Michael Baker
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January 21, 2025 JN 195377

NorthPoint Development
Attn: *Benjamin Mitton*
3315 North Oak Trafficway
Kansas City, MO 64116

SUBJECT: Draft Biological Resources Assessment for the SPR 24-010 Project– City of Lancaster, County of Los Angeles, California

Dear Mr. Mitton:

Michael Baker International (Michael Baker) has prepared this report to document the results of a biological resources assessment for the proposed SPR 24-010 Project (project or project site) located in the City of Lancaster, County of Los Angeles, California. Michael Baker conducted a 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 during reviews of the California Department of Fish and Wildlife's (CDFW) California Natural Diversity Database (CNDDB) (CDFW 2024a), the California Native Plant Society's (CNPS) Inventory of Rare and Endangered Plants of California (CIRP; CNPS 2024), the U.S. Fish and Wildlife Service's (USFWS) Information for Planning and Consultation project planning tool (IPaC; USFWS 2024a), and other databases as potentially occurring in the vicinity of the project site. This report has been prepared to support environmental review of the project in accordance with the California Environmental Quality Act (CEQA).

1. Project Location

The project site is situated approximately 0.25-mile west of State Route 14 (SR-14), at the southwest corner of West Avenue F 8 and 25th Street West in the City of Lancaster, County of Los Angeles, California (refer to Figure 1, *Regional and Project Vicinity* in Attachment A). The project site is depicted in Section 32 of Township 8 North, Range 12 West, on the U.S. Geological Survey's (USGS) *Lancaster West, California* 7.5-minute quadrangle. Specifically, the project site totals approximately 30.0 acres and encompasses Assessor's Parcel Numbers (APN) 3114-010-041 and 3114-010-0524 (refer to Figure 2, *Project Site*, Attachment A).

[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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2. Proposed Project

The proposed project involves two development potentials: 1) a 510,000-square foot high-cube distribution warehouse and associated ancillary site improvements and 2) a trailer stall lot to support the planned industrial development to the south and west of the project site.

3. Methodology

Literature Review

Michael Baker conducted thorough literature reviews and records searches 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 *Lancaster West, Lancaster East, Palmdale, Ritter Ridge, Sleepy Valley, Del Sur, Little Buttes, Rosamond Lake,* and *Rosamond, California* 7.5-minute quadrangles (nine-quad search) were determined through a query of the CNDDB (CDFW 2024a) and CIRP (CNPS 2024a), and for the project region through a review of IPaC (USFWS 2024a).

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 2024b), *Special Vascular Plants, Bryophytes, and Lichens List* (CDFW 2024c), *State and Federally Listed Endangered and Threatened Animals of California* (CDFW 2024d), and *State and Federally Listed Endangered, Threatened, and Rare Plants of California* (CDFW 2024e). 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 2024b). 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 2024)
- Google Earth Pro Historical Aerial Imagery from 1985 to 2020 (Google Inc. 2024)
- Species Accounts provided by Birds of the World (Billerman et. al 2020)
- Cornell Lab of Ornithology's eBird Database (eBird 2024)
- *Custom Soil Resource Report for Antelope Valley Area, California* (U.S. Department of Agriculture [USDA] 2024)
- National Wetlands Inventory Mapper (USFWS 2024c)

Additionally, Michael Baker biologists conducted various field surveys including a general survey (Michael Baker 2023a), focused rare plant surveys (Michael Baker 2023b), and focused burrowing owl surveys

(Michael Baker 2023c) in 2023 on adjacent parcels to the south and west of the subject parcels. These reports are cited throughout this report. Michael Baker conducted a biological field survey/habitat assessment of the project site in 2024, as described below.

Biological Field Survey/Habitat Assessment

Michael Baker biologists Anna Jullie and John Parent conducted a biological field survey/habitat assessment on August 8, 2024, 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 and encountered no limitations or access restrictions. 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)
August 8, 2024	0800 / 0900	Anna Jullie, John Parent	86 / 94	5 / 9

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) 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 uses the 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, wetlands) 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 the *Jepson Manual: Vascular Plants of California, Second Edition* (Baldwin et al. 2012) 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).

4. Existing Site Conditions

The project site is relatively flat with an approximate elevation of 2,312 to 2,316 feet above mean sea level (amsl). According to the *Custom Soil Resource Report for Antelope Valley Area, California, Southwestern Part* (USDA 2024), the entire project site is underlain by Pond-Oban complex (Px) soils (refer to Figure 3, *USDA Soils*, Attachment A). This soil complex is very deep, moderately well drained, and in places contains slight to moderate amounts of soluble salts or alkali. Based on a review of historic aerial imagery (Google, Inc. 2024) and results from the field survey, the project site has remained undisturbed with native vegetative cover since at least 1985. Surface soils within the project site are generally undisturbed, with some evidence of vehicular disturbance along the western and northern site perimeter.

The project site is immediately surrounded by undeveloped desert scrub habitat, with SR-14 located 0.25 mile to the east, the General William A. Fox Airfield (Airfield) approximately 1.0 mile to the west, and the outskirts of Lancaster at West Avenue H, approximately 1.3 miles to the south. Refer to Attachment B for representative photographs of the project site taken during the field survey.

5. Vegetation Communities and Land Cover Types

One (1) vegetation community, classified as disturbed shadscale scrub, and one (1) land cover type, classified as disturbed habitat, were observed and mapped within the approximate 30-acre project site (refer to Figure 4, *Vegetation Communities and Other Land Uses*, Attachment A).

Disturbed Shadscale Scrub

Of the project site's 30 acres, 26.56 acres consist of disturbed *Atriplex confertifolia* Shrubland Alliance (*Atriplex confertifolia – Atriplex polycarpa* Association). This native vegetation community is dominated by shadscale (*Atriplex confertifolia*), with allscale saltbush (*Atriplex polycarpa*), and other native desert scrub species present, in some instances occurring on hummocks of soil. Non-native herbaceous species including Spanish brome (*Bromus madritensis*), coastal heron's bill (*Erodium cicularium*), and tumble mustard (*Sismbrium altissimum*) dominated the understory, contributing to the disturbed nature of this vegetation community. In some areas, evidence of the alkali nature of the Pond-Oban complex soils underlying the project site was apparent by the presence of nearly white surface soils. No trees, including western Joshua tree (*Yucca brevifolia*) occur within the project site. A list of plant species observed within the project site is included in Table C-1 in Attachment C.

Disturbed

Disturbed areas comprise the remaining 3.43 acres of the project site and consist of areas that have been disturbed or physically altered to a degree that natural vegetation communities are no longer supported and opportunistic non-native species may become established. A disturbed area occurs in the northeast corner of the project site and consists primarily of non-native and highly invasive tamarisk and dirt roads that are generally free of vegetative cover.

6. Wildlife

Natural vegetation communities such as the desert scrub community found on-site, provide wildlife foraging habitat, nesting/denning sites, and shelter from adverse weather or predation. The occurrence of wildlife within or across the project site is, however, reduced by human disturbances associated with paved and unpaved roadways, industrial development, and the Airfield occurring in the area surrounding the project site. Further, vegetative cover across the site is generally sparse, further reducing the site's suitability to provide wildlife habitat.

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. Refer to Table C-2 in Attachment C for a list of wildlife species observed 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 or during a review of aerial photography. 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 or during a review of aerial photography. Therefore, no amphibians are expected to occur.

Reptiles

Western fence lizard (*Scleroporus occidentalis*) was observed in the project site during the field survey. Other reptiles such as western side-blotched lizard (*Uta stansburiana elegans*), long-nosed leopard lizard (*Gambelia wislizenii),* Great Basin whiptail (*Aspidoscelis tigris tigris*), and Mohave rattlesnake (*Crotalus scutulatus*) could also occur within the project site.

Birds

A total of four (4) bird species were detected during the field survey. One special-status bird species, California horned lark (*Eremophila alpestris actia*; CDFW Watch List) was observed on-site.

Nesting birds are protected pursuant to the federal Migratory Bird Treaty Act (MBTA)[2] of 1918 and the California Fish and Game Code (CFGC)[3]. 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. Desert scrub habitat occurring within the project site provides some suitable nesting habitat for various year-round and seasonal bird species; however, no active nests or birds displaying overt nesting behavior were observed during the field survey. Additionally, no indication of nesting by burrowing owl (*Athene cunicularia*) were observed on-site and only one burrow potentially suitable for nesting by the species was detected 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. No mammal species were observed during the field survey. Common mammalian species that may occur within the project site include black-tailed jackrabbit (*Lepus californicus*), desert cottontail (*Sylvilagus audubonii*), and coyote (*Canis latrans*). Burrows potentially suitable for fossorial mammals, such as California ground squirrel (*Otospermophilus beecheyi*), coyote, kit fox (*Vulpes macrotis*), or American badger (*Taxidea taxus*) are generally absent from the project site and no sign of any of these species were observed on-site.

Bats occur throughout most of California; however, no bats are expected to occur within the project site due to the absence of suitable roosting habitat (e.g., hollow tree trunks/limbs, tree foliage, caves, bridges, buildings). Bats may occasionally forage across the project site, but noise and light disturbances from vehicular traffic and human presence, related to surrounding land uses, reduce the site's suitability to provide foraging habitat for bats.

7. 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.

[2] The federal Migratory Bird Treaty Act (MBTA) prohibits the take (including killing, capturing, selling, trading, and transport) of protected migratory bird species without prior authorization by the U.S. Fish and Wildlife Service. Refer to: https://www.fws.gov/law/migratory-bird-treaty-act-1918

[3] California Fish and Game Code (CFGC)Section 3503 makes it unlawful to take, possess, or needlessly destroy the nest or eggs of any bird, except as otherwise provided by the CFGC 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.*).

Although the project area is relatively undisturbed, with open areas surrounding the site, wildlife movement into or out of the project site is likely reduced by the presence of surrounding roadways (i.e., Avenue G, 30th Street West, State Route 14) and the nearby airfield. As a result, vehicle roadway/traffic, airline noise/disturbance, lighting, and presence of humans further decreases the suitability of the project site to serve as a significant wildlife movement corridor or linkage.

A review of CDFW's Terrestrial Habitat Connectivity Viewer (CDFW 2024f), indicates that the project site is not located within a mapped wildlife corridor, wildlife linkage area, or other statewide or regional wildlife connectivity overlay included in the viewer. Further the project site falls within an area identified in the viewer as "Limited Connectivity Opportunity" (CDFW 2024f) The project site is also not located within any designated wildlife corridor or Significant Ecological Area (SEA) identified in the City of Lancaster General Plan 2030 or Los Angeles County General Plan (County of Los Angeles 2015). The Antelope Valley SEA is located approximately 3.0 miles northeast of the project site, extending from the Angeles National Forest to the playa lakes within Edwards Air Force Base and encompassing the two largest drainages along the northern slope of the San Gabriel Mountain range. The San Andreas SEA occurs approximately 8.0 miles to the southwest and is aligned along the San Andreas fault line, providing a valuable connection between the San Gabriel and Tehachapi Mountain ranges. These SEAs protect significant desert drainage features and areas of native desert habitat that serve as major linkages and movement corridors for wildlife species within the region. Migrating wildlife are more likely to utilize the Antelope Valley SEA as a wildlife corridor or linkage to other natural habitats than the project area. However, undisturbed desert scrub habitat is present in the vicinity of the project site, providing opportunities for movement around the project site.

8. State and Federal Aquatic 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 (Corps) Regulatory Branch regulates discharge of dredged or fill material into "waters of the U.S." (WofUS) 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 (Porter-Cologne), and the CDFW regulates alterations to streambed and associated vegetation communities under Section 1600 *et seq*. of the CFGC.

