0.25 0.5 Miles

Source: USGS 7.5-Minute topographic quadrangle maps: *Redlands, California (2021)*

THE NEIGHBORHOODS AT LUGONIA VILLAGE
BIOLOGICAL RESOURCES ASSESSMENT

Regional and Project Vicinity

Figure 1



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Legend

- Project Site
- Reference Point
- Photograph Point and Direction

Michael Baker INTERNATIONAL

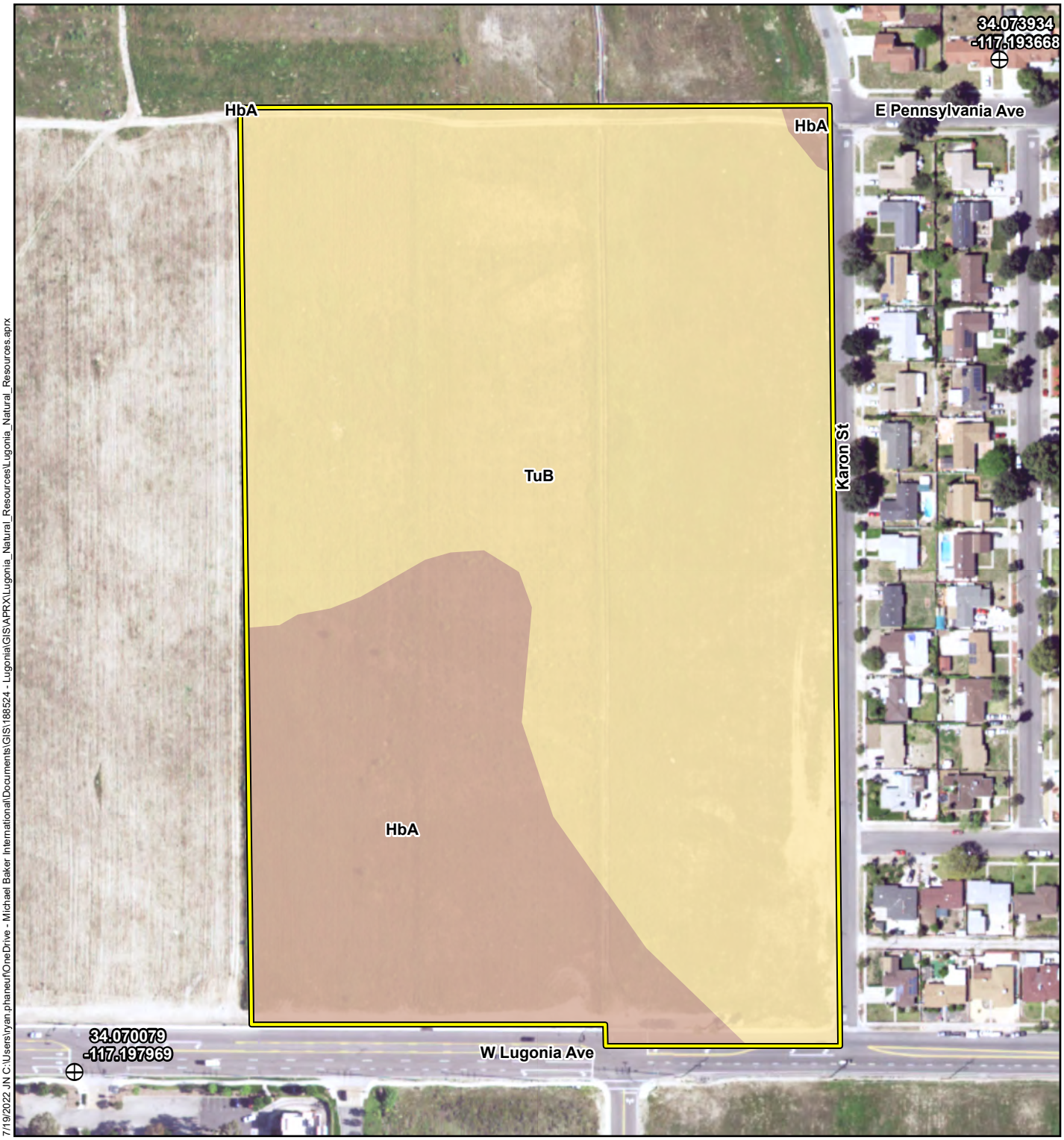
0 100 200 Feet

Source: NAIP (2020)

THE NEIGHBORHOODS AT LUGONIA VILLAGE
BIOLOGICAL RESOURCES ASSESSMENT

Project Site

Figure 2



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Legend

- Project Site
- Reference Point
- HbA — Hanford sandy loam, 0 to 2 percent slopes
- TuB — Tujunga loamy sand, 0 to 5 percent slopes

Michael Baker INTERNATIONAL

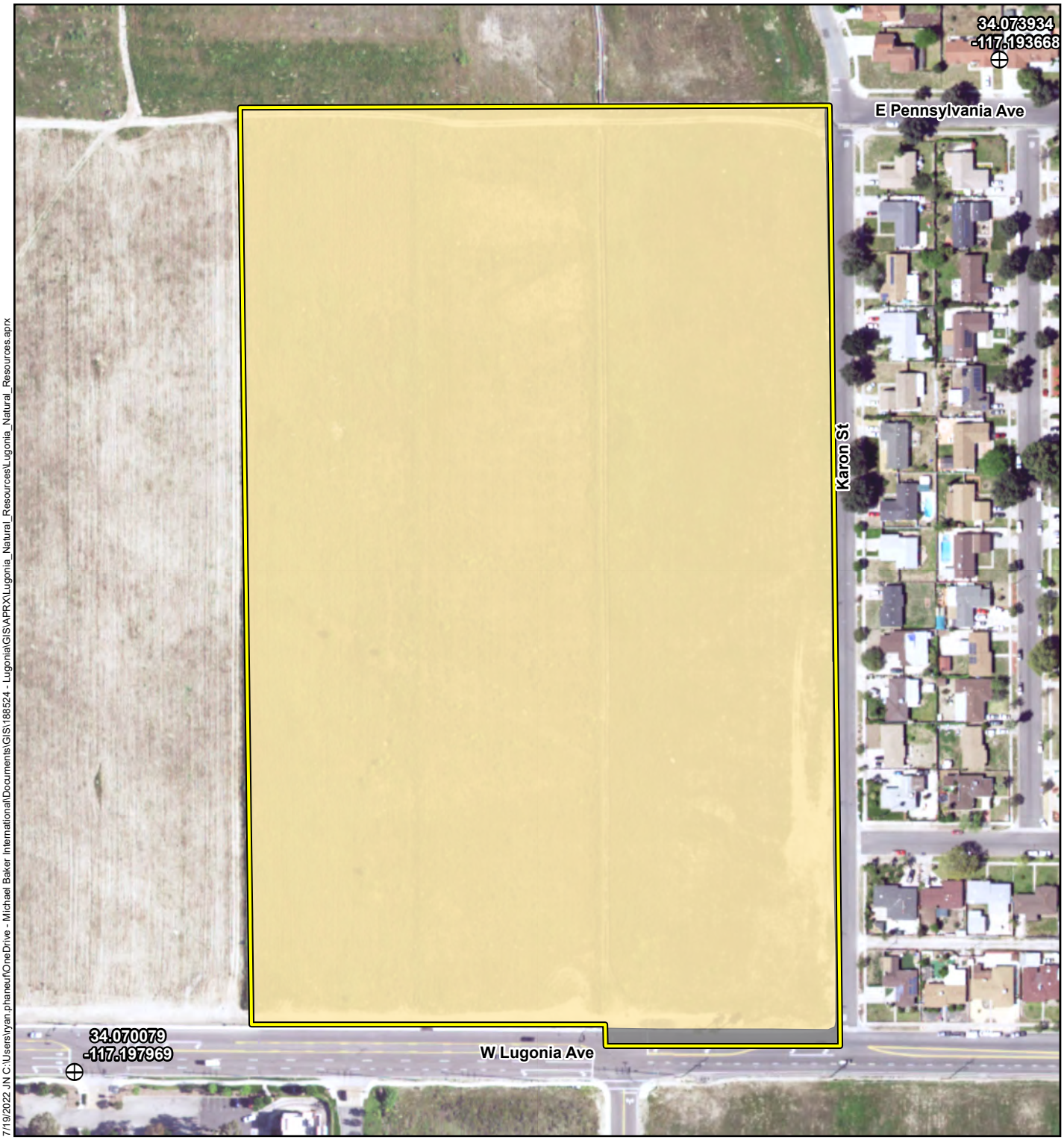
0 100 200 Feet

Source: NAIP (2020), USDA (2019)

THE NEIGHBORHOODS AT LUGONIA VILLAGE
BIOLOGICAL RESOURCES ASSESSMENT

USDA Soils

Figure 3



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Legend

- Project Site
- Reference Point
- Disturbed (24.08 acres)
- Developed (0.35 acre)

