BIOLOGICAL TECHNICAL REPORT

FOR THE

AVENUE L-4 PROPERTY PROJECT

LOCATED IN THE CITY OF LANCASTER LOS ANGELES COUNTY, CALIFORNIA

Prepared For:

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February 10, 2023

INFORMATION SUMMARY

A. Report Date: February 10, 2023

B. Report Title: Biological Technical Report for Avenue L-4 Property Project, Located in the City of Lancaster, Los Angeles County, California

C. Project Site Location: The Project is located east of Interstate 14 in the City of Lancaster, Los Angeles County, California. The Project site is located south of West Avenue L, west of Sierra Highway, north of West Avenue L 4, and east of 8th Street West. The Project Site occurs within Section 34, Township 7 North, Range 12 West, as depicted on the USGS Lancaster West, California quadrangle. The Project Site is located at 34.657504 and -118.134730 (center reading).

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F. Report Summary:

This report describes the current biological conditions for the Avenue L-4 Property Project [Project] and evaluates impacts to biological resources from development of the Project.

The proposed 10.87-acre Project is located within Lancaster, Los Angeles County, California. Glenn Lukos Associates, Inc. (GLA) biologists/regulatory specialists conducted general biological surveys, vegetation mapping, habitat assessments, an evaluation for federal and state jurisdictional waters, and focused botanical surveys on June 17, 22, 24, July 11, and August 31, 2022, and focused burrowing owl (*Athene cunicularia*) surveys on June 17, 22, July 11, and August 31, 2022. In addition, a habitat assessment for Mohave ground squirrel was conducted on May 9, 10, and 11, 2022.

The proposed Project would not impact waters subject to the jurisdictions of the U.S. Army Corps of Engineers (Corps), Lahontan Regional Water Quality Control Board (Regional Board), or the California Department of Fish and Wildlife (CDFW).

G. Individuals Conducting Fieldwork:

Brinna Lee, Jillian Stephens, Amy Black, Stephanie Cashin, Jeff Ahrens, and Phil Brylski (Elanco).

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1.0 INTRODUCTION

1.1 Background and Scope of Work

This document provides the results of general biological surveys and focused biological surveys for the approximately 10.87-acre Avenue L-4 Property Project (Project) located in the City of Lancaster, Los Angeles County, California. This report identifies and evaluates impacts to biological resources associated with the proposed Project in the context of the California Environmental Quality Act (CEQA), and State and Federal regulations such as the federal Endangered Species Act (FESA), California Endangered Species Act (CESA), federal Clean Water Act (CWA), Porter-Cologne Water Quality Control Act, and the California Fish and Game Code.

The scope of this report includes a discussion of existing conditions for the approximately 10.87-acre Project site, all methods employed regarding the general and focused biological surveys, the documentation of botanical and wildlife resources identified (including special-status species), and an analysis of impacts to biological resources. Methods of the study include a review of relevant literature, field surveys, and a Geographical Information System (GIS)-based analysis of vegetation communities. As appropriate, this report is consistent with accepted scientific and technical standards and survey guideline requirements issued by the U.S. Fish and Wildlife Service (USFWS), the California Department of Fish and Wildlife (CDFW), the California Native Plant Society (CNPS), and other applicable agencies/organizations.

The field study focused on a number of primary objectives that would comply with CEQA requirements, including (1) general biological surveys and vegetation mapping; (2) habitat assessments for special-status plant species; and (3) habitat assessments and focused surveys for special-status wildlife species. Observations of all plant and wildlife species were recorded during the general biological surveys and are included as Appendix A: Floral Compendium and Appendix B: Faunal Compendium.

1.2 Project Location

The Project site comprises approximately 10.87 acres in the City of Lancaster, Los Angeles County, California [Exhibit 1 – Regional Map] and is located within Section 34, Township 7 North, Range 12 West of the Lancaster West, California U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map [Exhibit 2 – Vicinity Map]. The Project site is located south of West Avenue L, west of Sierra Highway, north of West Avenue L 4, and east of 8th Street West [Exhibit 3 – Aerial Map/Site Plan].