No aquatic features were identified within the project site during a review of the USFWS's National Wetlands Inventory Mapper (USFWS 2024c) and no such features are evident in aerial photography or on the USGS topographic map. Although no formal jurisdictional delineation was completed, no aquatic features that potentially fall under State and/or federal regulatory jurisdiction were identified during the field survey. No areas dominated by hydrophytic plants or areas exhibiting evidence of hydrology typical of jurisdictional areas were observed.

9. Special-Status Biological Resources

The CNDDB (CDFW 2024a) and CIRP (CNPS 2024a) were queried for reported locations of special-status plant and wildlife species as well as special-status natural vegetation communities occurring in the USGS *Lancaster West, Lancaster East, Palmdale, Ritter Ridge, Sleepy Valley, Del Sur, Little Buttes, Rosamond*

Lake, California 7.5-minute quadrangles, while IPaC was quired for such resources occurring in the project region. 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 have the potential to provide suitable habitat(s) for special-status plant and wildlife species. Additionally, the potential for each special-status species identified during the database reviews to occur within the project site was 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.

Twenty-seven (27) special-status plant species, thirty-five (35) special-status wildlife species, and six (6) sensitive natural communities were identified during reviews of the CNDDB, CIRP, and IPaC. 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 Attachment D*: Special-Status Biological Resources Identified During Database Reviews*.

Special-Status Plants

A total of twenty-seven (27) special-status plant species were identified during database reviews (refer to Table D-1 in Attachment D). Based on results of the field survey, the specific habitat preferences, occurrence records, known current distributions, and elevation ranges, Michael Baker determined that four special-status plant species assigned a California Rare Plant Rank (CRPR) by CNPS were determined to have high potential to occur on-site, including alkali mariposa-lily (*Calochortus striatus*; CRPR 1B.2), Mohave spineflower (*Chorizanthe spinosa*; CRPR 4.2), Rosamond eriastrum (*Eriastrum rosamondense*; CRPR 1B.1), and golden goodmania (*Goodmania luteola;* CRPR 4.2). These species are discussed further below. All remaining special-status plant species identified during the literature review were determined to have either low potential or are not expected to occur on-site (refer to Table D-1, Attachment D)

Alkali mariposa-lily

Alkali mariposa-lily has a CRPR of 1B.2, indicating the species is rare, threatened, or endangered in California and elsewhere, and moderately threatened in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat). This species is a perennial bulbiferous herb native to the Mojave Desert in California and Nevada, where it is known from chaparral, chenopod (*Atriplex*) scrub, meadows and seeps, and Mojavean desert scrub, preferring alkaline microhabitats in these communities. It is found at elevations ranging from 297 to 5,460 feet amsl and blooms April-June.

According to the CNDDB, there are fifty-five (55) occurrence records for alkali mariposa-lily within the USGS *Lancaster West, Lancaster East, Palmdale, Ritter Ridge, Sleepy Valley, Del Sur, Little Buttes,* and *Rosamond, Rosamond Lake, California* 7.5-minute quadrangles. The closest extant occurrence (Occurrence Number 98) was recorded in 2005, approximately 2.0 miles west of the project site, in undisturbed habitat consisting of *Atriplex* scrub (CDFW 2024a), a vegetation community similar to that occurring on-site; however, it is assumed extirpated from that location due to development. Multiple occurrences of this species from within the past 20 years occur within 5 miles north-northwest of the project site. This species was identified and mapped on adjacent parcels to the south and west of the subject parcel during protocol rare plant surveys conducted by Michael Baker in 2023 (Michael Baker 2023b). No individuals of this species were identified during the field survey; however, the survey was conducted outside the blooming period of this species and it likely would not be detectable at the time of the field survey. With suitable habitat and alkaline soils (Pond-Oban complex) preferred by this species occurring on-site and observations of the species on adjacent parcels in 2023, Michael Baker determined that this species has high potential to occur on-site. Protocol rare plant surveys will be completed during the 2025 blooming season.

Mojave spineflower

Mojave spineflower has a CRPR of 4.2, indicating a species of limited distribution – Watch List, and moderately threatened in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat). This species is an annual herb that occurs in chenopod scrub, Joshua tree woodlands, Mojavean desert scrub, and playas. It is found at elevations ranging from 1,393 to 3,537 feet amsl and blooms March-July.

According to the CNDDB, there are zero occurrence records for Mojave spineflower within the USGS *Lancaster West, Lancaster East, Palmdale, Ritter Ridge, Sleepy Valley, Del Sur, Little Buttes,* and *Rosamond, Rosamond Lake, California* 7.5-minute quadrangles. Records of this species from the project vicinity are identified in CalFlora (2024b). This species was identified and mapped on adjacent parcels to the south and west of the subject parcel during protocol rare plant surveys conducted by Michael Baker in 2023 (Michael Baker 2023b). No individuals of this species were identified during the field survey; however, the survey was conducted outside the blooming period of this species and it likely would not be detectable at the time of the field survey. With suitable habitat (desert scrub) and alkaline soils preferred by this species occurring on-site and observations of the species in adjacent parcels in 2023, Michael Baker determined that this species has high potential to occur on-site. Protocol rare plant surveys will be completed during the 2025 blooming season.

Rosamond eriastrum

Rosamond eriastrum has a CRPR of 1B.1, indicating a species that is rare, threatened, or endangered in California and elsewhere, and is seriously threatened in California (over 80% of occurrences threatened/high degree any immediacy of threat). This species is an annual herb that is native to California. It is endemic to a small area between Rosamond and Lancaster in Los Angeles County, where it is known from openings in chenopod (*Atriplex*) scrub and along the edges of vernal pools, preferring alkaline hummock microhabitats. It is found at elevations ranging from 2,300 feet to 2,369 feet amsl and blooms April-May.

According to the CNDDB, there are seven (7) occurrence records for Rosamond eriastrum within the USGS *Lancaster West, Lancaster East, Palmdale, Ritter Ridge, Sleepy Valley, Del Sur, Little Buttes,* and *Rosamond, Rosamond Lake, California* 7.5-minute quadrangles. The closest extant occurrence (Occurrence Number 2) was recorded in 2005, approximately 0.67-mile west of the project site, in alkali habitat (CDFW 2024a). Another occurrence recorded in 2010 occurs approximately 3 miles to the north. This species was identified and mapped on adjacent parcels during protocol rare plant surveys conducted by Michael Baker in 2023 (Michael Baker 2023b). No individuals of this species were identified during the field survey; however, the survey was conducted outside the blooming period of this species and it likely would not be detectable at the time of the field survey. With suitable habitat and alkaline conditions preferred by this species occurring on-site and observations of this species in adjacent parcels in 2023, Michael Baker determined that this species has high potential to occur on-site. Protocol rare plant surveys will be completed during the 2025 blooming season.

Golden goodmania

Golden goodmania has a CRPR of 4.2, indicating a species of limited distribution – Watch List, and moderately threatened in California (20 to 80 percent of occurrences threatened/moderate degree and immediacy of threat). This species is an annual herb that occurs in meadows and seeps, Mojavean desert scrub, playas, and valley and foothill grassland habitats. It is found at elevations ranging from 165 to 7,148 feet amsl and blooms April-August.

According to the CNDDB, there are zero occurrence records for golden goodmania within the USGS *Lancaster West, Lancaster East, Palmdale, Ritter Ridge, Sleepy Valley, Del Sur, Little Buttes,* and *Rosamond, Rosamond Lake, California* 7.5-minute quadrangles. Records of this species from the project vicinity are identified in CalFlora (2024c). This species was identified and mapped on adjacent parcels to the south and west of the subject parcel during protocol rare plant surveys conducted by Michael Baker in 2023 (Michael Baker 2023b). No individuals of this species were identified during the field survey; however, the survey was conducted outside the blooming period of this species and it likely would not be detectable at the time of the field survey. With suitable habitat (desert scrub) and alkaline soils (Pond-Oban complex) preferred by this species occurring on-site and observations of the species in adjacent parcels in 2023, Michael Baker determined that this species has high potential to occur on-site. Protocol rare plant surveys will be completed during the 2025 blooming season.

Special-Status Wildlife

A total of thirty-five (35) special-status wildlife species have been recorded in the USGS *Lancaster West, Lancaster East, Palmdale, Ritter Ridge, Sleepy Valley, Del Sur, Little Buttes, Rosamond Lake,* and *Rosamond, California* 7.5-minute quadrangles by the CNDDB and project region by the IPaC (refer to Table D-2, Attachment D). California horned lark (CDFW WL) was the only special-status wildlife species observed during the field survey and could potentially nest within the project site. Based on results of the field survey, the specific habitat preferences, occurrence records, known current distributions, and elevation ranges, one federal and/or State-listed species, Swainson's hawk (*Buteo swainsoni*; State-threatened [ST]) has low potential to occur across the site as a foraging or migrating transient. Additionally, Michael Baker determined that a number of non-listed special-status raptor and songbird species known from the region also have low or moderate potential to occur within the project site as foraging or migrating transients but are not expected to nest within the project site (refer to Table D-2, Attachment D). These include ferruginous hawk (*Buteo regalis*; CDFW WL), mountain plover (*Charadrius montanus*, CDFW Species of Special Concern [SSC]), northern harrier (*Circus hudsonius*; CDFW SSC), merlin (*Falco columbarius*; CDFW WL), and loggerhead shrike (*Lanius ludovicianus*; CDFW SSC).

While no individuals or sign of the species were detected and only one burrow was recorded on-site that is potentially suitable for burrowing owl, this species is known from the Antelope Valley region and has potential to nest and forage within the project site prior to construction. Due to their regional significance in the project area, burrowing owl, Swainson's hawk, as well as Mohave ground squirrel (*Xerospermophilus mohavensis*; ST) and desert tortoise (*Gopherus aggassizii*, federally listed Threatened [FT] and ST) are described and evaluated in further detail below.

Burrowing Owl

The burrowing owl was recently designated by the California Fish and Game Commission as a Candidate species for listing under the California Endangered Species Act (CESA) as defined by Section 2068 of the CFGC (Commission 2024). This species 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) 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 drainpipes, 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 fifty-nine (59) occurrence records for burrowing owl within USGS *Lancaster West, Lancaster East, Palmdale, Ritter Ridge, Sleepy Valley, Del Sur, Little Buttes, Rosamond Lake,* and *Rosamond, California* 7.5-minute quadrangles. The closest extant occurrence (Occurrence Number 1,888) was recorded in 2013, approximately 2.36 miles south of the project site, where three (3) owls were observed near a burrow, two adults and one juvenile (CDFW 2024a).

While this species is known from the Antelope Valley region, only one potentially suitable burrow was recorded on-site (see Photo 6, Attachment B), and no observations of individuals or sign of the species were made during the field survey. Additionally, no individuals or sign of the species were identified by Michael Baker during focused burrowing owl surveys conducted in 2023 across the adjacent parcels (Michael Baker 2023c). Since no individuals or sign, and only one unoccupied burrow potentially suitable for the species was observed on-site during the field survey, and no individuals or sign were identified during protocol surveys across adjacent parcels in 2023, this species was determined to have a low potential to occur on-site.