Michael Baker INTERNATIONAL

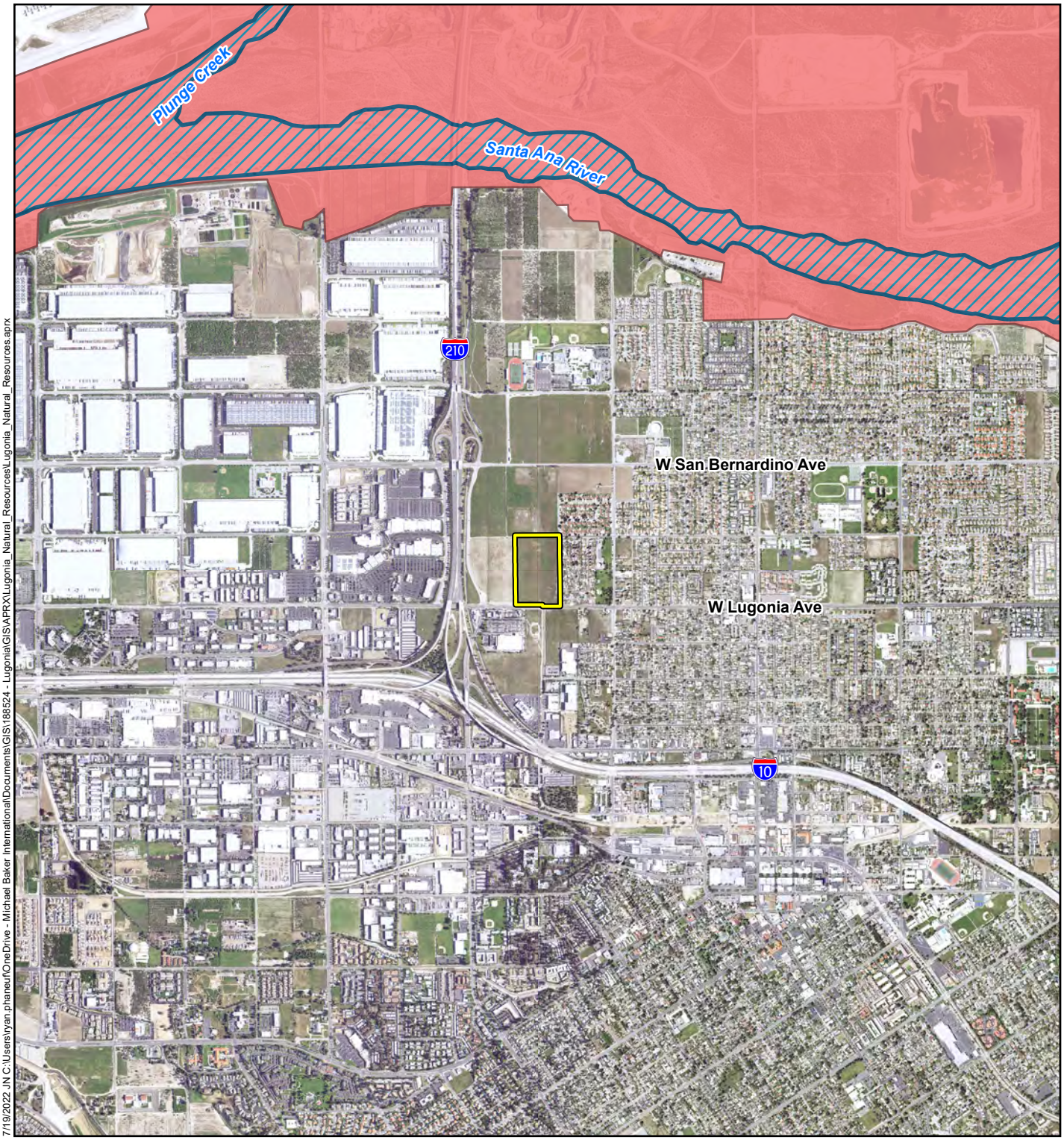
0 100 200 Feet

Source: NAIP (2020)

THE NEIGHBORHOODS AT LUGONIA VILLAGE
BIOLOGICAL RESOURCES ASSESSMENT

Vegetation Communities and Other Land Uses

Figure 4



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Legend

- Project Site
- Reference Point
- San Bernardino Merriam's Kangaroo Rat (*Dipodomys merriami parvus*)
- Santa Ana Sucker (*Catostomus santaanae*)

Michael Baker INTERNATIONAL

0 0.25 0.5 Miles

Source: NAIP (2020), USFWS (05/2022)

THE NEIGHBORHOODS AT LUGONIA VILLAGE
BIOLOGICAL RESOURCES ASSESSMENT

Critical Habitat

Figure 5

Attachment B

Site Photographs

Photograph 1: Standing in the southeast corner of the project site, facing north overlooking disturbed habitat.

Photograph 2: Standing in the southwest corner of the project site, facing east overlooking disturbed habitat.

Photograph 3: Standing in the northeast corner of the project site, facing south overlooking disturbed habitat.

Photograph 4: Standing in the northwestern corner of the project site, facing south overlooking disturbed habitat.

Photograph 5: Standing in the northwestern corner of the project site facing southeast overlooking disturbed habitat.

Photograph 6: Standing in the northeastern corner of the project site, facing west.

Photograph 7: Standing near the center of the project site facing west at disturbed habitat.

Photograph 8: Standing near the center of the project site, facing north at illegal garbage dumping.

Attachment C

Plant and Wildlife Species Observed List

Table C-1: Plant and Wildlife Species Observed List

*Scientific Name**	Common Name	Cal-IPC Rating**	Special-Status Rank***
Plants			
Ambrosia acanthicarpa	annual bursage		
Amsinckia intermedia	common fiddleneck		
*Avena sp.**	oats	Moderate	
*Bromus diandrus**	ripgut brome	Moderate	
*Bromus rubens**	red brome	High	
Citrus sinensis	orange tree		
Cryptantha sp.	popcornflower sp.		
*Erodium cicutarium**	Redstem filaree	Limited	
Eriogonum sp.	buckwheat sp.		
*Fraxinus uhdei**	Shamel ash		
Heterotheca grandiflora	telegraph weed		
*Hirschfeldia incana**	short podded mustard	Moderate	
*Hordeum murinum**	hare barley	Moderate	
*Melilotus indicus **	annual yellow sweetclover		
Sambucus nigra ssp. caerulea	blue elderberry		
*Schismus barbatus**	common Mediterranean grass	Limited	
*Sisymbrium altissimum**	tumble mustard		
*Sisymbrium irio**	London rocket	Moderate	
Birds			
Anthus rubescens	American pipit		
Ardea alba	great egret		
Buteo jamaicensis	red-tailed hawk		
Calypte anna	Anna's hummingbird		
Corvus corax	common raven		
Haemorhous mexicanus	house finch		
Icterus bullockii	Bullock's oriole		
Lanius ludovicianus	loggerhead shrike		SSC
Melozone crissalis	California towhee		
Mimus polyglottos	northern mockingbird		
*Passer domesticus**	house sparrow		
Passerculus sandwichensis	savannah sparrow		
Sayornis nigricans	black phoebe		
Sayornis saya	Say's Phoebe		
Spinus lawrencei	Lawrence's goldfinch		
Spinus psaltria	lesser goldfinch		
*Sturnus vulgaris**	European starling		
Tyrannus verticalis	western kingbird		
Tyrannus vociferans	Cassin's kingbird		

Table C-1: Plant and Wildlife Species Observed List

*Scientific Name**	Common Name	Cal-IPC Rating**	Special-Status Rank***
Mammals			
Mustela frenata	long-tailed weasel		
Otospermophilus beecheyi	California ground squirrel		
Reptiles			
Uta stansburiana elegans	western side-blotched lizard		

* **Non-native species**

** **California Invasive Plant Council (Cal-IPC) Ratings**

High — These species have severe ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal and establishment. Most are widely distributed ecologically.

Moderate — These species have substantial and apparent—but generally not severe—ecological impacts on physical processes, plant and animal communities, and vegetation structure. Their reproductive biology and other attributes are conducive to moderate to high rates of dispersal, though establishment is generally dependent upon ecological disturbance. Ecological amplitude and distribution may range from limited to widespread.

Limited — These species are invasive, but their ecological impacts are minor on a statewide level or there was not enough information to justify a higher score. Their reproductive biology and other attributes result in low to moderate rates of invasiveness. Ecological amplitude and distribution are generally limited, but these species may be locally persistent and problematic.

*** **Special-Status Rank**

California Department of Fish and Wildlife

SSC — Species of Special Concern – any species, subspecies, or distinct population of fish, amphibian, reptile, bird, or mammal native to California that currently satisfies one or more of the following criteria:

- is extirpated from California or, in the case of birds, in its primary seasonal or breeding role;
- is listed as Federally-, but not State-, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed.
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; or
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