1.3 Project Description

The proposed Project consists of an industrial development, associated infrastructure, utilities, road extensions/widenings, and landscape areas.

2.0 METHODOLOGY

In order to adequately identify biological resources in accordance with the requirements of CEQA, Glenn Lukos Associates (GLA) assembled biological data consisting of three main components:

- Performance of a jurisdictional waters and wetlands evaluation;
- Performance of vegetation mapping for the Project site; and
- Performance of habitat assessments and site-specific biological surveys to evaluate the presence/absence of special-status species in accordance with the requirements of CEQA.

The focus of the biological surveys was determined through initial site reconnaissance, a review of the CNDDB (CDFW 2022), CNPS online inventory (CNPS 2022), Natural Resource Conservation Service (NRCS) soil data, other pertinent literature, and knowledge of the region. Site-specific general surveys within the Project site were conducted on foot in the proposed development areas for each target plant or animal species identified below.

Vegetation communities within the Project site were mapped according to A Manual of California Vegetation, Second Edition or MCVII, which is the California expression of the National Vegetation Classification. Plant communities were mapped in the field directly onto a 200-scale (1"=200') aerial photograph. All flora and fauna identified on site during vegetation mapping was included in floral and faunal compendia prepared for the Project.

2.1 Summary of Surveys

GLA conducted biological studies in order to identify and analyze actual or potential impacts to biological resources associated with development of the Project site. Observations of all plant and wildlife species were recorded during each of the above-mentioned survey efforts [Appendix A: Floral Compendium and Appendix B: Faunal Compendium]. The studies conducted include the following:

- Performance of general biological surveys;
- Performance of vegetation mapping;
- Performance of habitat assessments and site-specific biological surveys to evaluate the presence/absence of special-status species in accordance with the requirements of CEQA and federal and state regulations;
- Focused surveys/habitat assessments for special-status plants;
- Performance of focused surveys for burrowing owl;
- Performance of focused survey for desert tortoise; and
- Performance of a habitat assessment for Mohave ground squirrel.

Table 2-1 provides a summary list of survey dates, survey types and personnel.

Table 2-1. Summary of Biological Surveys for the Project Site

Survey Type	2022 Survey Dates	Biologists
General Biological Survey/Habitat Assessment	6/17 6/24	AB, BL SC, JA
Evaluation of Federal and State Jurisdictional Waters	6/22	JS, BL
Focused Surveys/Habitat Assessment for Rare Plants	7/11, 8/31	JS, BL
Vegetation Mapping	7/11	JS, BL
Focused Burrowing Owl Surveys	6/17, 6/22 7/11, 8/31	BL JS
Focused Desert Tortoise Surveys	6/24	SC, JA
Mohave Ground Squirrel Habitat Assessment	5/9, 5/10, 5/11	PB

JS = Jillian Stephens, BL = Brinna Lee, AB = Amy Black, SC = Stephanie Cashin, JA = Jeff Ahrens, PB = Phil Brylski (Elanco)

Individual plants and wildlife species are evaluated in this report based on their "special-status." For the purpose of this report, plants were considered "special-status" based on one or more of the following criteria:

- Listing through FESA and/or CESA;
- Occurrence in the CNPS Rare Plant Inventory (Rank 1A/1B, 2A/2B, 3, or 4); and/or
- Occurrence in the CNDDB inventory.

Wildlife species were considered "special-status" based on one or more of the following criteria:

- Listing through the FESA and/or CESA; and
- Designation by the State as a Species of Special Concern (SSC) or California Fully Protected (CFP) species.

Vegetation communities and habitats were considered of "special status" based on their occurrence in the CNDDB inventory.

2.2 Botanical Resources

A site-specific habitat assessment and survey program was designed to accurately document the botanical resources within the Project site, and consisted of five components: (1) a literature search; (2) preparation of a list of target special-status plant species and sensitive vegetation communities that could occur within the Project site; (3) general field reconnaissance surveys; (4) vegetation mapping according to MCVII; and (5) habitat assessments and focused surveys for special-status plants.