Swainson's Hawk

Swainson's hawk has historically nested around grasslands, shrublands, and open woodlands, particularly in California and in other agriculture-heavy regions where native habitat has been converted to farmland. This species has adapted to nesting in the vicinity of agricultural fields, particularly irrigated pastures and in row, grain, and hayfields (Bechard et al. 2020). Nests are constructed in trees in close proximity to foraging habitat and may be constructed in lone trees or within a row of trees. This species is known to nest in the Antelope Valley, with 24 records of active nests documented in the CNDDB within the USGS *Lancaster West, Lancaster East, Palmdale, Ritter Ridge, Sleepy Valley, Del Sur, Little Buttes, Rosamond Lake,* and *Rosamond, California* 7.5-minute quadrangles. All but one of these records is from the past 20 years and approximately half of these nest records occur 8 to 10 miles north-northwest of the project site in the vicinity of Avenue A and 100th Street Southwest. The nearest record of an active nest (Occurrence Record 2,773) occurs approximately 2.5 miles east of the project site and was last active in 2016. The most recent record of an active nest, from 2020, occurs approximately 6 miles north-northwest of the project site.

No Swainson's hawk was detected during the field survey. Additionally, no individuals were detected during the general survey (Michael Baker 2023a) or incidentally during focused burrowing owl surveys (Michael Baker 2023c) conducted across the adjacent parcels in 2023. Trees are absent from the project site and as a result, this species is not expected to nest within the project site. Native vegetation occurring on-site provides value as foraging habitat; however, this species often prefers foraging in and around agricultural areas that provide a suitable food source of small mammals, birds, and insects, species which are often attracted to agricultural areas, and which provide food and water sources for prey of Swainson's hawk. Agricultural areas are generally absent from a 5-mile radius around the project site. This species has low potential to occur across the project site as a foraging or migrating transient and is not expected to nest in the project site.

Mohave Ground Squirrel

The Mohave ground squirrel (MGS) is a small diurnally-active rodent endemic to the western Mojave Desert of California in San Bernardino, Los Angeles, Kern, and Inyo counties. It has one of the smallest geographic ranges of any North American ground squirrel and spends much of the year in underground burrows to avoid the harsh conditions of its desert environment. Optimal habitats are open desert scrub, alkali desert scrub, Joshua tree, and annual grasslands. MGS feed on a wide variety of green vegetation, seeds, and fruits and forage on the ground or in shrubs and Joshua trees. This species prefers sandy to gravelly soils and avoids rocky areas. Populations are reduced by urban development, off-road vehicle use, and agriculture.

No MGS or sign of the species were detected during the field survey. Additionally, no individuals or sign of the species were detected during the general survey (Michael Baker 2023a) or incidentally during focused burrowing owl surveys (Michael Baker 2023c) conducted across the adjacent parcels in 2023. According to the CNDDB, there are seven (7) occurrence records for MGS within the USGS *Lancaster West, Lancaster East, Palmdale, Ritter Ridge, Sleepy Valley, Del Sur, Little Buttes, Rosamond Lake,* and *Rosamond, California* 7.5-minute quadrangles. The nearest known extant record in the CNDDB (No. 26) occurs approximately 5.3 miles southeast of the project site and was recorded roughly 40 years ago in 1984. This record is from an area that has since been developed and this species likely does not persist at this location. The second record identified during the CNDDB review (Occurrence Record 281) is from approximately 8.4 miles north-northeast of the project site and was recorded 50 years ago in 1973. The project site is located along the far southwestern-most edge of the MGS geographic range, but it is not within any area containing a core or peripheral MGS population (CDFW 2019). In addition, MGS were not detected within any regional surveys or protocol grids conducted within the Palmdale/Lancaster area between 2008 and 2012, and MGS have not been trapped or observed anywhere in Los Angeles County away from Edwards Air Force Base and its immediate boundary since 1991 (Leitner 2015). A recent update on the status of MGS by Leitner (2021) indicates that results of trapping efforts since the 2000's have largely failed to document the species' occurrence in Los Angeles County, except for recent occurrences in the extreme northeastern corner of the county, on or adjoining Edwards Air Force Base. These results strongly suggest the species is essentially extirpated in Los Angeles County (Leitner 2021).

Due to a lack of observations of individuals or sign of the species during the field survey, a lack of occurrence records within the vicinity, results of past and recent Leitner studies (2015, 2022) reflecting negative results, and distance from existing populations, MGS is not expected to occur on-site.

Desert Tortoise

The desert tortoise is currently designated as a State and federally threatened species. The Mojave population of the desert tortoise inhabits areas north and west of the Colorado River in the Mojave Desert of California, Nevada, Arizona, and southwestern Utah, and in the Sonoran Desert in California. Throughout the majority of the Mojave Desert, desert tortoise occurs most commonly on gentle sloping soils characterized by an even mix of sand and gravel and sparsely vegetated low-growing vegetation where there is abundant inter-shrub space. The typical habitat for this species is creosote bush scrub below approximately 5,500 feet in elevation. Wildflowers, grasses, and in some cases, cacti make up the bulk of their diet. Some of the more common forbs consumed by desert tortoise include desert dandelion (*Malacothrix glabrata*), primrose (*Camissonia* spp. and *Oenothera* spp.) desert plantain (*Plantago ovata*), milkvetches (Astragalus spp.), gilia (Gilia spp.), desert marigold (*Baileya multiradiata*), Mojave lupine (*Lupinus odoratus*), phacelia (*Phacelia* spp.), desert wishbone-bush (*Mirabilis laevis*), lotus (*Lotus* spp.), forget-me-nots (*Cryptantha* spp.), goldfields (*Lasthenia californica*), California coreopsis (*Leptosyne californica*), white-margin sandmat (*Euphorbia albomarginata*), and the introduced red stemmed filaree (*Erodium cicutarium*). The desert tortoise spends 95 percent of its life underground and will opportunistically utilize burrows of various lengths, deep caves, rock and caliche crevices, or overhangs for cover. Therefore, a moderately friable soil is required to allow for burrow construction and ensure that burrows do not collapse.

The project is not located within designated Critical Habitat for desert tortoise. There are no CNDDB occurrence records of desert tortoise within the USGS *Lancaster West, Del Sur, Little Buttes,* and *Rosamond, California* 7.5-minute quadrangles The closest extant record in the CNDDB (No. 1) was recorded in 2004 and is over 15 miles away to the east of the project site. The project site is located near the southwestern-most edge of the desert tortoise's geographic range.

No desert tortoise or sign of the species were detected during the field survey. Additionally, no individuals or sign of the species were detected during the general survey (Michael Baker 2023a) or incidentally during focused burrowing owl surveys (Michael Baker 2023c) conducted across the adjacent parcels in 2023. Due to a lack of observations of individuals or sign of the species during the field survey, the presence of habitat that is only marginally suitable for the species, a lack of occurrence records within the vicinity, and distance from existing populations, desert tortoise is not expected to occur on-site.

Sensitive Natural Communities

Six (6) sensitive natural vegetation communities, including wildflower field, valley needlegrass grassland, southern coast live oak riparian forest, southern cottonwood willow riparian forest, southern riparian scrub, southern willow scrub, were reported from the USGS *Lancaster West, Lancaster East, Palmdale, Ritter Ridge, Sleepy Valley, Del Sur, Little Buttes, Rosamond Lake,* and *Rosamond, California* 7.5-minute quadrangles by the CNDDB (Table D-1, Attachment D). These sensitive natural communities do not occur on-site and the disturbed shadscale scrub habitat present is not listed by CDFW as a California Sensitive Natural Community (CDFW 2023).

10. 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. At this time, no federal nexus is anticipated. Further, the project site is not located within USFWS-designated Critical Habitat for any federally listed species (refer to Figure 5, *Critical Habitat*, Attachment A). As a result, consultation regarding Critical Habitat is not required.

The project site is also not located within any approved Natural Community Conservation Plan/Habitat Conservation Plan area or area for which is NCCP/HCP is in development (CDFW 2024g).

11. Regional and Local Policies and Ordinances

County of Los Angeles Significant Ecological Areas

Significant Ecological Areas (SEA) are areas within Los Angeles County that include irreplaceable biological resources and have been formally identified in the Los Angeles County General Plan (County of Los Angeles 2015). The SEA Program is intended to conserve genetic and physical diversity within Los Angeles County by designating biological resource areas that are capable of sustaining themselves into the future. On December 17, 2019, a SEA ordinance was adopted by the County Board of Supervisors which establishes permitting requirements, development standards, and review processes for new development within SEAs, unless it is exempt. As previously described, the project site does not coincide with any SEA (refer to Figure 6, *Significant Ecological Areas*, Attachment A).

City of Lancaster Municipal Code

Lancaster Municipal Code (Municipal Code) Chapter 15.66, *Biological Impact Fee*, establishes a biological impact fee to mitigate long-term incremental impacts of new development on biological resources on a regional basis. The fee is based upon expected regional effects from new development and fees necessary to contribute to the City's "fair share" to mitigate impacts on a regional basis. The fee applies to all new development on vacant land which has not been previously developed. This includes land subdivisions, new development approvals, and requests for extension. Additionally, Municipal Code Chapter 22.102, *Hillside Management and Significant Ecological Areas*, establishes development guidelines and required permits for development in or near SEAs.

It is anticipated the proposed project would be subject to the biological impact fee established in Municipal Code Chapter 15.66; however, as the site is not located in or near an SEA, Municipal Code Chapter 22.102 would not apply to the project.

12. Conclusions and Recommendations

Approximately 26.56 acres of disturbed shadscale scrub and 3.43 acres of disturbed area were observed and mapped within the boundaries of the project site during the field survey.

Four (4) special-status plant species were mapped during focused rare plant surveys conducted in 2023 on adjacent parcels by Michael Baker (2023b), including alkali mariposa-lily, Mojave spine flower, golden goodmania, and Rosamond eriastrum. Rare plant surveys have not been completed for this project; however, focused rare plant surveys are anticipated to be conducted during the appropriate blooming period in 2025 across the project site to determine the presence and distribution of any special-status plant species. Special-status species with a CRPR of 4 typically do not require evaluation under the California Environmental Quality Act (CEQA) and as a result, mitigation for Mojave spineflower and golden goodmania is not anticipated at this time. Impacts to alkali mariposa lily and Rosamond eriastrum would be considered significant under CEQA and as such, mitigation to reduce impacts to these species to below a level of significance is anticipated. At this time, participation in the City of Lancaster's existing in lieu fee program is anticipated to mitigate for impacts to any rare plants under the project, should such species be identified during focused surveys planned to be conducted in 2025.

California horned lark (CDFW WL) was the only special-status wildlife species observed during the field survey and could potentially nest within the project site. Additionally, several other special-status raptor and songbird species identified during the literature review have low or moderate potential to occur within the project site, primarily as foraging or migrating transients (refer to Table D-2, Attachment D). One burrow potentially suitable for burrowing owl was detected during the field survey; however, no sign of the species was detected on-site and no burrowing owl were identified during the field survey.

In order to avoid and/or minimize potential significant impacts to the special-status biological resources outlined above, it is recommended that the following Avoidance and Minimization Measures (AMM) be implemented.

For special-status raptor and songbird species identified as potentially occurring on-site, as well as common bird species protected under the MBTA and CFGC that may occur on-site, the following measure is recommended to reduce potential impacts to less than significant:

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 shall 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.

Although only one potentially suitable burrow and no individual burrowing owl or sign of the species were detected on-site, this species is known from the Antelope Valley and since potentially suitable habitat for the species is present on-site, the following measure is recommended to reduce potential impacts to burrowing owl to less than significant:

AMM BIO-2: A pre-construction burrowing owl clearance survey shall be conducted no more than 30 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* (CDFG 2012). Documentation of surveys and findings shall be submitted to the City of Lancaster 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 within the development footprint or within 500-feet of the development footprint, coordination with CDFW regarding the need for further surveys and to obtain an Incidental Take Permit (ITP) for this Candidate species for listing under CESA would be required prior to initiating project activities.