Attachment D

Potentially Occurring Special-Status Biological Resources

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
SPECIAL-STATUS WILDLIFE SPECIES				
Accipiter cooperii Cooper's hawk	WL G5 S4	Yearlong resident of California. Generally, found in forested areas up to 3,000 feet above mean sea level (amsl) in elevation, especially near edges and rivers. Prefers hardwood stands and mature forests but can be found in urban and suburban areas where there are tall trees (25 to 50 feet high) for nesting. Prefers pines (*Pinus* spp.), oaks (*Quercus* spp.), Douglas firs (*Pseudotsuga* spp.), beeches (*Fagus* spp.), spruces (*Picea* spp.) for nesting. Common in open areas during nesting season.	No	**High (Foraging), Low (Nesting):** Suitable foraging habitat is present within the project site, but this species is unlikely to nest on-site or in the immediate vicinity.
Agelaius tricolor tricolored blackbird	ST SSC G2G3 S1S2	Range is limited to the coastal areas of the Pacific coast of North America, from Northern California to upper Baja California. Can be found in a wide variety of habitat including annual grasslands, wet and dry vernal pools and other seasonal wetlands, agricultural fields, cattle feedlots, and dairies. Occasionally forage in riparian scrub habitats along marsh borders. Basic habitat requirements for breeding include open accessible water, freshwater marsh dominated by cattails (*Typha* spp.), willows (*Salix* spp.), and bulrushes (*Schoenoplectus* spp.), and either flooded or thorny/spiny vegetation and suitable foraging space providing adequate insect prey.	No	**Not Expected:** Suitable nesting and foraging habitats consisting of annual grasslands, seasonal wetlands, freshwater marsh, and open accessible water are not present within the project site.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	WL G5T3 S3	Yearlong resident that is typically found between 3,000 and 6,000 feet amsl. Breed in sparsely vegetated scrubland on hillsides and canyons. Prefers coastal sage scrub dominated by California sagebrush (*Artemisia californica*), but they can also be found breeding in coastal bluff scrub, low-growing serpentine chaparral, and along the edges of tall chaparral habitats.	No	**Not Expected:** Suitable habitat consisting of coastal sage scrub and chaparral habitats are not present within the project site. Additionally, the project site is outside of know elevation ranges this species is normally found in.
Anniella stebbinsi southern California legless lizard	SSC G3 S3	Locally abundant specimens are found in coastal sand dunes and a variety of interior habitats, including sandy washes and alluvial fans. A large protected population persists in the remnant of the once extensive El Segundo Dunes at Los Angeles International Airport.	No	**Moderate:** Although suitable habitats consisting of coastal sand dunes, sandy wash and alluvial fans are not present within the project site, there is a known occurrence (Occurrence Number 120) northwest of the project site within the adjacent open land. Five were found by flipping artificial cover in 2014, and then again in 2016.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Antrozous pallidus pallid bat	SSC G5 S3	Locally common species locally common in the Great Basin, Mojave, and Sonoran deserts (specifically Sonoran life zone) and grasslands throughout the western U.S. Also occurs in shrublands, woodlands, and forests from sea level to 8,000 ft amsl. Prefers rocky outcrops, cliffs, and crevices for roosting with access to open habitats for foraging. May also roost in caves, mines, bridges, barns, porches, and bat boxes, and even on the ground under burlap sacks, stone piles, rags, baseboards, and rocks.	No	**Low (Foraging):** The project site provides marginal foraging habitat for this species. This species is not expected to roost within the project site due to the lack of rocky outcrops, cliffs, and crevices.
Arizona elegans occidentalis California glossy snake	SSC G5T2 S2	Inhabits arid scrub, rocky washes, grasslands, and chaparral habitats. Appears to prefer microhabitats of open areas and areas with soil loose enough for easy burrowing.	No	**Not Expected:** Suitable habitat consisting of scrub, rocky washes and chaparral habitats preferred by this species are not present within the project site. Additionally, the project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and/or compacted surface soils.
Artemisiospiza belli belli Bell's sage sparrow	WL G5T2T3 S3	This species has a wide, but sparse distribution in western Riverside County, specifically within the "Riverside lowlands, San Jacinto Foothills, Santa Ana Mountains, and Desert Transition Bioregions. Yearlong resident on the coastal side of southern California mountains. Breeds in coastal sage scrub and chaparral habitats from February to August. They require semi-open habitats with evenly spaced shrubs one to two meters high. Occurs in chaparral dominated by fairly dense stands of chamise (*Adenostoma fasciculatum*).	No	**Not Expected:** Suitable habitat consisting of evenly dispersed scrub preferred by this species is not present within the project site because the project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and/or compacted surface soils.
Aspidoscelis hyperythra orange-throated whiptail	WL G5 S2S3	Uncommon to fairly common over much of its range in Orange, Riverside, and San Diego counties. Also occurs in southwestern San Bernardino County near Colton. Semi-arid brushy areas typically with loose soil and rocks, including washes, streamsides, rocky hillsides, and coastal chaparral.	No	**Not Expected:** Suitable habitat consisting of dispersed scrub preferred by this species is not present within the project site because the project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and/or compacted surface soils. Additionally, there is no known occurrence within 5 miles of the project site.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Aspidoscelis tigris stejnegeri coastal whiptail	SSC G5T5 S3	This subspecies is found in coastal southern California, mostly west of the Peninsular Ranges and south of the Transverse Ranges, and north into Ventura County. Ranges south into Baja California. Found in a variety of ecosystems, primarily hot and dry open areas with sparse vegetation in chaparral, woodland, and riparian areas. Associated with rocky areas with little vegetation or sunny microhabitats within shrub or grassland associations.	No	**Not Expected:** Suitable habitat consisting of dispersed scrub preferred by this species is not present within the project site because the project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and/or compacted surface soils. Although there is a known occurrence within 3 mi of the project site, the population is effectively cut off from the project site due to the Santa Ana River.
Athene cunicularia burrowing owl	SSC G4 S3	Yearlong resident of California. Primarily a grassland species, but it persists and even thrives in some landscapes highly altered by human activity. Occurs in open, annual or perennial grasslands, deserts, and scrublands characterized by low-growing vegetation. The overriding characteristics of suitable habitat appear to be burrows for roosting and nesting and relatively short vegetation with only sparse shrubs and taller vegetation.	No	**Moderate (Foraging and Nesting):** The project site provides suitable foraging and nesting habitat for this species. In addition, this species was observed 2.25 miles northwest (occurrence 314) and 3.45 miles northwest (1784) of the project site (CDFW 2022a). Additionally, there are many reports of this species within and just outside of a 5-mile radius of the project site through eBird (eBird 2022).
Buteo swainsoni Swainson's hawk	ST G5 S3	Summer migrant in southern California. Typical habitat is open desert, grassland, or cropland containing scattered, large trees or small groves. Breeds in stands with few trees in juniper-sage flats, riparian areas, and in oak savannah in the Central Valley. Forages in adjacent grassland or suitable grain or alfalfa fields or livestock pastures.	No	**Low (Foraging):** Marginal foraging habitat is present within the project site.
Catostomus santaanae Santa Ana sucker	FT G1 S1	Occur in the watersheds draining the San Gabriel and San Bernardino Mountains of southern California. Streams that Santa Ana Sucker inhabit are generally perennial streams with water ranging in depth from a few inches to several feet and with currents ranging from slight to swift.	No	**Not Expected:** Suitable stream habitat is not present within the project site. In addition, the project site is not located within Federally designated Critical Habitat for this species.
Chaetodipus fallax fallax northwestern San Diego pocket mouse	SSC G5T3T4 S3S4	Found terrestrially in a wide variety of temperate habitats ranging from chaparral and grasslands to scrub forests and deserts. Open habitat on the Pacific slope from southwestern San Bernardino County to northwestern Baja California. Habitat types include coastal sage scrub, sage scrub/grassland ecotones, and chaparral communities. Major habitat requirement is the presence of low growing vegetation or rocky outcroppings, as well as sandy soil to dig burrows.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and/or compacted surface soils.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Charina umbratical southern rubber boa	ST G2G3 S2S3	Known from the San Bernardino and San Jacinto mtns; found in a variety of montane forest habitats, specifically in meadow & seep, riparian forest, riparian woodland, upper montane coniferous forest, and wetlands. Found in vicinity of streams or wet meadows; requires loose, moist soil for burrowing; seeks cover in rotting logs, rock outcrops, and under surface litter.	No	**Not Expected:** Suitable habitats consisting of riparian forest, montane coniferous forest, and wetlands preferred by this species is not within the project site. Additionally, the project site is outside of known occurrence ranges.
Coccyzus americanus occidentalis western yellow-billed cuckoo	FT SE G5T2T3 S1	Uncommon summer resident where its breeding distribution is restricted to isolated sites in the Sacramento, Armargosa, Kern, Santa Ana, and Colorado River valleys. The species requires large patches of multi-layered riparian forest, with cottonwoods and willows. The presence of standing or flowing surface water under the riparian canopy is also preferred. Mesquite (*Prosopis* spp.) groves may also be used, but usually only when cottonwood-willow habitat is unavailable.	No	**Not Expected:** Suitable, multi-layered riparian forest habitats preferred by this species for foraging and nesting are not present within the project site. Further, the project site is not located within Federally designated Critical Habitat for this species.
Coleonyx variegatus abbotti San Diego banded gecko	SSC G5T5 S1S2	Found in southwestern California just inland from the Pacific coast, from Ventura County south into northwestern and central Baja California. Prefers granite or rocky outcrops in coastal scrub and chaparral habitats.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Crotalus ruber red-diamond rattlesnake	SSC G4 S3	Found in southwestern California, from the Morongo Valley west to the coast and south along the peninsular ranges to mid Baja California. It can be found from the desert, through dense chaparral in the foothills (it avoids the mountains above around 4,000 feet amsl), to warm inland mesas and valleys, all the way to the cool ocean shore. It is most commonly associated with heavy brush with large rocks or boulders. Dense chaparral in the foothills, boulders associated coastal sage scrub, oak/pine woodlands, and desert slope scrub associations; however, chamise and red shank (*Adenostoma sparsifolium*) associations may offer better structural habitat for refuges and food resources for this species than other habitats.	No	**Not Expected:** Suitable habitat consisting of desert and dense chaparral preferred by this species is not present within the project site because the project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and/or compacted surface soils. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a). Additionally, the project site is outside of known occurrence ranges.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Danaus plexippus monarch butterfly	FC G4T2T3 S2S3	Winter roost sites extend along the coast from northern Mendocino to Baja California, Mexico. Roosts are located in wind-protected tree groves (eucalyptus, Monterey pine, cypress), with nectar and water sources nearby.	No	**Not Expected:** There are no known wintering roosts within or nearby the project site (Xerxes 2022).
Dipodomys merriami parvus San Bernardino kangaroo rat	FE SCE SSC G5T1 S1	Primarily found in Riversidian alluvial fan sage scrub and sandy loam soils, alluvial fans and flood plains, and along washes with nearby sage scrub. May occur at lower densities in Riversidian upland sage scrub, chaparral and grassland in uplands and tributaries in proximity to Riversidian alluvial fan sage scrub habitats. Tend to avoid rocky substrates and prefer sandy loam substrates for digging of shallow burrows.	No	**Not Expected.** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and/or compacted surface soils. Further, the project site is not located within Federally designated Critical Habitat for this species. Lastly, a habitat assessment conducted by a permitted biologist from Origin Biological in 2020 determined that no suitable habitat for this species occurs within the project site and as a result this species is not expected to occur (Origin Biological 2020).
Dipodomys stephensi Stephens' kangaroo rat	FE ST G2 S2	Occur in arid and semi-arid habitats of open grassland or sparse shrublands with less than 50% protective cover. Require soft, well-drained substrate for building burrows and are typically found in areas with sandy soil in areas with <30 percent slope.	No	**Not Expected.** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is not located within Federally designated Critical Habitat for this species. Lastly, a habitat assessment conducted by a permitted biologist from Origin Biological in 2020 determined that no suitable habitat for this species occurs within the project site and as a result this species is not expected to occur (Origin Biological 2020).
Elanus leucurus *white-tailed kite*	FP G5 S3S4	Yearlong resident along the coastal ranges and valleys of California. Occurs in low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Uses trees with dense canopies for cover. Important prey item is the California vole (Microtus californicus). Nests in tall (20 to 50 feet) coast live oaks (Quercus agrifolia).	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Empidonax traillii extimus southwestern willow flycatcher	FE SE G5T2 S1	Uncommon summer resident in southern California primarily found in lower elevation riparian habitats occurring along streams or in meadows. The structure of suitable breeding habitat typically consists of a dense mid-story and understory and can also include a dense canopy. Nest sites are generally located near surface water or saturated soils. The presence of surface water, swampy conditions, standing or flowing water under the riparian canopy are preferred.	No	**Not Expected:** Suitable dense riparian habitats with surface water are not present within or adjacent to the project site. Further, the project site is not located within Federally designated Critical Habitat for this species.
Eremophila alpestris actia California horned lark	WL G5T4Q S4	Yearlong resident of California. This subspecies is typically found in coastal regions. Breed in level or gently sloping shortgrass prairie, montane meadows, "bald" hills, open coastal plains, fallow grain fields, and alkali flats. Within southern California, California horned larks breed primarily in open fields, (short) grasslands, and rangelands. Nests on the open ground.	No	**Moderate (Foraging and Nesting):** The project site provides suitable foraging and nesting habitat for this species.
Eumops perotis californicus western mastiff bat	SSC G5T4 S3S4	Primarily a cliff-dwelling species, roost generally under exfoliating rock slabs. Roosts are generally high above the ground, usually allowing a clear vertical drop of at least 3 meters below the entrance for flight. In California, it is most frequently encountered in broad open areas. Its foraging habitat includes dry desert washes, flood plains, chaparral, oak woodland, open ponderosa pine forest, grassland, and agricultural areas.	No	**Low (Foraging):** The project site provides marginal foraging habitat for this species. This species is not expected to roost within the project site due to the lack of cliffs and buildings.
Euphydryas editha quino quino checkerspot butterfly	FE G5T1T2 S1S2	Occupies a variety of habitat types that support California plantain (*Plantago erecta*), the species primary larval host plant, including grasslands, coastal sage scrub, chamise chaparral, red shank chaparral, juniper woodland, and semi-desert scrub. Can also be found in desert canyons and washes at the lower edge of chaparral habitats.	No	**Not Expected:** California plantain was not observed within the project site. Further, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a) and the project site is not located within Federally designated Critical Habitat for this species.
Falco columbarius merlin	WL G5 S3S4	Winter resident of southern California. Nest in forested openings, edges, and along rivers across northern North America. Found in open forests, grasslands, and especially coastal areas with flocks of small songbirds or shorebirds. This species does not breed in California.	No	**Low (Foraging):** Marginal foraging habitat is present within the project site. However, this species does not nest in California.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Gila orcuttii arroyo chub	SSC G2 S2	Native to the Los Angeles, San Gabriel, San Luis Rey, Santa Ana, and Santa Margarita rivers and to Malibu and San Juan creeks. This species has been introduced and have successfully established populations in the Santa Ynez, Santa Maria, Cuyama and Mojave river systems as well as smaller coastal streams such as Arroyo Grande Creek and Chorro Creek in San Luis Obispo County. Warm streams of the Los Angeles Plain, which are typically muddy torrents during the winter, and clear quiet brooks in the summer, possibly drying up in places. They are found both in slow-moving and fast-moving sections, but generally deeper than 16 inches.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site.
Glaucomys oregonensis californicus San Bernardino flying squirrel	SSC G5T1T2 S1S2	Occurs in white fir (*Abies concolor*) and Jeffrey pine (*Pinus jeffreyi*) mixed conifer forests with black oak (*Quercus kelloggii*) components at higher elevations. Use cavities in large trees, snags, and logs for cover. Habitats are typically mature, dense conifer forest in close proximity to riparian areas.	No	**Not Expected:** The project site does not provide suitable mature, dense conifer forest habitat preferred by this species. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Haliaeetus leucocephalus bald eagle	SE FP G5 S3	Locally common yearlong resident of southern California. Typically prefer areas near large water bodies such as sea coasts, coastal estuaries and inland lakes and rivers, in many areas, these birds are found within two miles of a water source. Most populations, specifically those in northern regions, migrate to southern, milder climates annually. Generally, these birds nest in the canopy of tall, coniferous trees, surrounded by smaller trees. They have been reported nesting on the ground, on cliffs, on cellular phone towers, on electrical poles and in artificial nesting towers.	No	**Not Expected:** The project site does not provide suitable habitat preferred by this species. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Icteria virens yellow-breasted chat	SSC G5 S3	Summer resident of California. Primarily found in tall, dense, relatively wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Breeding habitat within southern California primarily consists of dense, wide riparian woodlands and thickets of willows, vine tangles, and dense brush with well-developed understories. Nesting areas are associated with streams, swampy ground, and the borders of small ponds. It winters south the Central America. Found at elevations ranging from 820 to 2,625 feet amsl.	No	**Not Expected:** Suitable riparian woodland habitats preferred by this species for foraging and nesting are not present within the project site.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Lanius ludovicianus loggerhead shrike	SSC G4 S4	Yearlong resident of California. Prefers open habitats with bare ground, scattered shrubs, and areas with low or sparse herbaceous cover including open-canopied valley foothill hardwood, riparian, pinyon-juniper desert riparian, creosote bush scrub, and Joshua tree woodland. Requires suitable perches including trees, posts, fences, utility lines, or other perches. Nests in branches up to 14 feet above the ground frequently in a shrub with thorns or with tangled branching habitats.	Yes	**Present:** This species was observed on-site. However, based on the habitat that is present and the status of this species in the region, the bird that was observed was likely a transient migrant or a lingering wintering bird.