2.2.1 Literature Search

Prior to conducting fieldwork, pertinent literature on the flora of the region was examined. A thorough archival review was conducted using available literature and other historical records. These resources included the following:

- California Native Plant Society, Rare Plant Program. Inventory of Rare and Endangered Plants of California (online edition, v9-01 1.5; CNPS 2022); and
- CNDDB for the USGS 7.5′ Lancaster West and surrounding quadrangles (CNDDB 2022).

2.2.2 Vegetation Mapping

Vegetation communities within the Project site were mapped according to MCVII. Deviations in nomenclature were made when existing habitat descriptions did not accurately characterize the vegetation communities present. As such, certain vegetation communities were named based on the dominant plant species present. Plant communities were mapped in the field directly onto a 200-scale (1"=200') aerial photograph. A vegetation map is included as Exhibit 4. Representative site photographs are included as Exhibit 5.

2.2.3 Special-Status Plant Species and Habitats Evaluated for the Project Site

A literature search was conducted to obtain a list of special status plants with the potential to occur within the Project site. The CNDDB was initially consulted to determine well-known occurrences of plants and habitats of special concern in the region. Other sources used to develop a list of target species for the survey program included the CNPS online inventory (2022).

Based on this information, vegetation profiles and a list of target sensitive plant species and habitats that could occur within the Project site were developed and incorporated into a mapping and survey program to achieve the following goals: (1) characterize the vegetation associations and land use; (2) prepare a detailed floristic compendium; (3) identify the potential for any special status plants that may occur within the Project site; and (4) prepare a map showing the distribution of any sensitive botanical resources associated with the Project site, if applicable.

2.2.4 Botanical Surveys

GLA biologists Jillian Stephens and Brinna Lee visited the site on July 11 and August 31, 2022, to conduct general and focused plant surveys. Surveys were conducted in accordance with accepted botanical survey guidelines (Nelson 1984, USFWS 2000, CNPS 2001, CDFW 2018) with the understanding that follow-up surveys for annual species should be conducted at appropriate times based on precipitation and flowering periods. An aerial photograph, a soils map (Exhibit 6), and/or a topographic map were used to determine the community types and other physical features that may support sensitive and uncommon taxa or communities within the Project site. Surveys were conducted by following meandering transects within target areas of suitable habitat. All plant species encountered during the field surveys were identified and

recorded following the above-referenced guidelines a. A complete list of the plant species observed is provided in Appendix A. Scientific nomenclature and common names used in this report follow Baldwin et al (2012), and Munz (1974).

As part of the surveys conducted for the Project site, GLA biologists Jillian Stephens and Brinna Lee performed an inventory survey of all Joshua tree individuals on August 31, 2022. Each Joshua tree was mapped and given a specific identifying number. Data was collected for each tree, including height and canopy measurements, and a health rating assessment. The health rating was based on the appearance of the tree, including the presence of dead branches and/or damage to the tree. Trees were placed in one of the following five health rating categories based on the percentage of living branches: Very Good (greater than 75%), Average (60% to 75%), Poor (45% to 60%), Very Poor (less than 45%) and Dead (0%).

2.3 Wildlife Resources

Wildlife species were evaluated and detected during field surveys by sight, call, tracks, and scat. Site reconnaissance was conducted in such a manner as to allow inspection of the entire Project site by direct observation, including the use of binoculars. Observations of physical evidence and direct sightings of wildlife were recorded in field notes during the visit. A complete list of wildlife species observed within the Project site is provided in Appendix B. Scientific nomenclature and common names for vertebrate species referred to in this report follow the Complete List of Amphibian, Reptile, Bird, and Mammal Species in California (CDFG 2016), Standard Common and Scientific Names for North American Amphibians, Turtles, Reptiles, and Crocodilians 6th Edition, Collins and Taggert (2009) for amphibians and reptiles, and the American Ornithologists' Union Online Checklist (2022) for birds. The methodology (including any applicable survey protocols) utilized to conduct general surveys, habitat assessments, and/or focused surveys for special-status animals are included below.