Since four special-status plant species with CRPR designation by CNPS were determined to have a high potential to occur on-site, the following AMM is recommended to record any special-status plant species present and their distribution on-site:

AMM BIO-3: To ensure proper compensatory mitigation for impacts to special-status plant species, prior to construction, and during the appropriate blooming periods for special-status plant species with the potential to occur within the project site, qualified botanists shall conduct focused rare plant surveys across the entire project site following CDFW (2018), USFWS (2011) and/or CNPS (2001) survey guidelines to determine presence or absence of special-status plant species. The surveys shall be floristic in nature (i.e., identifying all plant species to the taxonomic level necessary to determine rarity) and include site visits covering the blooming period of special-status plant species with potential to occur on-site.

Should special-status plant species be identified on-site, coordination with the City of Lancaster to mitigate for unavoidable impacts to CRPR-designated species via its existing in lieu fee mitigation program is anticipated to reduce potential impacts to special-status plant species to less than significant. Although not expected, if State- and/or Federally-listed plant species are identified on-site and avoidance is not feasible, consultation with the CDFW and/or USFWS would be required prior to initiating any on-site project activities.

Please do not hesitate to contact Anna Jullie at (616) 502-1186 or anna.jullie@mbakerintl.com, or Arthur Popp at (949) 379-0383 or arthur.popp@mbakerintl.com should you have any questions or require further information.

Sincerely,

Anna Jullie
Biologist

Arthur Popp
Natural Resources Technical Manager

Attachments:

A. Project Figures

B. Site Photographs

C. Plant and Wildlife Species Observed List

D. Special-Status Biological Resources Identified During Database Reviews

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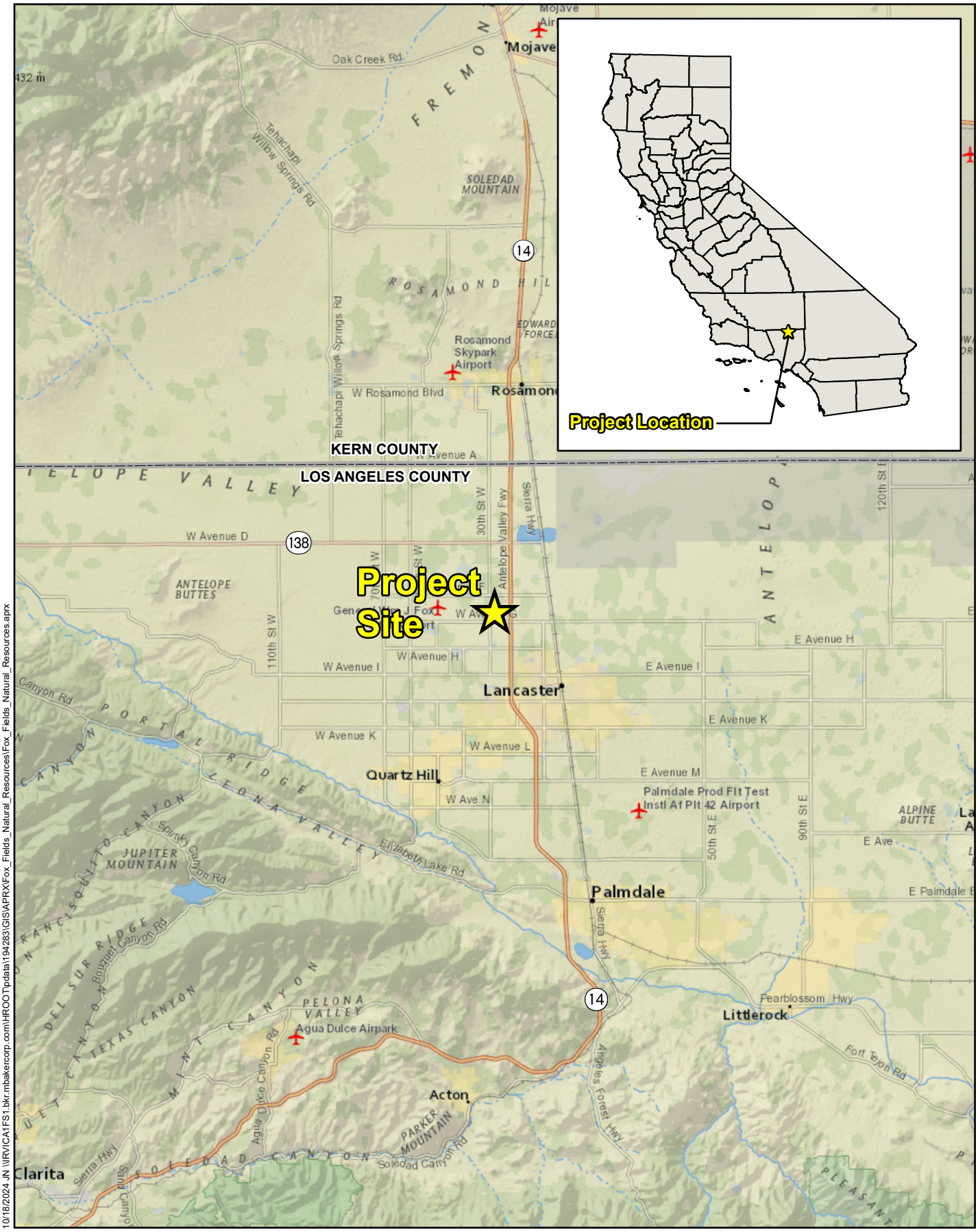
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Attachment A

Project Figures



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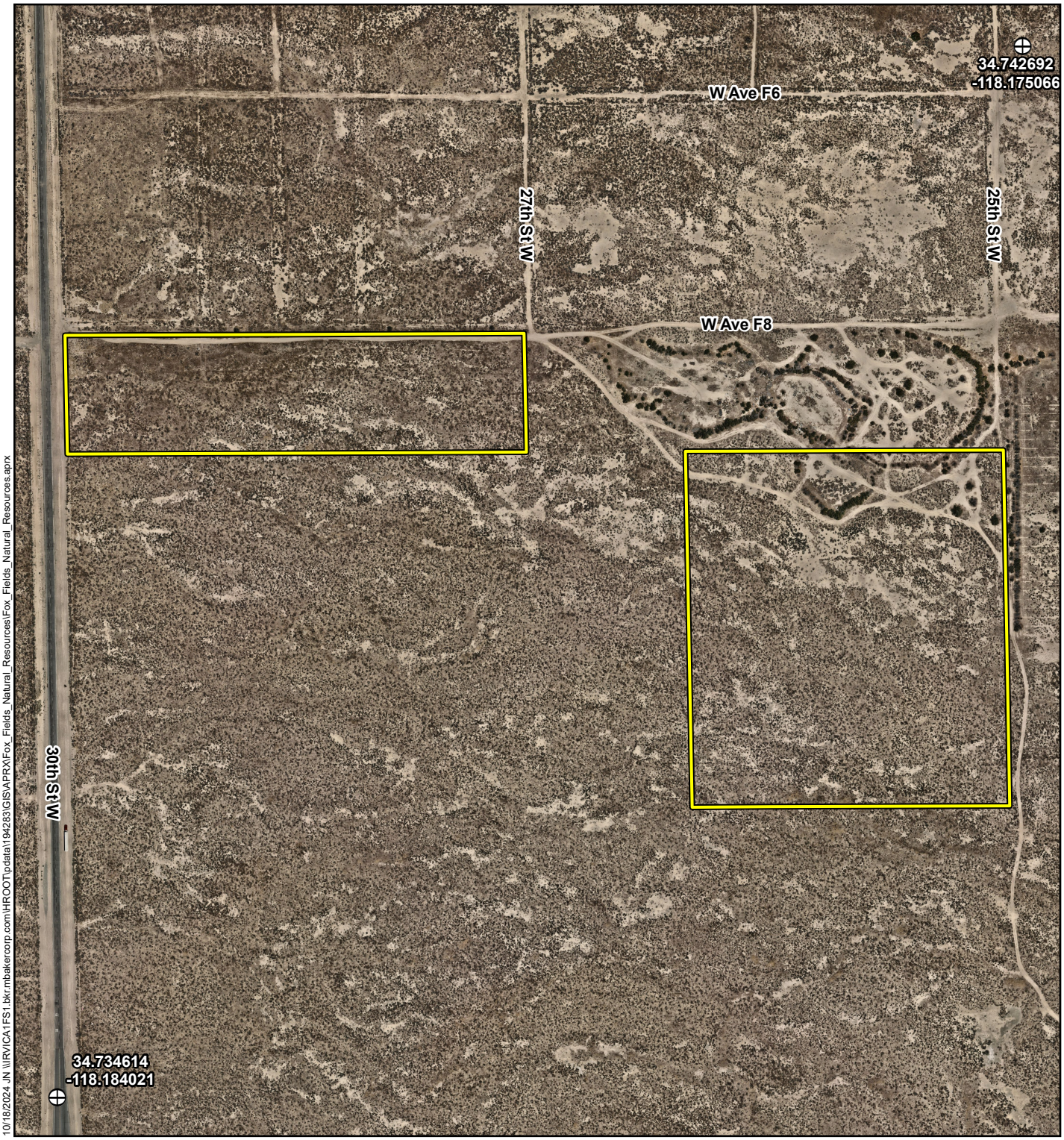
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Source: ArcGIS Online, 2018