Lasiurus xanthinus western yellow bat	SSC G4G5 S3	Uncommon in California, known only in Los Angeles and San Bernardino Counties. Occurs in valley foothill riparian, desert riparian, desert wash, and palm oasis habitats. Prefers to roost and feed in, and near, palm oases and riparian habitats. Commonly found in the southwestern U.S. roosting in the skirt of dead fronds in both native and non-native palm trees.	No	**Low (Foraging and Roosting):** The project site provides marginal foraging and roosting habitat (i.e., palm trees) for this species.
Laterallus jamaicensis coturniculus California black rail	ST FP G3G4T1 S1	Suitable habitat generally includes salt marshes, freshwater marshes, and wet meadows. Typical associated vegetation includes pickle weed (*Salicornia virginica*) in salt marshes and bulrushes in less saline habitats.	No	**Not Expected:** Suitable salt marsh, freshwater marsh, and wet meadow habitats preferred by this species for foraging and nesting are not present within the project site. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Leptonycteris yerbabuenae *lesser long-nosed bat*	SSC G3 S1	Requires caves and mines for roosting and access to healthy stands of saguaro cactus (Carnegiea gigantea) and paniculate agaves for foraging. The Sonoran Desert scrub vegetation community provides the early summer forage base, with bats found in southwestern Arizona. The semi-desert grassland and oak woodlands provide the late summer agave resources in the southeastern portion of Arizona.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site.
Neotoma lepida intermedia San Diego desert woodrat	SSC G5T3T4 S3S4	Occurs in coastal scrub communities between San Luis Obispo and San Diego Counties. Found in a variety of shrub and desert habitats, primarily associated with rock outcroppings, boulders, cacti, or areas of dense undergrowth. Woodrats often are associated with cholla cactus which they use for water and dens or boulders and boulder piles. The most common natural habitats for records are chaparral, coastal sage scrub (including RSS and Diegan coastal sage scrub) and grassland.	No	**Not Expected:** The project site lacks any of the rocky, shrubby habitat that this species and its middens are typically associated with.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Nyctinomops femorosaccus pocketed free-tailed bat	SSC G4 S3	Often found in pinyon-juniper woodlands, desert scrub, desert succulent shrub, desert riparian, desert wash, alkali desert scrub, Joshua tree woodland, and palm oasis habitats. Prefers rocky desert areas with high cliffs or rock outcrops, which are used as roosting sites. Considered a resident in San Diego County.	No	**Low (Foraging):** The project site provides marginal foraging habitat for this species, however, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a). This species is not expected to roost within the project site due to the lack of cliffs and rock outcrops.
***Oncorhynchus mykiss irideus* pop. 10** steelhead - southern California DPS	FE G5T1Q S1	Steelhead can survive in a wide range of temperature conditions. Species is found where dissolved oxygen concentration is at least 7 parts per million. In streams, deep low-velocity pools are important wintering habitats. Spawning habitat consists of gravel substrates free of excessive silt.	No	**Not Expected:** This species is possibly extirpated from the area (CDFW 2022a). Further, the project site is not located within Federally designated Critical Habitat for this species.
Onychomys torridus ramona southern grasshopper mouse	SSC G5T3 S3	Common in arid desert habitats of the Mojave and southern Central Valley of California. Known elevation range is generally below 3,000 feet amsl. Little is known about habitat requirements; however, it is commonly found in scrub habitats with friable soils for digging in desert areas. It is believed that alkali desert scrub and desert scrub habitats are preferred, with somewhat lower densities expected in other desert habitats, including succulent shrub, wash, and riparian areas. Also occurs in coastal scrub, mixed chaparral, sagebrush, low sage, and bitterbrush habitats.	No	**Not Expected:** Suitable scrub habitats with friable soils are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and/or compacted surface soils.
Perognathus alticola alticola white-eared pocket mouse	SSC G2TH SH	Occurs in Ponderosa and Jeffrey pine habitats; also in mixed chaparral and sagebrush habitats in the San Bernardino Mountains. Their burrows are constructed in loose soil.	No	**Not Expected:** Suitable habitats consisting of mixed chaparral and sagebrush preferred by this species is not within the project site. Additionally, the project site is outside of known occurrence ranges.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Perognathus longimembris brevinasus Los Angeles pocket mouse	SSC G5T1T2 S1S2	Occurs in lower elevation grasslands and coastal sage scrub communities in and around the Los Angeles Basin. Prefers open ground with fine sandy soils. May not dig extensive burrows, but instead will seek refuge under weeds and dead leaves instead.	No	**Not Expected:** Suitable grassland and coastal sage scrub habitats with fine sandy soils are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and/or compacted surface soils. Further, a habitat assessment conducted by a permitted biologist from Origin Biological in 2020 determined that no suitable habitat for this species occurs within the project site and as a result this species is not expected to occur (Origin Biological 2020).
Phrynosoma blainvillii coast horned lizard	SSC G3G4 S4	Occurs in a wide variety of vegetation types including coastal sage scrub, annual grassland, chaparral, oak woodland, riparian woodland and coniferous forest. Its elevational range extends up to 4,000 feet in the Sierra Nevada foothills and up to 6,000 feet in the mountains of southern California. In inland areas, this species is restricted to areas with pockets of open microhabitat, created by disturbance (e.g. fire, floods, unimproved roads, grazing lands, and fire breaks). The key elements of such habitats are loose, fine soils with a high sand fraction; an abundance of native ants or other insects; and open areas with limited overstory for basking and low, but relatively dense shrubs for refuge.	No	**Not Expected:** Although the project site consists of open grasslands, the project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, known occurrence (Occurrence 771) populations have been cut-off due to residential and commercial development (CDFW 2022a).
Polioptila californica californica coastal California gnatcatcher	FT SSC G4G5T2Q S2	Yearlong resident of sage scrub habitats that are dominated by California sagebrush. This species generally occurs below 750 feet amsl in coastal regions and below 1,500 feet amsl inland. Ranges from the Ventura County, south to San Diego County and northern Baja California and it is less common in sage scrub with a high percentage of tall shrubs. Prefers habitat with more low-growing vegetation.	No	**Not Expected:** There is no suitable habitat for this species on the project site or anywhere in the vicinity.
Rana draytonii California red-legged frog	FT SSC G2G3 S2S3	Breeding sites are in a variety of aquatic habitats including streams, deep pools, backwaters within streams and creeks, ponds, marshes, sag ponds, dune ponds, lagoons, and artificial impoundments (i.e., stock ponds). Breeding adults are often associated with deep (greater than 2 feet) still or slow-moving water and dense shrubby riparian or emergent vegetation.	No	**Not Expected:** Suitable habitats preferred by this species are not located within the project site. In addition, the project site is not located within Federally designated Critical Habitat for this species.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Rana muscosa southern mountain yellow-legged frog	FE SE WL G1 S1	The species inhabits ponds, lakes, and streams at moderate to high elevations. Usually associated with montane riparian habitats in lodgepole pine, ponderosa pine (*Pinus ponderosa*), sugar pine (*Pinus lambertiana*), white fir, whitebark pine (*Pinus albicaulis*), and wet meadow vegetation types. Occupied alpine lakes usually have margins that are grassy or muddy and inhabit sandy or rocky shores at lower elevations. Streams utilized vary from rocky, high gradient streams with numerous pools, rapids, and small waterfalls to those with marshy edges and sod banks. Species seems to prefer streams of low gradient and slow or moderate flow with very small, shallow streams being less frequently used.	No	**Not Expected:** There is no suitable habitat for this species within the project site, as this species only occurs in high-elevation montane streams. Additionally, the project site is not located within Federally designated Critical Habitat for this species.
Rhaphiomidas terminatus abdominalis Delhi Sands flower-loving fly	FE G1T1 S1	Restricted to areas that include Delhi fine sand, an aeolian (wind-deposited) soil types. The highest density of this species has been found in habitat that includes a variety of plants including California buckwheat (*Eriogonum fasciculatum*), California croton (Croton californicus), deerweed (*Acmispon glaber*), and telegraph weed (*Heterotheca grandiflora*).	No	**Not Expected:** Delhi fine sand does not occur within the project site. Additionally, the project site is not located within Federally designated Critical Habitat for this species.
***Rhinichthys osculus* ssp. 3** Santa Ana speckled dace	SSC G5T1 S1	Requires permanent flowing streams with summer water temperatures of 62 – 68 degrees Fahrenheit. Inhabits shallow cobble and gravel riffles and small streams that flow through steep, rocky canyons with chaparral covered walls.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site.
Salvadora hexalepis virgultea *coast patch-nosed snake*	SSC G5T4 S2S3	Occurs in brushy vegetation including coastal scrub and chaparral from the coast to the mountains. Takes refuge in existing small mammal burrows.	No	**Not Expected:** Suitable brushy habitats preferred by this species are not present within the project site.
Setophaga petechia yellow warbler	SSC G5 S3S4	Present in California from April through September. Nests in riparian areas dominated by willows, cottonwoods, California sycamores, or alders (*Alnus* spp.) or in mature chaparral. May also use oaks, conifers, and urban areas near stream courses.	No	**Not Expected:** Suitable foraging and nesting habitats preferred by this species are not present within the project site.
Spea hammondii western spadefoot	SSC G3 S3	Prefers open areas with sandy or gravelly soils, in a variety of habitats including mixed woodlands, grasslands, coastal sage scrub, chaparral, sandy washes, lowlands, river floodplains, alluvial fans, playas, alkali flats, foothills, and mountains. Rain pools which do not contain American bullfrogs (*Lithobates catesbeianus*), predatory fish, or crayfish are necessary for breeding. Estivates in upland habitats adjacent to potential breeding sites in burrows approximating 3 feet in depth.	No	**Not Expected:** Suitable habitat preferred by this species is not present within the project site.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Taxidea taxus American badger	SSC G5 S3	Occupies a wide variety of habitats including dry, open grassland, sagebrush, and woodland habitats. Badgers are generally associated with treeless regions, prairies, park lands and cold desert areas (Lindzey, 1982). Require dry, friable, often sandy soil to dig burrows for cover, food storage, and giving birth. Occasionally found in riparian zones and open chaparral with less than 50% plant cover.	No	**Low:** Although the project site contains suitable habitat for this species and an abundance of burrows already, this species is so rare in the region that the likelihood of it occurring in the middle of this otherwise urbanized area is low.
Thamnophis hammondii two-striped gartersnake	SSC G4 S3S4	Occurs in or near permanent fresh water, often along streams with rocky beds and riparian growth up to 7,000 feet amsl.	No	**Not Expected:** Suitable habitat preferred by this species is not present within the project site. In addition, there is no known occurrence within 5 miles of the project site (CDFW 2022a).
Vireo bellii pusillus least Bell's vireo	FE SE SSC G5T2 S2	Summer resident in southern California. Breeding habitat generally consists of dense, low, shrubby vegetation in riparian areas, and mesquite brushlands, often near water in arid regions. Early successional cottonwood-willow riparian groves are preferred for nesting. The most critical structural component of nesting habitat in California is a dense shrub layer that is 2 to 10 feet above ground. The presence of water, including ponded surface water or moist soil conditions, may also be a key component for nesting habitat.	No	**Not Expected:** Suitable foraging and nesting habitats preferred by this species are not present within the project site. Additionally, the project site is not located within Federally designated Critical Habitat for this species.
SPECIAL-STATUS PLANT SPECIES				
Abronia villosa* var. *aurita chaparral sand-verbena	1B.1 G5T2? S2	Annual herb. Occurs on sandy soils within chaparral, coastal scrub, and desert dunes. Grows in elevations ranging from 246 to 5,250 feet amsl. Blooming period is January through September.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Acanthoscyphus parishii var. parishii Parish's oxytheca	4.2 G4?T3T4 S2	Annual herb. Occurs on gravelly or sandy soils within chaparral and lower montane coniferous forest. Grows in elevations ranging from 4005 to 8530 feet amsl. Blooming period is June through September.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to past continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Allium howellii var. clokeyi Mt. Pinos onion	1B.3 G4T2 S2	Perennial bulbiferous herb. Occurs in Great Basin scrub, meadows and seeps (edges), and pinyon and juniper woodland habitats. Grows in elevations ranging from 4265 to 6070 feet amsl. Blooming period is April through June.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to past continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Ambrosia pumila San Diego ambrosia	FE 1B.1 G1 S1	Perennial rhizomatous herb. Occurs on sandy loam or clay soils (often in disturbed areas) and sometimes alkaline soils. Habitats include chaparral, coastal scrub, valley and foothill grassland, and vernal pools. Grows in elevation ranging from 66 to 1,362 feet amsl. Blooming period is April through October.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Arenaria paludicola marsh sandwort	FE SE 1B.1 G1 S1	Perennial stoloniferous herb. Found on sandy, openings within marshes and swamps (freshwater or brackish). Found at elevations ranging from 12 to 558 feet amsl. Blooming period is May through August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to past continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Artemisia palmeri San Diego sagewort	4.2 G3? S3?	Perennial deciduous herb. Found on sandy, mesic soils within chaparral, coastal scrub, riparian forest, riparian scrub, and riparian woodland habitats. Found at elevations ranging from 49 to 3,002 feet amsl. Blooming period is (February) May through September.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Asplenium vespertinum western spleenwort	4.2 G4 S4	Perennial rhizomatous herb. Found on rocky soils within chaparral, cismontane woodland, and coastal scrub habitat. Found at elevations ranging from 591 to 3,281 feet amsl. Blooming period is February through June.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Astragalus hornii* var. *hornii Horn's milk-vetch	1B.1 GUT1 S1	Annual herb. Found on lake margins, alkaline soils within meadows and seeps and playas. Found at elevations ranging from 197 to 2,789 feet amsl. Blooming period is May to October.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, this species is extirpated from the area (CDFW 2022a).
Berberis nevinii Nevin's barberry	FE SE 1B.1 G1 S1	Perennial evergreen shrub. Occurs on sandy or gravelly soils in chaparral, cismontane woodland, coastal scrub, and riparian scrub. Found at elevations ranging from 899 to 2,707 feet amsl. Blooming period is (February) March through June.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Bouteloua trifida three-awned grama	2B.3 G4G5 S3	Perennial herb. Occurs on carbonate, rocky soils within Mojavean desert scrub habitat. Grows in elevations ranging from 2,297 to 6,562 feet amsl. Blooming period is (April) May through September.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to past continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Brodiaea filifolia thread-leaved brodiaea	FT CE 1B.1 G2 S2	Perennial bulbiferous herb. Occurs in clays within chaparral, cismontane woodland, coastal scrub, Playas Valley and foothill grassland, and vernal pool habitats. Grows in elevations ranging from 80 to 3,675 feet amsl. Blooming period is March through June.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Calochortus catalinae Catalina mariposa lily	4.2 G3G4 S3S4	Perennial bulbiferous herb. Occurs in chaparral, cismontane woodland, coastal scrub, and valley and foothill grassland habitats. Grows in elevations ranging from 50 to 2,295 feet amsl. Blooming period is (February) March through June.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Calochortus palmeri var. palmeri Palmer's mariposa-lily	1B.2 G3T2 S2	Perennial bulbiferous herb. Occurs in mesic micro habitats within chaparral, lower montane coniferous forest, and meadows and seep habitats. Grows in elevations ranging from 2330 to 7840 feet amsl. Blooming period is April through July.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to past continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Calochortus plummerae Plummer's mariposa-lily	4.2 G4 S4	Perennial bulbiferous herb. Occurs on granitic and rocky soils within chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley/foothill grassland. Grows in elevations ranging from 328 through 5,577 feet amsl. Blooming period is May through July.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Calochortus simulans La Panza mariposa-lily	1B.3 G2 S2	Perennial bulbiferous herb. Occurs in granitic, sandy, or serpentinite soils and rocks within chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland habitats. Grows in elevations ranging from 1065 to 3775 feet amsl. Blooming period is April through June.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Carex comosa bristly sedge	2B.1 G5 S2	Perennial rhizomatous herb. Occurs in coastal prairies, marshes and swamps (lake margins), valley and foothill grassland habitats. Grows in elevations ranging from 0 to 2,051 feet amsl. Blooming period is May through September.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, this species is possibly extirpated from the area (CDFW 2022a).