2.3.1 General Surveys

Birds

During the general biological and reconnaissance survey within the Project site, birds were detected incidentally by direct observation and/or by vocalizations, with identifications recorded in field notes.

Mammals

During general biological and reconnaissance survey within the Project site, mammals were identified and detected incidentally by direct observations and/or by the presence of diagnostic sign (i.e., tracks, burrows, scat, etc.).

Reptiles and Amphibians

During general biological and reconnaissance surveys within the Project site, reptiles and amphibians were identified incidentally during surveys. Habitats were examined for diagnostic

reptile sign, which include shed skins, scat, tracks, snake prints, and lizard tail drag marks. All reptiles and amphibian species observed, as well as diagnostic sign, were recorded in field notes.

2.3.2 Special-Status Animal Species Reviewed

A literature search was conducted in order to obtain a list of special-status wildlife species with the potential to occur within the Project site. Species were evaluated based on two factors: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the Project site, and 2) any other special-status animals that are known to occur within the vicinity of the Project site, or for which potentially suitable habitat occurs on the Project site.

2.3.3 Habitat Assessment for Special Status Animal Species

GLA biologists Amy Black, Jillian Stephens, Brinna Lee, Jeff Ahrens, and Stephanie Cashin conducted habitat assessments for special-status animal species on June 17 and 24, 2022. A focused habitat assessment for Mohave ground squirrel was conducted by permitted biologist Phil Brylski (Elanco) on May 9, 10, and 11, 2022 (Appendix C). An aerial photograph, soil map and/or topographic map were used to determine the community types and other physical features that may support special-status and uncommon taxa within the Project site.

2.3.4 Focused Surveys for Special-Status Animals Species

Burrowing Owl

GLA biologists Brinna Lee, Amy Black, and Jillian Stephens conducted focused surveys for the burrowing owl (*Athene cunicularia*) for all suitable habitat areas within the Project site. Surveys were conducted in accordance with survey guidelines described in the 2012 CDFW Staff Report on Burrowing Owl Mitigation, with the acknowledgment that multiple survey visits were conducted outside of the protocol-prescribed date range. The guidelines stipulate that four focused survey visits should be conducted between February 15 and July 15, with the first visit occurring between February 15 and April 15. The remaining three visits should be conducted three weeks apart from each other, with at least one visit occurring between June 15 and July 15. Because the surveys were conducted outside of the date range from the Staff Report guidelines, it is recommended that a follow-up breeding season survey is conducted within the protocol-prescribed date range.

Focused surveys were conducted on June 17 and 22, July 11, and August 31, 2022. As recommended by the survey guidelines, the survey visits were conducted between morning civil twilight and 10:00 AM. Weather conditions during the surveys were conducive to a high level of bird activity. Surveys were conducted by walking meandering transects throughout areas of suitable habitat. Transects were spaced between 7 m and 20 m apart, adjusting for vegetation height and density, in order to provide adequate visual coverage of the survey areas. At the start of each transect, and at least every 100 m along transects, the survey area was scanned for burrowing owls using binoculars. All suitable burrows were inspected for diagnostic owl sign (e.g., pellets, prey remains, whitewash, feathers, bones, and/or decoration) in order to identify potentially occupied burrows. Exhibit 7 provides locations of suitable burrows mapped during

the transect surveys. Table 2-2 summarizes the burrowing owl survey visits. The results of the burrowing owl surveys are documented in Section 4.0 of this report.

Table 2-2. Summary of Burrowing Owl Surveys

Survey Date	Biologist	Start/End Time	Start/End Temperature (F)	Wind Speed (mph)	Weather Conditions
6/17/22	BL	0543-0750	63-67	1-8	Clear
6/22/22	BL	0630-0830	67-68	6-7	Overcast
7/11/22	JS	0700-0815	71-79	0-2	Clear
8/31/22	JS	0745-0836	76-83	0-1	Clear

Desert Tortoise

GLA biologists Stephanie Cashin and Jeff Ahrens conducted focused surveys for the desert tortoise (*Gopherus agassizii*) for all suitable habitat areas within the Project site. Surveys were conducted in accordance with survey guidelines for "small project areas" (less than 500 acres) described in the 2010 and 2018 USFWS Mojave Desert Tortoise Pre-project Survey Protocol.