SPR 24-010
BIOLOGICAL RESOURCES ASSESSMENT

Regional Vicinity

Figure 1



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Legend

Project Site

Reference Point

Michael Baker INTERNATIONAL

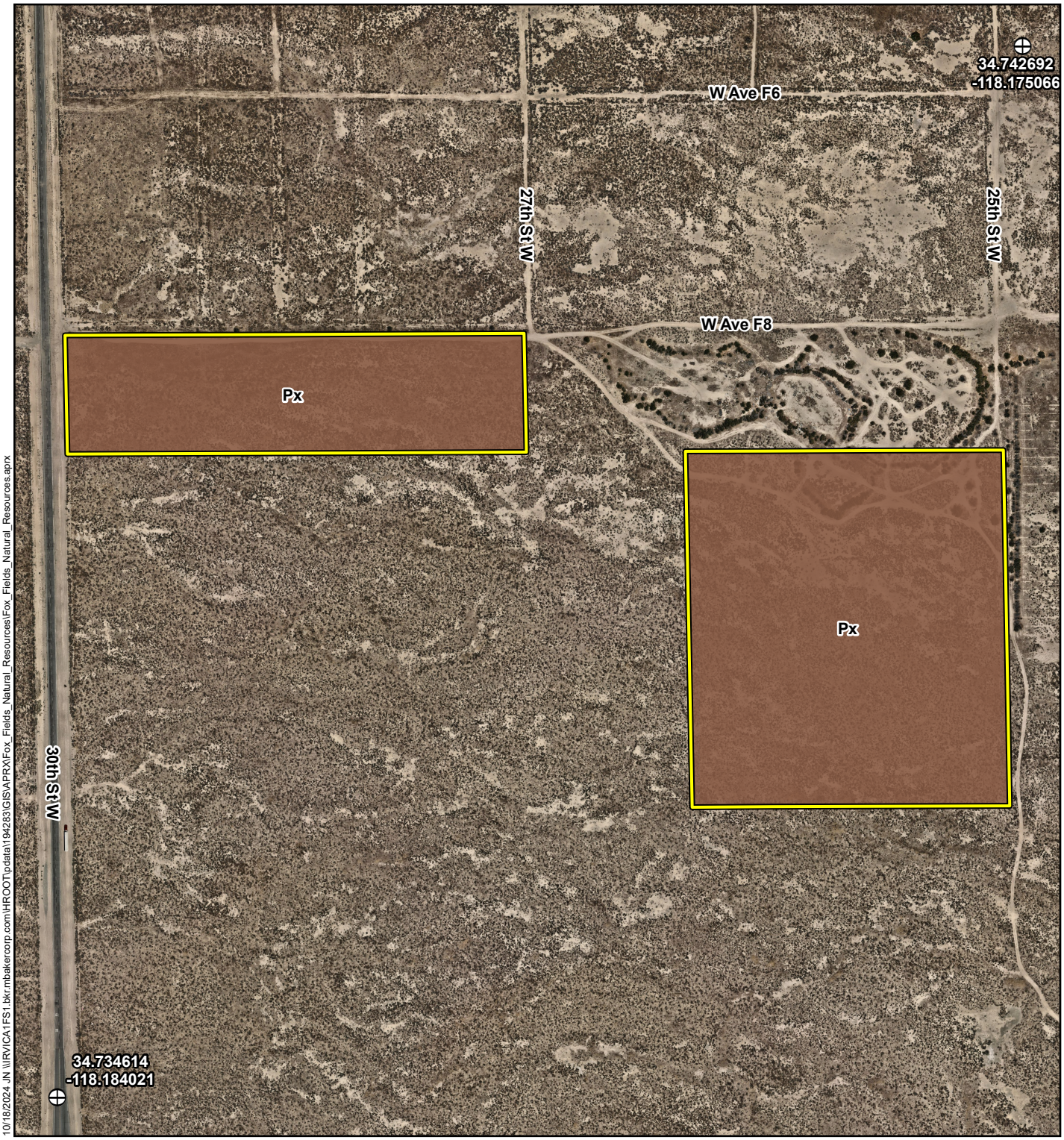
0 200 400 Feet

Source: Nearmap/Raymore Imagery (09/2023)

SPR 24-010
BIOLOGICAL RESOURCES ASSESSMENT

Project Site

Figure 2



10/18/2024 JN \\IRVICA1FS1.bkr.mbakercorp.com\HROOT\pdata\194283\GIS\APRX\Fox_Fields_Natural_Resources\Fox_Fields_Natural_Resources.aprx

Legend

- Project Site
- Px — Pond-Oban complex
- Reference Point

Michael Baker INTERNATIONAL

0 200 400 Feet

Source: Nearmap/Raymore Imagery (09/2023), USDA (09/2022)

SPR 24-010
BIOLOGICAL RESOURCES ASSESSMENT

USDA Soils

Figure 3



10/18/2024 JN \\RVICA1FS1.bkr.mbakercorp.com\HROOT\pdata\194283\GIS\APRX\Fox_Fields_Natural_Resources\Fox_Fields_Natural_Resources.aprx

Legend

- Project Site
- Reference Point
- Disturbed Shadscale Scrub (26.56 acres)
- Disturbed (3.43 acres)

Michael Baker INTERNATIONAL

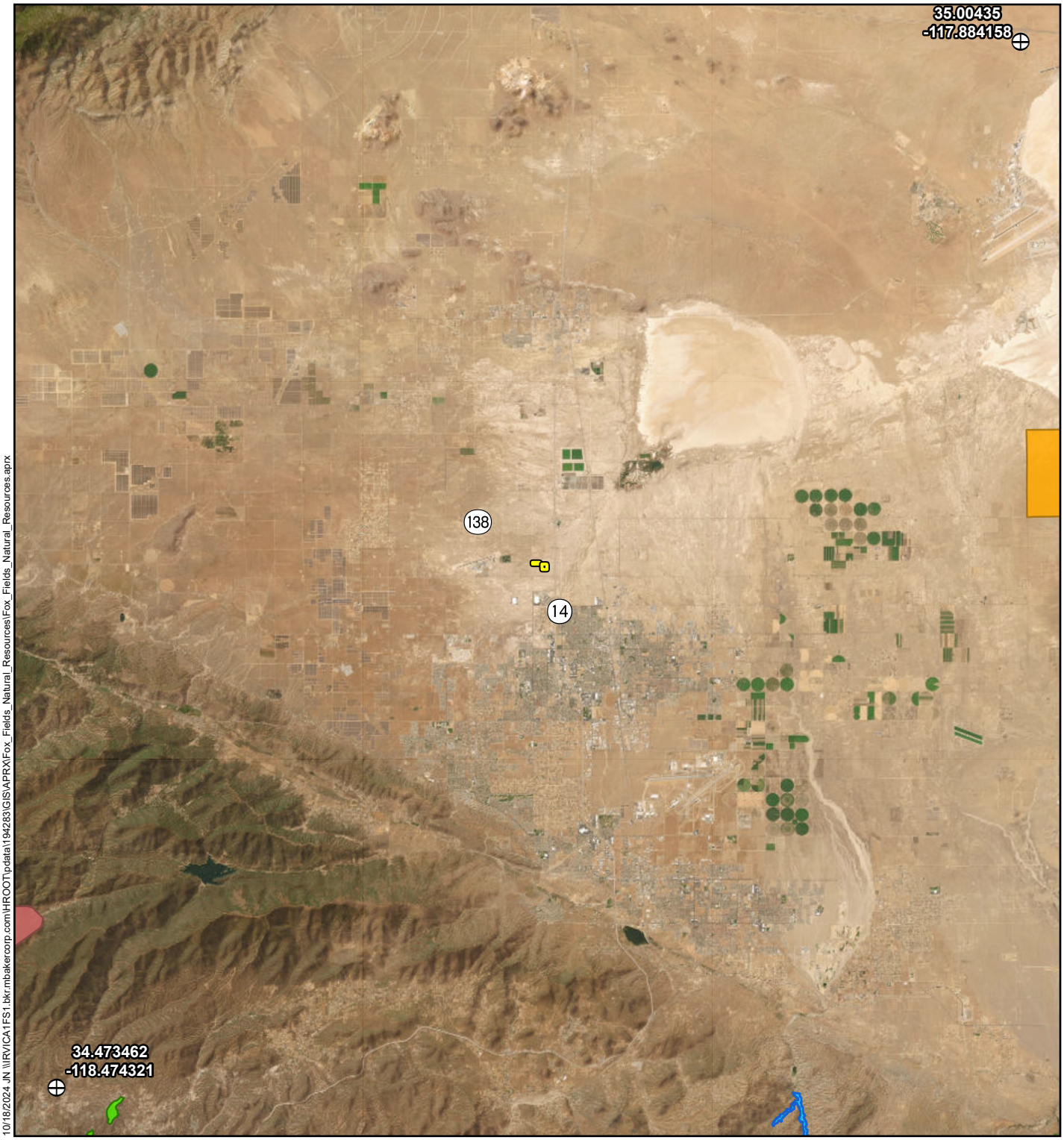
0 200 400 Feet

Source: Nearmap (07/2023)

SPR 24-010
BIOLOGICAL RESOURCES ASSESSMENT

Vegetation Communities and Other Land Uses

Figure 4



10/18/2024 JN \\IRVICA1FS1.bkr.mbakercorp.com\HROOT\pdata\194283\GIS\APRX\Fox_Fields_Natural_Resources\Fox_Fields_Natural_Resources.aprx

Legend

- Project Site
- Reference Point
- Arroyo Southwestern Toad (*Anaxyrus californicus*)
- California Red-legged Frog (*Rana draytonii*)
- Desert Tortoise (*Gopherus agassizii*)
- Spreading Navarretia (*Navarretia fossalis*)

Michael Baker INTERNATIONAL

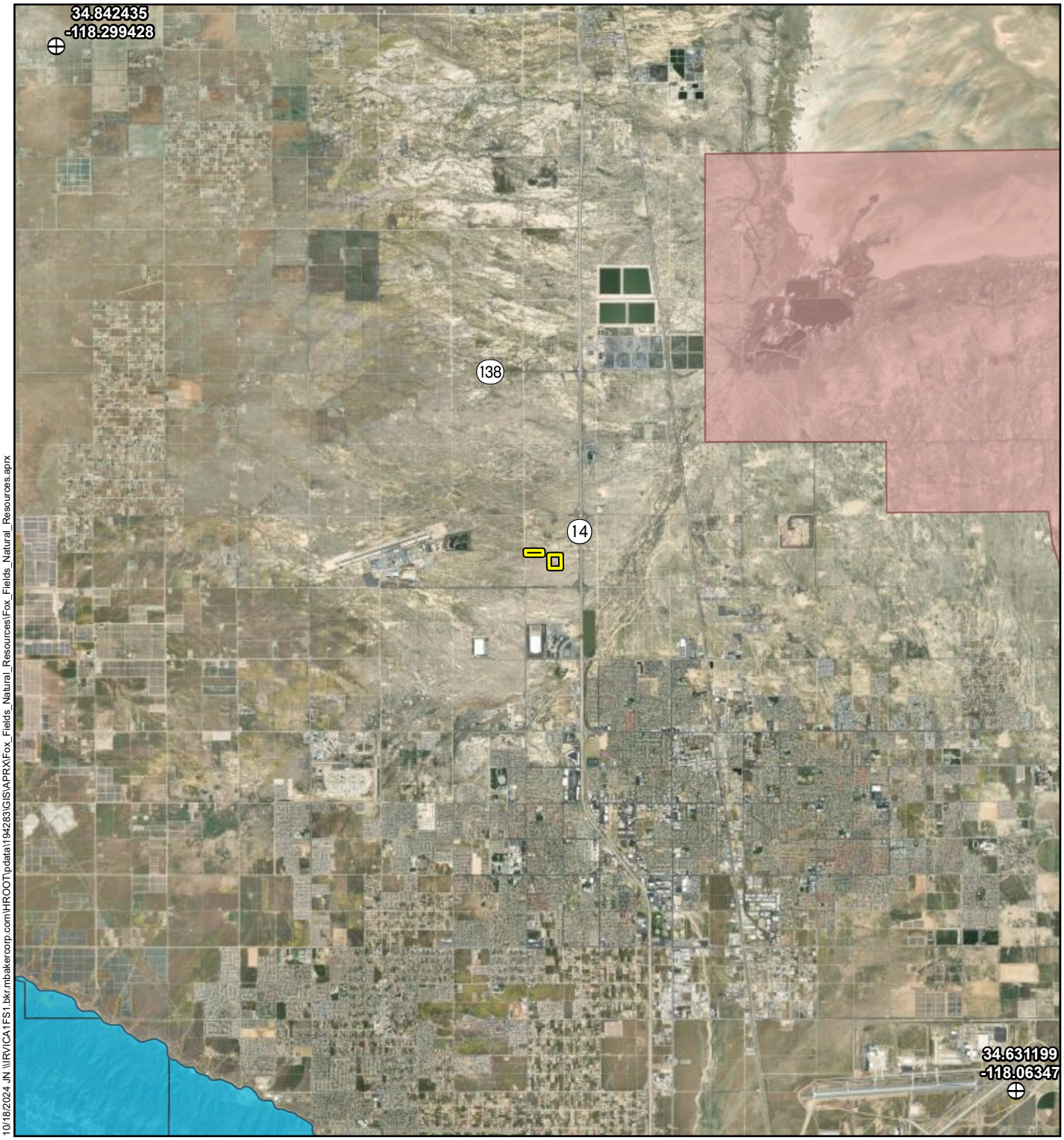
0 2.5 5 Miles

Vivid/Esri (2021), USFWS (09/2023)

SPR 24-010
BIOLOGICAL RESOURCES ASSESSMENT

Critical Habitat

Figure 5



10/18/2024 JN \\IRVICA1FS1.bkr.mbakercorp.com\HROOT\pdata\194283\GIS\APRX\Fox_Fields_Natural_Resources\Fox_Fields_Natural_Resources.aprx

Legend

- Project Site
- Reference Point
- Antelope Valley SEA
- San Andreas SEA

Michael Baker INTERNATIONAL

0 1 2 Miles

Vivid/Esri (2021), County of Los Angeles (12/2022)

SPR 24-010
BIOLOGICAL RESOURCES ASSESSMENT

Los Angeles County Significant Ecological Areas

Figure 6

Attachment B

Site Photographs



Photograph 1: North-facing view from southeast corner of the project site.