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Castilleja lasiorhyncha San Bernardino Mountains owl's-clover	1B.2 G2? S2?	Annual herb (hemiparasitic). Occurs in mesic rocks within chaparral, meadows and seeps, pebble (pavement) plain, riparian woodland and upper montane coniferous forest habitats. Found at elevation ranging from 4265 to 7840 feet amsl. Blooming period is May through August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Centromadia pungens* ssp. *laevis smooth tarplant	1B.1 G3G4T2 S2	Annual herb. Occurs in alkaline soils within chenopod scrub, meadows and seeps, playas, riparian woodland, and valley/foothill grassland habitats. Grows in elevation from 0 through 2,100 feet amsl. Blooming period is April through September.	No	**Not Expected:** The project site provides marginal habitat for this species.
Chloropyron maritimum* ssp. *maritimum salt marsh bird's-beak	FE SE 1B.2 G4?T1 S1	Annual herb (hemiparasitic). Occurs on coastal dunes and marshes and swamps (coastal salt). Found at elevations ranging from 0 to 98 feet amsl. Blooming period is May through October (November).	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Chorizanthe leptotheca Peninsular spineflower	4.2 G3 S3	Annual herb. Occurs on alluvial, granitic soils within chaparral, coastal scrub, and lower montane coniferous forest habitats. Found at elevations ranging from 984 to 6,233 feet amsl. Blooming period is May through August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Chorizanthe parryi* var. *parryi Parry's spineflower	1B.1 G3G4T2 S2	Annual herb. Occurs on sandy and/or rocky soils in chaparral, coastal sage scrub, and sandy openings within alluvial washes and margins. Found at elevations ranging from 951 through 3,773 feet amsl. Blooming period is April through June.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Chorizanthe xanti* var. *leucotheca white-bracted spineflower	1B.2 G4T3 S3	Annual herb. Occurs on sandy or gravelly soils in coastal sage scrub (alluvial fans), Mojavean desert scrub, and pinyon and juniper woodland habitats. Found at elevations ranging from 984 through 3,937 feet amsl. Blooming period is April through June.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Convolvulus simulans small-flowered morning-glory	4.2 G4 S4	Annual herb. Found on wet clay and serpentine ridges within chaparral, coastal scrub, and valley and foothill grassland. Found at elevations ranging from 100 to 2820 feet amsl. Blooming period is March through July.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Cuscuta obtusiflora* var. *glandulosa Peruvian dodder	2B.2 G5T4? SH	Annual herb or vine (parasitic). Found in freshwater marshes and swamps. Found at elevations ranging from 49 to 919 feet amsl. Blooming period is July through October.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, this species is extirpated from the area (CDFW 2022a).
Deinandra paniculata paniculate tarplant	4.2 G4 S4	Annual herb. Occurs in coastal scrub, vernal pools, and valley/foothill grassland habitats. Found at elevations ranging from 82 to 3,084 feet amsl. Blooming period is April through November.	No	**Low:** The project site provides marginal habitat for this species, however, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Dodecahema leptoceras slender-horned spineflower	FE SE 1B.1 G1 S1	Annual herb. Occurs on flood deposited terraces and washes in chaparral, coastal scrub, and alluvial fan sage scrub habitats. Found at elevations ranging from 1,181 through 2,690 feet amsl. Blooming period is April through June.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Eriastrum densifolium* ssp. *sanctorum Santa Ana River woollystar	FE SE 1B.1 G4T1 S1	Perennial herb. Grows in sandy or gravelly soils within chaparral and coastal scrub (alluvial fan) habitats. Found at elevations ranging from 298 through 2,001 feet amsl. Blooming period is April through September.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Eriophyllum lanatum var. obovatum southern Sierra woolly sunflower	4.3 G5T4 S4	Perennial herb. Grows in loamy and sandy soils within lower montane coniferous forest and upper montane coniferous forest habitats. Found at elevations ranging from 3655 to 8205 feet amsl. Blooming period is June through July.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Fimbristylis thermalis hot springs fimbristylis	2B.2 G4 S1S2	Perennial rhizomatous herb. Grows in alkaline soils and near hot springs within meadows and seeps. Found at elevations ranging from 360 to 4395 feet amsl. Blooming period is July through September.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Frasera neglecta pine green-gentian	4.3 G4 S4	Perennial herb. Grows in lower montane coniferous forest, pinyon and juniper woodland, and upper montane coniferous forest habitats. Found at elevations ranging from 4595 to 8205 feet amsl. Blooming period is May through July.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Fritillaria pinetorum pine fritillary	4.3 G4 S4	Perennial bulbiferous herb. Grows in granitic and metamorphic rocks within chaparral, lower montane coniferous forest, pinyon and juniper woodland, subalpine coniferous forest, and upper montane coniferous forest. Found at elevations ranging from 5695 to 10825 feet amsl. Blooming period is May through July (September).	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Galium californicum* ssp. *primum Alvin Meadow bedstraw	1B.2 G5T2 S2	Perennial herb. Occurs on granitic, sandy soils within chaparral and lower montane coniferous forest habitats. Found at elevations ranging from 4,429 to 5,577 feet amsl. Blooming period is May through July.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to past continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Galium johnstonii Johnston's bedstraw	4.3 G4 S4	Perennial herb. Occurs in chaparral, lower montane coniferous forest, pinyon and juniper woodland, and riparian woodland habitats. Found at elevations ranging from 4005 to 7545 feet amsl. Blooming period is June through July.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Helianthus nuttallii* ssp. *parishii Los Angeles sunflower	1A G5TX SX	Perennial rhizomatous herb. Found in marshes and swamps (coastal salt and freshwater). Found at elevations ranging from 33 to 5,003 feet amsl. Blooming period is August through October.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, this species is possibly extirpated from the area (CDFW 2022a).
Heuchera caespitosa urn-flowered alumroot	4.3 G3 S3	Perennial rhizomatous herb. Grows on rocky areas within cismontane woodland, lower montane coniferous forest, riparian forest (montane), and upper montane coniferous forest habitats. Found at elevations ranging from 3790 to 8695 feet amsl. Blooming period is May through August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Heuchera parishii Parish's alumroot	1B.3 G3 S3	Perennial rhizomatous herb. Grows in carbonate (sometimes) soils and rocky areas within alpine boulder and rock field, lower montane coniferous forest, subalpine coniferous forest, and upper montane coniferous forest habitats. Found at elevations ranging from 4920 to 12470 feet amsl. Blooming period is June through August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Horkelia cuneata* var. *puberula mesa horkelia	1B.1 G4T1 S1	Perennial herb. Found in sandy or gravelly soils within chaparral, cismontane woodland, and coastal scrub habitats. Found at elevations ranging from 230 to 2,657 feet amsl. Blooming period is February through September.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Hulsea vestita ssp. parryi Parry's sunflower	4.3 G5T4 S4	Annual herb. Occurs on sandy and/or rocky soils in chaparral, coastal sage scrub, and sandy openings within alluvial washes and margins. Found at elevations ranging from 951 to 3,773 feet amsl. Blooming period is April through June.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Imperata brevifolia California satintail	2B.1 G4 S3	Perennial grass. Occurs in mesic areas, alkali seeps, and riparian habitats within coastal scrub, chaparral, riparian scrub, Mojavean scrub, and alkali meadows and seeps. Found at elevations ranging from 0 to 1,640 feet amsl. Blooming period is September through May.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Ivesia argyrocoma var. argyrocoma silver-haired ivesia	1B.2 G2T2 S2	Perennial herb. Occurs in meadows and seeps (alkaline), pebble (pavement) plain, and upper montane coniferous forest habitats. Found at elevations ranging from 4800 to 9710 feet amsl. Blooming period is June through August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to past continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Juglans californica southern California black walnut	4.2 G4 S4	Perennial deciduous tree. Found in chaparral, cismontane woodland, coastal scrub, and riparian woodland habitats. Found at elevations ranging from 164 to 2,953 feet amsl. Blooming period is March through August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to past continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Juncus duranii Duran's rush	4.3 G3 S3	Perennial rhizomatous herb. Habitats include lower and upper montane coniferous forests, meadows and seeps. Found at elevations ranging from 5,801 to 9,199 feet amsl. Blooming period is July through August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Lepidium virginicum* var. *robinsonii Robinson's pepper-grass	4.3 G5T3 S3	Annual herb. Dry soils on chaparral and coastal sage scrub. Found at elevations ranging from 66 through 4,396 feet amsl. Blooming period is January through July.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Lilium humboldtii ssp. ocellatum ocellated Humboldt lily	4.2 G4T4? S4?	Perennial bulbiferous herb. Found in openings within chaparral, cismontane woodland, coastal scrub, lower montane coniferous forest, and riparian woodland habitats. Found at elevations ranging from 98 to 5,906 feet amsl. Blooming period is March through July (August).	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Lycium parishii Parish's desert-thorn	2B.3 G4 S1	Perennial shrub. Grows in coastal scrub and Sonoran Desert scrub habitats. Found at elevations ranging from 443 to 3,281 feet amsl. Blooming period is March through April.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, this species is extirpated from the area (CDFW 2022a).
Malacothamnus parishii Parish's bush-mallow	1A GXQ SX	Perennial deciduous shrub. Found in chaparral and coastal scrub habitats. Found at elevations ranging from 1,000 to 1,493 feet amsl. Blooming period is June through July.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, this species is possibly extirpated from the area (CDFW 2022a).
Monardella macrantha ssp. hallii Hall's monardella	1B.3 G5T3 S3	perennial rhizomatous herb, Found in broadleafed upland forest, chaparral, cismontane woodland, lower montane coniferous forest, and valley and foothill grassland habitats. Found at elevation ranging from 2395 to 7200 feet amsl. Blooming period is June through October.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Monardella pringlei Pringle's monardella	1A GX SX	Annual herb. Found on sandy soils within coastal scrub habitats. Found at elevations ranging from 984 to 1,312 feet amsl. Blooming period is May through June.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, this species is possibly extirpated from the area (CDFW 2022a).