Surveys were conducted by walking meandering 10 m wide belt transects adjusting for vegetation height and density, in order to provide adequate visual coverage of the Action Area, which is defined to be any lands subject to ground-disturbing activities associated with the Project and coincides with the Project footprint for the purposes of this report. The survey guidelines limit individual biologists to surveying a maximum of 80 acres per day. All suitable habitat was inspected for diagnostic tortoise sign (e.g., live tortoises, shell, bones, scutes, limbs, scats, burrows, pallets, tracks, eggshell fragments, courtship rings, drinking sites, mineral licks, etc.) in order to identify potential tortoise impacts. No tortoise sign was detected or mapped during the transect surveys. Table 2-3 summarizes the desert tortoise survey visits. The results of the desert tortoise surveys are documented in Section 4.0 of this report.

Table 2-3 summarizes the desert tortoise visit. The results of the desert tortoise survey are documented in Section 4.0 of this report.

Table 2-3. Summary of Desert Tortoise Survey

Survey Date	Biologist	Start/End Time	Start/End Temperature (F)	Wind Speed (mph)	Weather Conditions
6/24/22	SC, JA	0700-0815	72-80	2-4	Clear

Mojave Ground Squirrel

Phil Brylski, who holds a Memorandum of Understanding (MOU) with CDFW for trapping of MGS conducted a habit assessment for the Project site on May 9, 10, and 11, 2022. The habitat assessment included physically walking the entirety of the Project site to examine the soil, vegetation, topographic features, and disturbance levels to assess the suitability of habitat for

MGS on the Project site. Additionally, as part of the assessment, a literature search focusing on records of known MGS populations within the vicinity of the Project site was also conducted. The results of the MGS Habitat Assessment are attached as Appendix C.

2.4 Jurisdictional Evaluation

A desktop preview of the Project site as well as past historic aerial photography, was performed prior to the site visit. On June 22, 2022, GLA biologists Brinna Lee and Jillian Stephens performed a Project site visit to evaluate the presence of potential jurisdictional waters and wetlands regulated under the Corps pursuant to Section 404 of the CWA, the CDFW pursuant to Section 1602 of the Fish and Game Code, and the Regional Board pursuant to Section 401 of the CWA and/or Section 13260 of the CWC (the Porter-Cologne Water Quality Control Act). The evaluation focused on the presence/absence of drainage features exhibiting characteristics of an Ordinary High Water Mark (OHWM) and/or surface flow resulting in bed and bank feature.

3.0 REGULATORY SETTING

The proposed Project is subject to state and federal regulations associated with a number of regulatory programs. These programs often overlap and were developed to protect natural resources, including state and federally listed plants and animals; aquatic resources including rivers and creeks, ephemeral streambeds, wetlands, and areas of riparian habitat; other special-status species which are not listed as threatened or endangered by the state or federal governments; and other special-status vegetation communities.

3.1 State and/or Federally Listed Plants or Animals

3.1.1 State of California Endangered Species Act

California's Endangered Species Act (CESA) defines an endangered species as "a native species or subspecies of a 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." The State defines a threatened species as "a native species or subspecies of a 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 by this chapter. Any animal determined by the commission as rare on or before January 1, 1985 is a threatened species." Candidate species are defined as "a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the commission has formally noticed as being under review by the department for addition to either the list of endangered species or the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to either list." Candidate species may be afforded temporary protection as though they were already listed as threatened or endangered at the discretion of the Fish and Game Commission. Unlike the Federal Endangered Species Act (FESA), CESA does not list invertebrate species.