Photograph 2: East-facing view from northwest corner of the project site.



Photograph 3: Northwest-facing view of disturbed habitat in the northeast corner of the site and adjacent off-site areas.



Photograph 4: North-facing view from southwestern corner of the project site.



Photograph 5: Unoccupied burrow observed along the southern boundary of the project site.

Attachment C

Plant and Wildlife Species Observed Lists

Table C-1 Plant Species Observed List

*Scientific Name**	Common Name	Cal-IPC Rating
Plants		
Ambrosia dumosa	white-bur sage	
Amsinckia sp.	fiddleneck	
*Atiplex prostrata**	fat-hen	
Atriplex confertifolia	shadscale	
Atriplex lentiformis	big saltbush	
Atriplex polycarpa	allscale saltbush	
*Bromus madritensis**	Spanish brome	High
Centromadia pungens ssp. *pungens*	common spikeweed	
Distichlis spicata	salt grass	
Ericameria sp.	rabbitbrush	
Eriogonum sp.	buckwheat	
*Erodium cicutarium**	coastal heron's bill	Limited
*Hordeum murinum**	wall barley	Moderate
*Kochia scoparia**	summer cypress	Limited
Matricaria discoidea	pineapple weed	
Neokochia californica	Mojave red sage	
Pectocarya penicillata	northern pectocarya	
*Schismus barbatus**	common mediterranean grass	Limited
*Sisymbrium altissimum**	tumble mustard	
Sporobolus airoides	alkali sacaton	
Suaeda nigra	bush seepweed	

* 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.

Table C-2: Wildlife Species Observed

*Scientific Name**	Common Name	Special-Status Rank**
Birds		
Corvus brachyrhynchos	American crow	
Corvus corax	common raven	
Eremophila alpestris actia	California horned lark	Watch List
Melospiza melodia	song sparrow	
Thryomanes bewickii	Bewick's wren	
Zenaida macroura	mourning dove	
Mammals		
Sylvilagus audubonii	desert cottontail	
Reptiles		
Scleroporus occidentalis	western fence lizard	

* Non-native species

** **Special-Status Rank**

California Department of Fish and Wildlife

WL Watch List – taxa designated as Watch List were previously designated as Species of Special Concern (SSC) by CDFW but do not currently meet SSC criteria, and for which there is concern and a need for additional information to clarify status. Generally, taxa designated as Watch List species are of less conservation concern that SSC, whose populations and ranges have clearly declined, making them vulnerable to extinction.

Attachment D

Special-Status Biological Resources Identified During Database Reviews

Table D-1. Special-Status Plant Species and Sensitive Vegetation Communities

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Androsace elongate* ssp. *acuta California androsace	4.2 G5?T3T4 S3S4	Annual herb. Occurs in chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, and valley and foothill grassland habitats. Found at elevations ranging from 492 to 4,281 feet amsl. Blooming period is from March to June.	No	**Not Expected**: Suitable habitats preferred by this species are not present within the project site.
Astragalus hornii* var. *hornii Horn's milk-vetch	1B.1 GUT1 S1	Annual Herb. Lives in meadow, seeps, and playas. Found at elevations 173 feet to 2,366 feet above mean sea level (amsl). Blooms May-October.	No	**Not Expected**: Suitable habitats preferred by this species such as meadows, seeps, and playas, are not present within the project site.
Astragalus preussii* var. *laxiflorus Lancaster milk-vetch	1B.1 G4T2 S1	Perennial herb. Lives in chenopod scrub. Found at elevations ranging from 2,307 feet to 2,508 feet amsl. Blooms March-May.	No	**Not Expected**: Potentially suitable chenopod scrub preferred by this species is present within the project site. A CNDDB record of this species occurs approximately 3 miles southeast of the project site but is more than 100 years old.
Calochortus catalinae Catalina mariposa lily	4.2 G3G4 S3S4	Perennial bulbiferous herb. Habitats include chaparral, cismontane woodland, coastal scrub, valley and foothill grassland. Found at elevations ranging from 49 to 2,297 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.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Calochortus clavatus* var. *avius Pleasant Valley mariposa-lily	1B.2 G4T2 S2	Perennial bulbiferous herb. Occurs in lower montane coniferous forest (Josephine silt loam and volcanic). Found at elevations ranging from 1,000 to 5,906 feet amsl. Blooming period is May through July.	No	**Not Expected**: Suitable habitats preferred by this species are not present within the project site.
Calochortus clavatus* var. *gracilis slender mariposa-lily	1B.2 G4T2T3 S2S3	Perennial bulbiferous herb. Found in chaparral, coastal scrub, and valley and foothill grassland habitats. Found at elevations ranging from 1,050 to 3,280 feet amsl. Blooming period is March through June (November).	No	**Not Expected**: Suitable habitats preferred by this species are not present within the project site.
Calochortus palmeri var. palmeri Palmer's mariposa-lily	1B.2 G3T2 S2	Perennial bulbiferous herb. Occurs in mesic soils within chaparral, lower montane coniferous forest, and meadows and seeps. Grows in elevations ranging from 2,329 to 7,841 feet amsl. Blooming period is April through July.	No	**Not Expected**: Suitable habitats preferred by this species are not present within the project site.
Calochortus striatus alkali mariposa-lily	1B.2 G3 S2S3	Perennial bulbiferous herb. Grows in chaparral, chenopod scrub, Mojavean desert scrub, meadows, and seeps. Prefers alkaline habitats. Found at elevations ranging from 297 feet to 5,460 feet amsl. Blooms April-June.	No	**High**: Suitable habitat preferred by this species, including alkaline conditions, is present within the project site and this species was detected within adjacent parcels during rare plant surveys conducted during the 2023 blooming period. Further, there are numerous records of this species within 5 miles of the project site from within the past 20 years.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Calystegia peirsonii Peirson's morning-glory	4.2 G4 S4	Perennial rhizomatous herb. Occurs in chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, valley and foothill grassland. Found at elevations ranging from 67 feet to 6,910 feet amsl. Blooms April-June.	No	**Not Expected**: Suitable habitats preferred by this species are not present within the project site.
Canbya candida white pygmy-poppy	4.2 G3G4 S3S4	Annual Herb. Grows in Joshua tree woodland, Mojavean desert scrub, pinyon and juniper scrub. Found at elevations ranging from 1,561 feet to 5,320 feet amsl. Blooms March-June.	No	**Low**: Potentially suitable Mojavean desert scrub habitat occurs on-site. An undated CNDDB record occurs within three miles of the project site; no others occur within 10 miles.
Castilleja plagiotoma Mojave paintbrush	4.3 G4 S4	Perennial herb (hemiparasitic). Occurs in great basin scrub, Joshua tree woodland, lower montane coniferous forest, pinyon and juniper woodland. Found at elevations ranging from 871 feet to 8,541 feet amsl. Blooms April-June.	No	**Not Expected**: Suitable habitats preferred by this species are absent. Additionally, no CNDDB occurrence records were identified during the literature review.
Chorizanthe parryi* var. *parryi Parry's spineflower	1B.1 G3T2 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 7 feet to 5,568 feet amsl. Blooms April-June.	No	**Not Expected**: Suitable habitats preferred by this species are not present within the project site.
Chorizanthe spinosa Mojave spineflower	4.2 G4 S4	Annual herb. Occurs in chenopod scrub, Joshua tree woodlands, Mojavean desert scrub, playas. Found at elevations ranging from 1,393 feet to 3,537 feet amsl. Blooms March-July.	No	**High:** Potentially suitable Mojavean desert scrub habitat is present within the project site; and this species was detected within adjacent parcels during rare plant surveys conducted during the 2023 blooming period.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Cryptantha clokeyi Clokey's cryptantha	1B.2 G3 S3	Annual herb. Lives in Mojavean desert scrub. Found at elevations ranging from 2,438 feet to 5,739 feet amsl. Blooms in April.	No	**Low:** Potentially suitable Mojavean desert scrub habitat is present within the project site; however, there are no CNDDB occurrence records within five miles of the project site.
Eriastrum rosamondense Rosamond eriastrum	1B.1 G1? S1?	Annual Herb. Occurs in chenopod scrub, vernal pools. Found at elevations ranging from 2,300 feet to 2,369 feet amsl. Blooms April-May.	No	**High**: Potentially suitable chenopod scrub habitat is present within the project site and this species has been detected within adjacent parcels during rare plant surveys conducted in May 2023.
Eriophyllum mohavense Barstow woolly sunflower	1B.2 G2 S2	Annual herb. Found in chenopod scrub, Mojavean desert scrub, and playas. Known elevations range from 1,985 to 4,232 feet amsl. Blooming period is March through May.	No	**Not Expected**: Suitable habitats preferred by this species are not present within the project site. Additionally, there are no occurrence records within five miles of the project site (CDFW 2024a).
Gilia interior inland gilia	4.3 G4 S4	Annual herb. Occurs in cismontane woodland, Joshua tree "woodland", Lower montane coniferous forest. Found at elevations ranging from 1,569 feet to 8,762 feet amsl. Blooms March-May.	No	**Not Expected:** Suitable Joshua tree woodland and cismontane woodland habitats preferred by this species are not present within the project site.
Gilia latiflora* ssp. *cuyamensis Cuyama gilia	4.3 G5?T4 S4	Annual herb. Grows in pinyon and juniper woodland. Found at elevations 36 feet to 7,003 feet amsl. Blooms April-June.	No	**Not Expected:** Suitable pinyon and juniper woodland habitats preferred by this species are not present within the project site.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Goodmania luteola golden goodmania	4.2 G3 S3	Annual Herb. Occurs in meadows and seeps, Mojavean desert scrub, playas, valley and foothill grassland. Found at elevations ranging from 165 feet to 7,148 feet amsl. Blooms April-August.	No	**High:** Potentially suitable Mojavean desert scrub habitat is present within the project site; and this species was detected within adjacent parcels during rare plant surveys conducted during the 2023 blooming period.
Loeflingia squarrosa* var. *artemisiarum sagebrush loeflingia	2B.2 G5T3 S2	Annual Herb. Occurs in desert dunes, Great Basin scrub, and Sonoran Desert scrub. Occurs at elevations 2,295 feet to 5,300 feet amsl. Blooms April-May.	No	**Not Expected:** Desert scrub habitat potentially suitable for this species is present within the project site. Although a record of this species occurs approximately 2.5 miles northeast of the project site, it is undated. A record from 2005 occurs approximately 8 miles southeast of the project site.
Lycium torreyi Torrey's box-thorn	4.2 G4G5 S3	Perennial shrub. Grows on sandy, rocky, washes, streambanks, desert valleys within Mojavean desert scrub and Sonoran Desert scrub habitats. Found at elevations ranging from -164 to 4,003 feet amsl. Blooming period is (January-February) March through June (September-November).	No	**Not Expected**: Although potentially suitable Mojavean desert scrub habitat occurs on-site, wash and streambank habitat is not present. Additionally, this species was not were identified during the literature review or field survey.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Monardella exilis Mojave monardella	4.2 G3? S3	Annual herb. Occurs in sandy soils within desert dunes, Mojavean desert scrub, Great Basin scrub, chenopod scrub, pinyon and juniper woodland, Joshua tree woodland, and lower montane habitats. Found at elevations ranging from 1970 feet to 7940 feet amsl. Blooms April-September.	No	**Low**: Potentially suitable habitats preferred by this species are present within the project site. Additionally, there are numerous records in the CNPS database from the Antelope Valley, although most are 40 plus years old. No CNDDB records of this species were identified during the literature search.
Muilla coronata Crowned muilla	4.2 G3 S3	Perennial bulbiferous herb. Occurs in Joshua tree woodland, pinyon and juniper woodland, Mojavean desert scrub, and chenopod scrub. Known elevations range from 2,200 to 6,430 feet amsl. Blooming period is March through April (May).	No	**Low**: Potentially suitable habitats preferred by this species are present within the project site. Additionally, there are numerous records in the CNPS database from the Antelope Valley, although most are nearly 30 and more years old. No CNDDB records of this species were identified during the literature search.
Opuntia basilaris* var. *brachyclada short-joint beavertail	1B.2 G5T3 S3	Perennial stem. Occurs in chaparral, Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland. Occurs at elevations 1,563 feet to 6,221 feet amsl. Blooms April to June.	No	**Not Expected:** Mojavean desert scrub habitat potentially suitable for this species occurs within the project site. However, as a succulent, this species would have been identifiable during the time of the field survey, but was not observed. Additionally, there are no CNDDB occurrence records within five miles of the project site.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Perideridia pringlei Adobe yampah	4.3 G4 S4	Perennial herb. Occurs in serpentine and clay soils within grassland hillsides and within seasonally wet sites. Also found in chaparral, cismontane woodland, pinyon and juniper woodland, and coastal scrub. Found at elevations ranging from 245 feet to 7645 feet amsl. Blooms April-June.	No	**Not Expected**: Suitable habitats preferred by this species are not present within the project site.
Puccinellia simplex California alkali grass	1B.2 G2 S2	Annual herb. Found on alkaline soils within chenopod scrub, meadows and seeps, valley and foothill grassland, and vernal pool habitat. Blooms March through May. Found at elevations ranging from 7 to 3,051 feet amsl.	No	**Not Expected**: Suitable habitats preferred by this species are not present within the project site. Five CNDDB occurrences records identified during the literature review are all from 1995 at Edwards Air Force Base, approximately ll 10 plus miles northeast of the project site.
Yucca brevifolia western Joshua tree	CSET	Perennial evergreen, found in flats, gentle slopes, mesas, typically on igneous substrate that is silty, loamy, or sandy. Occurs at elevations ranging from 748 feet to 7,544 feet amsl. Blooms March to June.	No	**Not Expected**: This species was not observed within the project site during the field survey.