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Muhlenbergia californica California muhly	4.3 G4 S4	Perennial rhizomatous herb. Found in mesic areas, meadows, seeps, and streambanks within chaparral, coastal scrub, and lower montane coniferous forest. Found at elevations ranging from 328 to 6,562 feet amsl. Blooming period is June through September.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Muilla coronate crowned muilla	4.2 G3 S3	Perennial bulbiferous herb. Found in chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, pinyon and juniper woodland habitats. Found at elevations ranging from 2,200 to 6,430 feet amsl. Blooming period is March through April (May).	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Nasturtium gambelii Gambel's water cress	FE ST 1B.1 G1 S1	Perennial rhizomatous herb. Occurs in marshes and swamps (freshwater or brackish) habitats. Found at elevations ranging from 16 to 1,083 feet amsl. Blooming period is April through October.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Perideridia parishii ssp. parishii Parish's yampah	2B.2 G4T3T4 S2	Perennial herb. Occurs in lower montane coniferous forest, meadows and seeps, and upper montane coniferous forest habitats. Found at elevations ranging from 4805 to 9845 feet amsl. Blooming period is June through August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Phacelia mohavensis Mojave phacelia	4.3 G4Q S4	Annual herb. Occurs on sandy or gravelly soils within cismontane woodland, lower montane coniferous forest, meadows and seeps, pinyon and juniper woodland. Found at elevations ranging from 4,593 to 8,202 feet amsl. Blooming period is from April to August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Piperia leptopetala narrow-petaled rein orchid	4.3 G4 S4	Perennial herb. Occurs in cismontane woodland, lower montane coniferous forest, and upper montane coniferous forest habitats. Found at elevations ranging from 1245 to 7300 feet amsl. Blooming period is May through July.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Pseudorontium cyathiferum Deep Canyon snapdragon	2B.3 G4G5 S1	Annual herb. Grows on rocky soils within Sonoran Desert scrub habitat. Found at elevations ranging from 0 to 2,625 feet amsl. Blooming period is February through April.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Ribes divaricatum* var. *parishii Parish's gooseberry	1A G5TX SX	Shrub. Found in riparian woodland and other riparian habitats. Found at elevations ranging from 213 to 984 feet amsl. Blooming period is February through April.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Rupertia rigida *Parish' rupertia*	4.3 G4 S4	Perennial herb. Grows in chaparral, cismontane woodland, lower montane coniferous forest, meadows and seeps, pebble (Pavement) plain, valley and foothill grassland habitats. Found at elevations ranging from 2,295 to 8,205 feet. Blooming period is June through August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Schoenus nigricans black bog-rush	2B.2 G4 S2	Perennial herb. Grows in alkaline soils within marsh and swamp habitats. Found at elevations ranging from 490 to 6560 feet amsl. Blooming period is August through September.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Senecio aphanactis chaparral ragwort	2B.2 G3 S2	Annual herb. Grows on alkaline soils within chaparral, cismontane woodland, and coastal scrub habitats. Found at elevations ranging from 49 to 2,625 feet amsl. Blooming period is January through April (May).	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Senecio astephanus San Gabriel ragwort	4.3 G3 S3	Perennial herb. Grows on slopes and rocks within coastal bluff scrub and chaparral habitats. Found at elevations ranging from 1,310 to 4,920 feet amsl. Blooming period is May through July.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.
Sidalcea hickmanii ssp. parishii Parish's checkerbloom	1B.2 CR G3T1 S1	Perennial herb. Grows in chaparral, cismontane woodland, and lower montane coniferous forest habitats. Found at elevations ranging from 3,280 to 8,200 feet amsl. Blooming period is (May) June through August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Sidalcea malviflora ssp. dolosa Bear Valley checkerbloom	1B.2 G5T2 S2	Perennial herb. Grows in lower montane coniferous forest (meadows, seeps), meadows and seeps, riparian woodland, and upper montane coniferous forest (meadows, seeps) habitats. Found at elevations ranging from 4905 to 8810 feet. Blooming period is May through August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Sidalcea neomexicana salt spring checkerbloom	2B.2 G4 S2	Perennial herb. Found in alkaline and mesic soils within chaparral, coastal scrub, lower montane coniferous forest, Mojavean desert scrub, and playas. Found at elevations ranging from 49 through 5,020 feet amsl. Blooming period is March through June.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, closest species (Occurrence Number 6) is possibly extirpated from the area (CDFW 2022a).
Sidotheca caryophylloides chickweed oxytheca	4.3 G4 S4	Annual herb. Grows on sandy soils within lower montane coniferous forest. Found at elevations ranging from 3,655 to 8,530 feet amsl. Blooming period is from July to September.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Sphenopholis obtusata prairie wedge grass	2B.2 G5 S2	Perennial herb. Occurs in cismontane woodland and meadows and seeps within mesic soils. Found at elevations ranging from 984 to 6,562 feet amsl. Blooming period is April through July.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
Streptanthus bernardinus Laguna Mountains jewelflower	4.3 G3G4 S3S4	Perennial herb. Occurs in chaparral and lower montane coniferous forest habitat. Found at elevations ranging from 2,198 to 8,202 feet amsl. Blooming period is May through August.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Streptanthus campestris southern jewelflower	1B.3 G3 S3	Perennial herb. Occurs in open, rocky areas within chaparral, lower montane coniferous forest, and pinyon and juniper woodland. Found at elevations ranging from 1985 to 8500 feet amsl. Blooming period is from May to July.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. Further, the project site is outside of known elevation ranges for this species.
Symphyotrichum defoliatum San Bernardino aster	1B.2 G2 S2	Perennial rhizomatous herb. Occurs near ditches, streams, and springs within cismontane woodland, coastal scrub, lower montane coniferous forest, meadows, seeps, marshes, and valley/foothill grassland. Grows in elevations ranging from 0 through 6,700 feet amsl. Blooming period is July through November.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).
Thelypteris puberula var. sonorensis Sonoran maiden fern	2B.2 G5T3 S2	Fern (rhizomatous). Found in meadows and seeps along streams and other seepage areas. Found at elevations ranging from 164 to 2,001 feet amsl. Blooming period is from January to September.	No	**Not Expected:** Suitable habitats preferred by this species are not present within the project site. The project site primarily consists of disturbed habitat due to continual weed abatement activities resulting in heavily disturbed and compacted surface soils. In addition, there are no occurrence records for this species within 5.0 miles of the project site (CDFW 2022a).