Article 3, Sections 2080 through 2085, of the CESA addresses the taking of threatened, endangered, or candidate species by stating "No person shall import into this state, export out of this state, or take, possess, purchase, or sell within this state, any species, or any part or product thereof, that the commission determines to be an endangered species or a threatened species, or attempt any of those acts, except as otherwise provided." Under the CESA, "take" is defined as "hunt, pursue, catch, capture, or kill, or attempt to hunt, pursue, catch, capture, or kill." Exceptions authorized by the state to allow "take" require permits or memoranda of understanding and can be authorized for endangered species, threatened species, or candidate species for scientific, educational, or management purposes and for take incidental to otherwise lawful activities. Section 1913 of the California Fish and Game Code provide that notification is required prior to disturbance.

3.1.2 Federal Endangered Species Act

The FESA of 1973 defines an endangered species as "any species that is in danger of extinction throughout all or a significant portion of its range." A threatened species is defined as "any species that is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range." Under provisions of Section 9(a)(1)(B) of the FESA it is unlawful to "take" any listed species. "Take" is defined in Section 3(18) of FESA: "...harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct." Further, the USFWS, through regulation, has interpreted the terms "harm" and "harass" to include certain types of habitat modification that result in injury to, or death of species as forms of "take." These interpretations, however, are generally considered and applied on a case-by-case basis and often vary from species to species. In a case where a property owner seeks permission from a federal agency for an action that could affect a federally listed plant and animal species, the property owner and agency are required to consult with USFWS. Section 9(a)(2)(b) of the FESA addresses the protections afforded to listed plants.

3.1.3 State and Federal Take Authorizations for Listed Species

Federal or state authorizations of impacts to or incidental take of a listed species by a private individual or other private entity would be granted in one of the following ways:

- Section 7 of the FESA stipulates that any federal action that may affect a species listed as threatened or endangered requires a formal consultation with USFWS to ensure that the action is not likely to jeopardize the continued existence of the listed species or result in destruction or adverse modification of designated critical habitat. 16 U.S.C. 1536(a)(2).
- In 1982, the FESA was amended to give private landowners the ability to develop Habitat Conservation Plans (HCP) pursuant to Section 10(a) of the FESA. Upon development of an HCP, the USFWS can issue incidental take permits for listed species where the HCP specifies at minimum, the following: (1) the level of impact that will result from the taking, (2) steps that will minimize and mitigate the impacts, (3) funding necessary to implement the plan, (4) alternative actions to the taking considered by the applicant and the reasons why such alternatives were not chosen, and (5) such other measures that the Secretary of the Interior may require as being necessary or appropriate for the plan.

- In certain circumstances, Section 2080.1 of the California Fish and Game Code allows CDFW to adopt the federal incidental take statement or the 10(a) permit as its own based on its findings that the federal permit adequately protects the species under state law.

3.2 California Environmental Quality Act

3.2.1 CEQA Guidelines Section 15380

CEQA requires evaluation of a project's impacts on biological resources and provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts. Sections 5.1.1 and 5.2.2 below set forth these thresholds and guidelines. Furthermore, pursuant to the CEQA Guidelines Section 15380, CEQA provides protection for non-listed species that could potentially meet the criteria for state listing. For plants, CDFW recognizes that plants with a California Rare Plant Rank (CRPR) of 1A, 1B, 2A or 2B of the CNPS *Inventory of Rare and Endangered Plants in California* may meet the criteria for listing and should be considered under CEQA. CDFW also recommends protection of regionally important plants , such as locally rare species, disjunct populations of more common plants, or plants with a CRPR of 3 or 4.

3.2.2 Special-Status Plants, Wildlife and Vegetation Communities Evaluated Under CEQA

Federally Designated Special-Status Species

Within recent years, the USFWS instituted changes in the listing status of candidate species. Former C1 (candidate) species are now referred to simply as candidate species and represent the only candidates for listing. Former C2 species (for which the USFWS had insufficient evidence to warrant listing) and C3 species (either extinct, no longer a valid taxon or more abundant than was formerly believed) are no longer considered as candidate species. Therefore, these species are no longer maintained in list form by the USFWS, nor are they formally protected. This term is employed in this document, but carries no official protections. All references to federally protected species in this report (whether listed, proposed for listing, or candidate) include the most current published status or candidate category to which each species has been assigned by USFWS.