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) Southern Coast Live Oak Riparian Forest **MCV (1995)** Coast Live Oak Series **NVCS (2009)** *Quercus agrifolia* Woodland Alliance	G4 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, California black oak (*Quercus kelloggii*), 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 does not occur within or adjacent to the project site**.**

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
CNDDB/Holland (1986) Southern Cottonwood Willow Riparian Forest **MCV (1995)** Fremont Cottonwood Series **NVCS (2009)** *Populus fremontii* Forest Alliance	G3 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 does not occur within or adjacent to the project site**.**
CNDDB/Holland (1986) Southern Riparian Scrub **MCV (1995)** N/A **NVCS (2009)** N/A	G3 S3.2	Riparian zones dominated by small trees or shrubs, lacking taller riparian trees.	No	**Absent:** This vegetation community does not occur within or adjacent to the project site**.**

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
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 does not occur within or adjacent to the project site**.**
CNDDB/Holland (1986) Wildflower Field **MCV (1995)** California annual grassland series **NVCS (2009)** Not treated	G2 S2.2	Occurs at elevations ranging from 0 to 1,000 feet amsl on all topographic locations. Soils are well drained, sandy to loamy, derived from many substrates, including serpentine, and often have high levels of bioturbation. These species: *Eschsolzia californica* (California poppy), *Lupinus nanus (*sky lupine), and/or another *Eschsolzia* species is characteristically abundant in the herbaceous layer with *Amsinckia menziesii (*Mensies' fiddleneck), *Avena barbata* (slender wild oat), *Bromus spp.*, *Chaenactis glabruiscula* (yellow pincushion), *Clarkia* spp.,, *Eriogonum* spp., *Erodium cicutarium* (redstem fillaree), *Hirschfeldis incana* (shortpod mustard), *Hypochaeris radicata* (flatweed), *Lotus purshianus* (American bird's-foot trefoil), *Lupinus biocolor* (miniature lupine), *Rumex salicifolius* (willow dock), *Salvia carduacea* (thistle sage) and *Vulpia myuros* (annual fescue). Emergent trees and shrubs may be present at low cover, including trees *Pinus sabiniana* (California foothill pine) and shrubs: *Eriogonum fasciculatum* (California buckwheat). Herbs are less than 0.5 feet; cover is intermittent to continuous.	No	**Absent:** This vegetation community does not occur within or adjacent to the project site**.**

Scientific Name Common Name	Special-Status Rank*	Habitat Preferences and Distribution Affinities	Observed On-site	Potential to Occur
CNDDB/Holland (1986) Valley Needlegrass Grassland **MCV (1995)** Foothill Needlegrass Series, Nodding Needlegrass Series, Purple Needlegrass Series **NVCS (2009)** *Nassella cernua* Herbaceous Alliance, *Nassella lepida* Herbaceous Alliance, *Nassella pulchra* Herbaceous Alliance	G3 S3.1	Occurs at elevations ranging from 0 to 5,577 feet amsl on all topographic locations. Soils may be deep with high clay content, loamy, sandy, or silty derived from mudstone, sandstone, or serpentine substrates. California melicgrass (*Melica californica*), Torrey melic (*Melica torreyana*), nodding needle grass (*Stipa cernua*), foothill needle grass (*Stipa lepida*) and/or purple needle grass (*Stipa pulchra*) is dominant or characteristically present in the herbaceous layer with other perennial grasses and herbs including spidergrass (*Aristida ternipes*), milkvetch (*Astragalus* spp.), wild oat (*Avena* spp.), bromes (*Bromus* spp.), fire reedgrass (*Calamagrostis koelerioides*), mariposa (*Calochortus* spp.), morning glory (*Calystegia* spp.), amole (*Chlorogalum pomeridianum*), clarkia (*Clarkia* spp.), common sandaster (*Corethrogyne filaginifolia*), turkey-mullein (*Croton setiger*), cryptantha (*Cryptantha* spp.), American wild carrot, (*Daucus pusillus*), blue dicks (*Dichelostemma capitatum*), blue wildrye (*Elymus glaucus*), buckwheat (*Eriogonum* spp.), erodium (*Erodium* spp.), California poppy (*Eschscholzia californica*), California fescue (*Festuca californica*), shortpod mustard (*Hirschfeldia incana*), narrow tarplant (*Holocarpha virgata*), meadow barley (*Hordeum brachyantherum*), June grass (*Koeleria macrantha*), goldfields (*Lasthenia* spp.), plantain (*Plantago* spp.), one sided blue grass (*Poa secunda*), sanicle (*Sanicula* spp.), western blue eyed grass (*Sisyrinchium bellum*), clover (*Trifolium* spp.) and/or fescue (*Vulpia* spp.). Emergent trees and shrubs may be present at low cover. Herbs are less than 3 feet; cover is open to continuous.	No	**Absent:** This vegetation community does not occur within or adjacent to the project site.

California Department of Fish and Wildlife (CDFW)

CSET Candidate State Endangered/Threatened – 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.

California Native Plant Society (CNPS) California Rare Plant Rank

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

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

3 Plant that lack the necessary information to assign them to one of the other ranks or to reject them.

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.