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
SPECIAL-STATUS VEGETATION COMMUNITIES				
CNDDB/Holland (1986) Canyon Live Oak Ravine Forest **MCV (1995)** Canyon Live Oak Series **NVCS (2009)** Quercus chrysolepis Forest Alliance	G3 S3.3	Found at elevations ranging from 1,476 to 6,562 feet amsl on stream benches and terraces in canyon bottoms near streams and upland slopes on steep, shallow, rocky, infertile soils. Gold cup live oak (Quercus chrysolepis) is a dominant or co-dominant in the tree canopy with white fir, bigleaf maple (Acer macrophyllum), madrono (Arbutus menziesii), California incense-cedar (Calocedrus decurrens), tanoak (Notholithocarpus densiflorus), Coulter pine (Pinus coulteri), sugar pine, single leaf pinyon pine (Pinus monophylla), yellow pine, bigcone spruce (Pseudotsuga macrocarpa), Douglas fir, Oregon oak (Quercus garryana var. garryana), California black oak (Quercus kelloggii), interior live oak (Quercus wislizeni), and California bay. Trees are less than 100 feet tall; canopy is intermittent to continuous, may be one or two tiered. Shrub layer is sparse to intermittent. Herbaceous layer is sparse.	No	**Absent:** This vegetation community was not observed within the project site.
CNDDB/Holland (1986) Riversidian Alluvial Fan Sage Scrub **MCV (1995)** Scalebroom Series **NVCS (2009)** *Lepidospartum squamatum* intermittently flooded Shrubland Alliance	G3 S3	Found at elevations ranging from 164 to 4,922 feet amsl on intermittently or rarely flooded, low-gradient alluvial deposits along streams, washes, and fans. Scalebroom (*Lepidospartum squamatum*) is dominant, co-dominant, or conspicuous in the shrub canopy with burrobrush (*Ambrosia salsola*), California sagebrush, mule fat (*Baccharis salicifolia*), bladderpod (*Cleome isomeris*), California cholla (*Cylindropuntia californica*), brittlebush (*Encelia farinosa*), thick leaved yerba santa (*Eriodictyon crassifolium*), hairy yerba santa (*Eriodictyon trichocalyx*), California buckwheat, chaparral yucca (*Hesperoyucca whipplei*), deerweed, laurel sumac (*Malosma laurina*), prickly-pear cactus (*Opuntia littoralis*), lemonade berry (*Rhus integrifolia*), sugar bush (*Rhus ovata*), skunkbrush (*Rhus aromatica*), and poison oak (*Toxicodendron diversilobum*). Emergent trees or tall shrubs may be present at low cover, including mountain mahogany (*Cercocarpus betuloides*), southern California black walnut, California juniper (*Juniperus californica*), California sycamore, Fremont cottonwood, or black elderberry (*Sambucus nigra*). Shrubs are less than 7 feet tall; canopy is open to continuous, and two tiered. Herbaceous is layer variable and may be grassy.	No	**Absent:** This vegetation community was not observed within the project site.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
CNDDB/Holland (1986) Southern Coast Live Oak Riparian Forest **MCV (1995)** Coast Live Oak Series **NVCS (2009)** *Quercus agrifolia* Woodland Alliance	G5 S4	Found at elevations ranging from sea level to 3,937 feet amsl in alluvial terraces, canyon bottoms, stream banks, slopes, and flats, Soils are deep, sandy or loamy with high organic matter. Coast live oak is a dominant or co-dominant in the tree canopy with bigleaf maple (*Acer macrophyllum*), box elder (*Acer negundo*), madrono (*Arbutus menziesii*), southern California black walnut, California sycamore, Fremont cottonwood, blue oak (*Quercus douglasii*), Engelmann oak (*Quercus engelmannii*), California black oak, valley oak (*Quercus lobata*), arroyo willow (*Salix lasiolepis*), and California bay (*Umbellularia californica*). Trees are less than 98 feet tall; canopy is open to continuous. Shrub layer is sparse to intermittent. Herbaceous layer is sparse or grassy.	No	**Absent:** This vegetation community was not observed within the project site.
CNDDB/Holland (1986) Southern Cottonwood Willow Riparian Forest **MCV (1995)** Fremont Cottonwood Series **NVCS (2009)** *Populus fremontii* Forest Alliance	G4 S3.2	Found at elevations ranging from sea level to 7,874 feet amsl on floodplains, along low-gradient rivers, perennial or seasonally intermittent streams, springs, in lower canyons in desert mountains, in alluvial fans, and in valleys with a dependable subsurface water supply that varies considerably during the year. Fremont cottonwood is a dominant or co-dominant in the tree canopy with box elder, desert baccharis (*Baccharis sergiloides*), Oregon ash (*Fraxinus latifolia*), northern California black walnut (*Juglans hindsii*), California sycamore, coast live oak, narrowleaf willow (*Salix exigua*), Goodding's willow (*Salix goodingii*), polished willow (*Salix laevigata*), arroyo willow, pacific willow (*Salix lasiandra* ssp. *lasiandra*), and yellow willow (*Salix lutea*). Trees and less than 25 meters tall; canopy is continuous to open. Shrub layer is intermittent to open. Herbaceous layer is variable.	No	**Absent:** This vegetation community was not observed within the project site.
CNDDB/Holland (1986) Southern Mixed Riparian Forest **MCV (1995)** N/A **NVCS (2009)** N/A	N/A N/A	Similar to willow riparian forests and woodlands in species occurrences. Found in and along margins of an intermittent and perennial streams. Generally, no single species dominates the canopy and species composition is dependent on elevation, aspect, hydrology, and channel type. Species that are usually present in the canopy include California black walnut, willow, California buckeye, Fremont cottonwood, and bigleaf maple.	No	**Absent:** This vegetation community was not observed within the project site.