For this report the following acronyms are used for federal special-status species:

- FE Federally listed as Endangered
- FT Federally listed as Threatened
- FPE Federally proposed for listing as Endangered
- FPT Federally proposed for listing as Threatened
- FC Federal Candidate Species (former C1 species)
- FSC Federal Species of Concern (former C2 species)

State-Designated Special-Status Species

Some mammals and birds are protected by the state as Fully Protected (SFP) Mammals or Fully Protected Birds, as described in the California Fish and Game Code, Sections 4700 and 3511, respectively. California SSC are designated as vulnerable to extinction due to declining population levels, limited ranges, and/or continuing threats. This list is primarily a working document for the CDFW's CNDDB project. Informally listed taxa are not protected, but warrant consideration in the preparation of biotic assessments. For some species, the CNDDB is only concerned with specific portions of the life history, such as roosts, rookeries, or nest sites.

For this report the following acronyms are used for State special-status species:

- SE State-listed as Endangered
- ST State-listed as Threatened
- SR State-listed as Rare
- SCE State Candidate for listing as Endangered
- SCT State Candidate for listing as Threatened
- SFP State Fully Protected
- SSC State Species of Special Concern

California Native Plant Society

CNPS is a private plant conservation organization dedicated to the monitoring and protection of sensitive species in California. The CNPS Ninth Edition Inventory of Rare and Endangered Plants of California categorizes plants of interest into six California Rare Plant Ranks (CRPR) based on their geographic distribution and potential threats to existing populations. The CNPS Inventory is used by CDFW as the candidate species list for plants that may be listed as state threatened and endangered. The six categories of rarity are summarized in Table 3-

Table 3-1. California Rare Plant Ranks 1, 2, 3, & 4, and Threat Code Extensions

CNPS Rank	Comments
Rank 1A – Plants Presumed Extirpated in California and Either Rare or Extinct Elsewhere	Thought to be extinct in California based on a lack of observation or detection for many years.
Rank 1B – Plants Rare, Threatened, or Endangered in California and Elsewhere	Species, which are generally rare throughout their range that are also judged to be vulnerable to other threats such as declining habitat.
Rank 2A – Plants presumed Extirpated in California, But Common Elsewhere	Species that are presumed extinct in California but more common outside of California
Rank 2B – Plants Rare, Threatened or Endangered in California, But More Common Elsewhere	Species that are rare in California but more common outside of California

Rank 3 – Plants About Which More Information Is Needed (A Review List)	Species that are thought to be rare or in decline but CNPS lacks the information needed to assign to the appropriate list. In most instances, the extent of surveys for these species is not sufficient to allow CNPS to accurately assess whether these species should be assigned to a specific rank. In addition, many of the Rank 3 species have associated taxonomic problems such that the validity of their current taxonomy is unclear.
Rank 4 – Plants of Limited Distribution (A Watch List)	Species that are currently thought to be limited in distribution or range whose vulnerability or susceptibility to threat is currently low. In some cases, as noted above for Rank 3 species, CNPS lacks survey data to accurately determine status in California. Many species have been placed on Rank 4 in previous editions of the "Inventory" and have been removed as survey data has indicated that the species are more common than previously thought. CNPS recommends that species currently included on this list should be monitored to ensure that future substantial declines are minimized.
Extension	**Comments**
.1 – Seriously endangered in California	Species with over 80% of occurrences threatened and/or have a high degree and immediacy of threat.
.2 – Fairly endangered in California	Species with 20-80% of occurrences threatened.
.3 – Not very endangered in California	Species with <20% of occurrences threatened or with no current threats known.