Table D-2. Special-Status Wildlife Species

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Accipiter cooperi 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, oaks, Douglas-firs, beeches, spruces for nesting. Common in open areas during nesting season.	No	**Low:** Potentially suitable foraging habitat is present within the project site; however, suitable nesting habitat is absent. This species may occur across the project site as a foraging or migrating transient.
Actinemys pallida southwestern pond turtle	SSC PFT G2G3 SNR	Found in ponds, lakes, rivers, streams, creeks, marshes, and irrigation ditches, with abundant vegetation, either rocky or muddy bottoms, in woodland, forest, and grassland. In streams, prefers pools to shallower areas. Logs, rocks, cattail mats, and exposed banks are required for basking. May enter brackish water and even seawater. Found at elevations from sea level to over 5,900 feet amsl.	No	**Not Expected**: Suitable habitats preferred by this species are not present within the project site.
Agelaius tricolor tricolored blackbird	SSC ST G1G2 S2	Year-round resident of freshwater marshes that requires open water, protected nesting substrate, and foraging area with insect prey within a few kilometers of the colony. Nest with cattails, bulrushes, and willows.	No	**Not Expected**: Suitable habitat preferred by this species iarenot present within the project site.
Aimophila ruficeps canescens southern California rufous-crowned sparrow	WL G5T3 S4	Inhabits dry, open hillsides covered with grasses, rocks, and scattered shrubs, including coastal sagebrush, open chaparral, scrub oaks, pinyon pine, and other wood plants. Dense woody growth is unsuitable. Found at elevations from sea level to 10,000 feet amsl.	No	**Not Expected**: Suitable habitats preferred by this species are not present within the project site.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Anniella pulchra Northern California legless lizard	SSC G3 S2S3	Inhabits moist warm soil with plant cover, needs moisture. Occurs in beach dunes, chapparal, pine-oak woodlands, desert scrub, sandy washes, stream terraces with sycamores (*Platanus* spp.), cottonwoods (*Populus* spp.), oaks (*Quercus* spp.).	No	**Not Expected**: Although CNDDB records of legless lizards have been recorded from approximately two miles southwest of the project site, suitable habitat preferred by this species is not present within the project site. The site lacks the plant cover and moist areas preferred by this species.
Anniella ssp. California legless lizard	SSC G3G4 S3S4	Resemble small snakes. Rarely found crawling in the open, except at night. Typically found under objects or leaves, often in gardens in southern California. Not commonly seen.	No	**Not Expected**: Suitable habitat preferred by this species is not present within the project site. The site lacks plant cover, leaf litter/debris, and/or moist areas preferred by this species. One CNDDB record of this species was identified during the literature review, from 10 plus miles south of the project site in the San Gabriel Mountains.
Aquila chrysaetos golden eagle	FP G5 S3	Yearlong resident of California. Occupies nearly all terrestrial habitats of the western states except densely forested areas. Favors secluded cliffs with overhanging ledges and large trees for nesting and cover. Hilly or mountainous country where takeoff and soaring are supported by updrafts is generally preferred to flat habitats. Deeply cut canyons rising to open mountain slopes and crags are ideal habitat.	No	**Low:** Desert scrub habitat potentially suitable for foraging by this species is present on the project site; however, nesting habitat is absesnt, and is generally absent from the Anteleope Valley. This species has low potential to occur as a migrating or foraging transient.
Arizona elegans occidentalis California glossy snake	SCE 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 preferred by this species is not present within the project site.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Artemisiospiza belli belli Bell's 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	**High**: Suitable habitat is present within the project site, and this species was detected within adjacent parcels by Michael Baker in 2023.
Asio flammeus short-eared owl	SSC G5 S3	Breeds over much of northern North America and is a year-round resident in certain areas within California. The breeding range of the short-eared owl retracts dramatically in drought conditions and during prey reductions. Nesting short-eared owls require open country that supports concentrations of microtine rodents and herbaceous cover sufficient to conceal their ground nests from predators. Suitable habitats may include salt- and freshwater marshes, irrigated alfalfa or grain fields, and ungrazed grasslands and old pastures.	No	**Not Expected**: Suitable habitat preferred by this species is not present within the project site.
Athene cunicularia burrowing owl	CSET G4 S2	Yearlong resident of California. Inhabit open, treeless areas with low, sparse vegetation, typically with sloping terrain. Habitats include grasslands, deserts, and steppe environments, but can also be found on golf courses. 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	**Low**: This species is known from the Antelope Valley region and relatively undisturbed desert scrub habitat occurs on-site. No individuals or sign of this species were observed during focused surveys across adjacent parcels conducted in 2023 by Michael Baker, However, with suitable habitat on-site and its known occurrence in the region, this species has low potential to occupy the site.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Bombus crotchii Crotch's bumble bee	CSET G2 S2	Found from coastal California east to the Sierra-Cascade crest and south into Mexico. Primarily occurs in California, including the Mediterranean region, Pacific coast, western desert, great valley, and adjacent foothills through most of southwestern California. Has also been recorded in Baja California, Baja California Sur, and in southwest Nevada. Inhabits open grassland and scrub habitats. Primarily nests underground. Food plant genera include *Antirrhinum*, *Phacelia*, *Clarkia*, *Dendromecon*, *Eschscholzia*, and *Eriogonum*.	No	**Low**: Potentially suitable habitat for this species may occur on-site with the presence of a few individual *Eriognum* sp. and other flowering plants. However, burrows and other overwintering or nesting habitat is limited. One CNDDB record from 2.5 miles south of the project site from 50 plus years ago was identified during the literature search. Additionally, this is the only CNDDB record of this species identified during the literature review for the project region. Two records were identified in iNaturalist from within the past five years and five miles of the site.
Branchienecta lynchi vernal pool fairy shrimp	FT G3 S3	Endemic to California and only found in vernal pools. Vernal pool habitats form in depressions above an impervious substrate layer, or claypan/duripan. This species does not occur in riverine, marine, or other permanent bodies of water. When the temporary pools dry, offspring persist in suspended development as desiccation-resistant embryos (commonly called cysts) in the pool substrate until the return of winter rains and appropriate temperatures allow some of the cysts to hatch.	No	**Not Expected:** Suitable habitats preferred by this species is not present within the project site.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Buteo regalis ferruginous hawk	WL G4 S3S4	Common winter resident of sandy herbaceous areas, usually in association with rocks or course gravel in southwestern California. Occurs mainly in arid coastal and desert border areas. Prefers open grasslands, low foothills. This species does not breed in California.	No	**Low:** Potentially suitable foraging habitat is present within the project site and a CNDDB record occurs approximately 2 mile east of the project site. This species does not breed in California. It may occur across the project site as a foraging or migrating transient.
Buteo swainsoni Swainson's hawk	ST G5 S4	Summer migrant in California. Forage in open habitats, alfalfa or suitable grain fields, pastures, native prairie, or grassland containing scattered, large trees. Require trees for nesting. Breeds in stands with few trees in juniper-sage flats, riparian areas, and oak savannah in the Central Valley.	No	**Low:** Potentially suitable foraging habitat is present within the project site and two CNDDB records occur approximately 2 and 4 miles northeast of the project site. Trees suitable for nesting are not present on-site and in the surrounding area and agricultural fields preferred by this species as foraging habitat is generally absent from within 5 miles of the project site. This species may occur across the project site as a foraging or migrating transient.
Charadrius montanus mountain plover	SSC G3 S2	Uncommon winter resident in southern California, primarily from September to mid-March, with peak numbers from December through February. At all seasons, mountain plovers are strongly associated with short-grass prairie habitats, or their equivalents, that are flat and nearly devoid of vegetation. Overall, it avoids high and dense cover. Within southern California, the largest numbers occur in grasslands and agricultural areas in the interior. Does not nest in California.	No	**Low:** Suitable habitat for this species is marginal within the project site; however a CNDDB record occurs approximately 4 miles north of the project site. preferred by this species. However, this species could cross the project site as a foraging or migrating transient

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Charadrius nivosus nivosus western snowy plover	SSC FT G3T3 S3	Occurs on sandy beaches, salt pond levees and along the shores of large alkali lakes. Breeding generally occurs above the high tide line on coastal beaches, sand spits, dune-backed beaches, sparsely vegetated dunes, beaches at creek and river mouths, and salt pans at lagoons and estuaries. Nests typically occur in flat, open areas with sandy or saline substrates; vegetation and driftwood are usually sparse or absent.	No	**Not Expected**: Suitable habitat preferred by this species is not present within the project site.
Circus hudsonius northern harrier	SSC G5 S3	Yearlong resident of California. Frequents meadows, grasslands, open rangelands, desert sinks, fresh and saltwater emergent wetlands; seldom found in wooded area. In general, it prefers saltwater marshes, wet meadows, sloughs, and bogs for nesting and foraging. Nests on the ground in shrubby vegetation or patches of dense vegetation, usually at the marsh edge.	No	**Low:** The project site generally does not contain suitable foraging or nesting habitat for this species. However, there are multiple CNDDB records within 5 miles of the project site. This species may occur across the project site to forage or as a transient.
Corynorhinus townsendii Townsend's big-eared bat	SSC G4 S2	Now considered uncommon in California. Details of its distribution are not well known. This species is found in all but subalpine and alpine habitats and may be found at any season throughout its range. Most abundant in mesic habitats. Requires caves, mines, tunnels, buildings, or other human-made structures for roosting.	No	**Not Expected:** Suitable roosting locations such as caves, mines, tunnels, or buildings are not present within the project site. Additionally, there are no known occurrences within five miles of the project site (CDFW 2023a).

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Danaus plexippus Monarch butterfly	FC G4T1T2Q S2	Aggregate in clusters in forested groves across the Pacific coast from Mendocino County to Baja California. Majority of overwintering sites are within 1.5 miles of the Pacific Ocean. Seek out dappled sunlight, high humidity, access to fresh water, and absence of freezing temperatures. Blue gum eucalyptus, Monterey pine, and Monterey cypress are commonly used for roosting. Arrive to overwinter in September and persist through January. After breeding, surviving monarchs disperse in February and March.	No	**Not Expected**: Suitable habitat for this species does not occur within the project site and there are no known wintering roosts within or near the project
Euphydryas Editha quino Quino checkerspot butterfly	FE G4G5T1T2 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**: Suitable habitat preferred by this species is not present within the project site.
Falco columbarius merlin	WL G5 S3S4	Inhabits open and semi open areas across North America. During winter migration, is found in open forests, grasslands, and coastal areas with flocks of small songbirds and shorebirds. This species does not breed in California.	No	**Moderate:** Potentially suitable foraging habitat for this species is present in the project site and multiple records occur within 5 miles of the project site (CDFW 2023a). This species does not breed in California. It may occur across the project site to forage or as a migrating transient.
Gopherus agrassizii desert tortoise	FT ST G3 S2S3	Occurs in the Mojave Desert north and west of the Colorado River in southeastern California. Spends majority of its life underground, lives in sandy flats, rocky foothills, alluvial fans, washes, canyons, where suitable soils for den construction.	No	**Not Expected**: The site provides marginally suitable habitat for this species. Additionally, there are no CNDDB occurrence records within 15 plus miles of the project site.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Gymnogyps californianus California condor	FE SE G1 S2	Current distribution of California condor is considered to be all of the Los Padres National Forest and western half of the Angeles National Forest (USDA Forest Service 2000), with some occasionally found in the Sequoia National Forest. Nest sites are typically located in chaparral, conifer forest, or oak woodland habitats. Nest sites are in cliff caves in the mountains. Some have nested in large cavities within sequoias *(Sequoiadendron giganteum*), up to 6,000 feet amsl.	No	**Not Expected**: Suitable habitats preferred by this species are not present within the project site. Additionally, no CNDDB records of this species were identified during the literature review.
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.	No	**Moderate:** Potentially suitable habitat and perches for this species are present in the project site and multiple CNDDB records occur within 5 miles of the project site.
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 habitats preferred by this species are not present within the project site. Additionally, there are no CNDDB occurrence records within five miles of the project site.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Phrynosoma blainvilli coast horned lizard	SSC G4 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**: Habitats preferred by this species are generally absent from the project site and the nearest CNDDB record is from approximately 7 miles to the southeast and is 60 plus years old.
Plegadis chihi white-faced ibis	WL G5 S3S4	Locally rare resident/migrant in southern California. Prefers to feed in fresh emergent wetland, shallow lacustrine waters, muddy ground of wet meadows, and irrigated or flooded pastures and croplands. Nests in dense, fresh emergent wetland.	No	**Not Expected**: Suitable habitats preferred by this species are not present within the project site.
Polioptila californica californica coastal California gnatcatcher	SSC FT G4G5TT3Q 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**: Suitable habitat preferred by this species is not present within the project site.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Rana draytonii California red-legged frog	SSC FT G3G3 S2S3	The species historically occurred in the San Gabriel Wilderness Area of the Angeles National Forest; there were no post-1970 observations in this area or nearby parts of the Angeles National Forest. In 1999, a population (estimated between 15 and 25 adults) was located on the Angeles National Forest in the San Francisquito drainage. 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 habitat preferred by this species is not present within the project site.
Taxidea taxus American badger	SSC G5 S3	Occupies a wide variety of habitats including dry, open grassland, sagebrush, and woodland habitats. 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	**Not Expected**: Suitable habitats preferred by this species are generally absent from the project site and no suitable burrows were observed during the field survey. Additionally, the nearest CNDDB record is undated and from 10 miles north of the project site.
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.

Scientific Name Common Name	**Special-Status Rank***	**Habitat Preferences and Distribution Affinities**	**Observed On-site**	**Potential to Occur**
Toxostoma lecontei Le Conte's thrasher	SSC G4 S3	Common yearlong resident in southern California. Typically occurs primarily in open desert wash, desert scrub, alkali desert scrub, and desert succulent shrub habitats; also occurs in Joshua tree habitat with scattered shrubs. Habitats with a high proportion of one or more species of saltbush (*Atriplex* spp.) and/or cylindrical cholla cactus (*Cylindropuntia* spp.) is preferred. The ground is generally bare or with sparse patches of grasses and annuals forming low ground cover. Prefers thick, dense, and thorny shrubs or cholla cactus for nesting.	No	**Not Expected:** The project site does not contain suitable foraging or nesting habitat preferred by this species. Additionally, there are no known CNDDB occurrence records within ten miles of the project site.
Vireo bellii pusillus least Bell's vireo	FE SE G5T2 S3	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**: The project site does not contain suitable foraging or nesting habitat preferred by this species.
Xerospermophilus mohavensis Mohave ground squirrel	ST G3 S2	Inhabits open desert scrub, alkali scrub and Joshua tree woodland. Restricted to Mojave Desert, feeds in annual grasslands. Prefers sandy to gravelly soils but avoids rocky areas. Nests in burrows and uses them at base of shrubs for cover.	No	**Not Expected**: Potentially suitable habitats preferred by this species may occur on-site; however, no individuals or sign of this species have been detected during field surveys conducted to date. Only two CNDDB records of this species were identified during the literature review and this species is likely extirpated from Los Angeles County.

*** 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 is currently designated a candidate for listing under the Endangered Species Act.

California Department of Fish and Wildlife (CDFW)

SE Endangered – any native species 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 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.

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.

CSET Candidate State Endangered/Threatened – 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.

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.