Table D-1: Potentially Occurring Special-Status Biological Resources

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
CNDDB/Holland (1986) Southern Riparian Scrub **MCV (1995)** N/A **NVCS (2009)** N/A	N/A N/A	Riparian zones dominated by small trees or shrubs, lacking taller riparian trees.	No	**Absent:** This vegetation community was not observed within the project site.
CNDDB/Holland (1986) Southern Sycamore Alder Riparian Woodland **MCV (1995)** California Sycamore Series **NVCS (2009)** *Platanus racemosa* Woodland Alliance	G3 S3	Found at elevations ranging from sea level to 7,874 feet amsl in gullies, intermittent streams, springs, seeps, stream banks, and terraces adjacent to floodplains that are subject to high-intensity flooding. Soils are rocky or cobbly alluvium with permanent moisture at depth. California sycamore is a dominant or co-dominant in the tree canopy with white alder (*Alnus rhombifolia*), southern California black walnut, Fremont cottonwood, coast live oak, valley oak, narrowleaf willow, Gooding's willow, polished willow, arroyo willow, yellow willow, Peruvian pepper tree (*Schinus molle*), and California bay.	No	**Absent:** This vegetation community was not observed within the project site.
CNDDB/Holland (1986) Southern Willow Scrub **MCV (1995)** N/A **NVCS (2009)** N/A	G3 S2.1	Dense, broadleaved, winter-deciduous riparian thickets dominated by several willow species, with scattered emergent Fremont's cottonwood and California sycamore. Most stands are too dense to allow much understory development. Loose, sandy or fine gravelly alluvium deposited near stream channels during flood flows. This early seral type required repeated flooding to prevent succession to Southern Cottonwood-Sycamore Riparian Forest.	No	**Absent:** This vegetation community was not observed within the project site.

* **U.S. Fish and Wildlife Service (USFWS)**

FE Endangered – any species which is in danger of extinction throughout all or a significant portion of its range.

FT Threatened – any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range.

FC Candidate – any species which has been designated as a candidate eligible for considering to be listed under the Federal Endangered Species Act.

California Department of Fish and Wildlife (CDFW)

SE Endangered – any native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, or disease.

ST Threatened – any native species or subspecies of bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of the special protection and management efforts required under the California Endangered Species Act.

SCE State Candidate for listing as Endangered - The classification provided to a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of endangered species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of endangered species.

FP Fully Protected – any native species or subspecies of bird, mammal, fish, amphibian, or reptile that were determined by the State of California to be rare or face possible extinction.

SSC Species of Special Concern – any species, subspecies, or distinct population of fish, amphibian, reptile, bird, or mammal

native to California that currently satisfies one or more of the following criteria:

- is extirpated from California or, in the case of birds, in its primary seasonal or breeding role;
- is listed as Federally-, but not State-, threatened or endangered; meets the State definition of threatened or endangered but has not formally been listed.
- is experiencing, or formerly experienced, serious (noncyclical) population declines or range retractions (not reversed) that, if continued or resumed, could qualify it for State threatened or endangered status; or
- has naturally small populations exhibiting high susceptibility to risk from any factor(s), that if realized, could lead to declines that would qualify it for State threatened or endangered status.

WL Watch List - taxa that were previously designated as "Species of Special Concern" but no longer merit that status, or which do not yet meet SSC criteria, but for which there is concern and a need for additional information to clarify status.

CR Rare - a native plant that is designated as "rare" under the California Fish and Game Code.

California Native Plant Society (CNPS) California Rare Plant Rank

1A Presumed extirpated in California and either rare or extinct elsewhere.

1B Plants rare, threatened, or endangered in California and elsewhere.

2B Plants rare, threatened, or endangered in California but more common elsewhere.

3 Plants about which more information is needed – Review List.

4 Plants of limited distribution – Watch List.

Threat Ranks

.1 Seriously threatened in California (over 80% of occurrences threatened/high degree any immediacy of threat).

.2 Moderately threatened in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat).

.3 Not very threatened in California (less than 20 percent of occurrences threatened/low degree and immediacy of threat or no current threats known).

NatureServe Conservation Status Rank

The Global Rank (G#) reflects the overall condition and imperilment of a species throughout its global range. The Infraspecific Taxon Rank (T#) reflects the global situation of just the subspecies or variety. The State Rank (S#) reflects the condition and imperilment of an element throughout its range within California. (G#Q) reflects that the element is very rare but there are taxonomic questions associated with it; the calculated G rank is qualified by adding a Q after the G#). Adding a ? to a rank expresses uncertainty about the rank.

G1/T1 Critically Imperiled – At very high risk of extinction due to extreme rarity (often 5 or fewer populations), very steep declines, or other factors.

G2/T2 Imperiled— At high risk of extinction due to very restricted range, very few populations (often 20 or fewer), steep declines, or other factors.

G3/T3 Vulnerable— At moderate risk of extinction due to a restricted range, relatively few populations (often 80 or fewer), recent and widespread declines, or other factors.

G4/T4 Apparently Secure— Uncommon but not rare; some cause for long-term concern due to declines or other factors.

G5/T5 Secure – Common; widespread and abundant.

S1 Critically Imperiled – Critically imperiled in the state because of extreme rarity (often 5 or fewer occurrences) or because of some 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 nation or 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.

S4 Apparently Secure – Uncommon but not rare; some cause for long-term concern due to declines or other factors.

Attachment E

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