3.3 Jurisdictional Waters

3.3.1 Army Corps of Engineers

Pursuant to Section 404 of the Clean Water Act, the Corps regulates the discharge of dredged and/or fill material into waters of the United States. The term "waters of the United States" is defined in Corps regulations at 33 CFR Part 328.3(a) as:

> *(1) All waters which are currently used, or were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;*
> *(2) All interstate waters including interstate wetlands;*
> *(3) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds, the use, degradation or destruction of which could affect foreign commerce including any such waters:*
> *(i) Which are or could be used by interstate or foreign travelers for recreational or other purposes; or*
> *(ii) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or*
> *(iii) Which are used or could be used for industrial purpose by industries in interstate commerce...*
> *(4) All impoundments of waters otherwise defined as waters of the United States under the definition;*

(5) Tributaries of waters identified in paragraphs (a) (1)-(4) of this section;
(6) The territorial seas;
(7) Wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) (1)-(6) of this section.
(8) Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA (other than cooling ponds as defined in 40 CFR 123.11(m) which also meet the criteria of this definition) are not waters of the United States.

In the absence of wetlands, the limits of Corps jurisdiction in non-tidal waters, such as intermittent streams, extend to the OHWM which is defined at 33 CFR 328.3(e) as:

...that line on the shore established by the fluctuation of water and indicated by physical characteristics such as clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

Wetland Definition Pursuant to Section 404 of the Clean Water Act

The term “wetlands” (a subset of “waters of the United States”) is defined at 33 CFR 328.3(b) as "those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support...a prevalence of vegetation typically adapted for life in saturated soil conditions." In 1987 the Corps published the Wetland Manual to guide its field personnel in determining jurisdictional wetland boundaries. The methodology set forth in the Wetland Manual and the Arid West Supplement generally require that, in order to be considered a wetland, the vegetation, soils, and hydrology of an area exhibit at least minimal hydric characteristics. While the Wetland Manual and Arid West Supplement provide great detail in methodology and allow for varying special conditions, a wetland should normally meet each of the following three criteria:

- More than 50 percent of the dominant plant species at the site must be hydrophytic in nature as published in the most current national wetland plant list;

- Soils must exhibit physical and/or chemical characteristics indicative of permanent or periodic saturation (e.g., a gleyed color, or mottles with a matrix of low chroma indicating a relatively consistent fluctuation between aerobic and anaerobic conditions); and

- Whereas the Wetland Manual requires that hydrologic characteristics indicate that the ground is saturated to within 12 inches of the surface for at least five percent of the growing season during a normal rainfall year, the Arid West Supplement does not include

a quantitative criteria with the exception for areas with "problematic hydrophytic vegetation", which require a minimum of 14 days of ponding to be considered a wetland.

Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.

Pursuant to Article I, Section 8 of the U.S. Constitution, federal regulatory authority extends only to activities that affect interstate commerce. In the early 1980s the Corps interpreted the interstate commerce requirement in a manner that restricted Corps jurisdiction on isolated (intrastate) waters. On September 12, 1985, the U.S. Environmental Protection Agency (EPA) asserted that Corps jurisdiction extended to isolated waters that are used or could be used by migratory birds or endangered species, and the definition of "waters of the United States" in Corps regulations was modified as quoted above from 33 CFR 328.3(a).

On January 9, 2001, the Supreme Court of the United States issued a ruling on *Solid Waste Agency of Northern Cook County v. United States Army Corps of Engineers, et al.* (SWANCC). In this case the Court was asked whether use of an isolated, intrastate pond by migratory birds is a sufficient interstate commerce connection to bring the pond into federal jurisdiction of Section 404 of the Clean Water Act.

The written opinion notes that the court's previous support of the Corps' expansion of jurisdiction beyond navigable waters (*United States v. Riverside Bayview Homes, Inc.*) was for a wetland that abutted a navigable water and that the court did not express any opinion on the question of the authority of the Corps to regulate wetlands that are not adjacent to bodies of open water. The current opinion goes on to state:

> *In order to rule for the respondents here, we would have to hold that the jurisdiction of the Corps extends to ponds that are not adjacent to open water. We conclude that the text of the statute will not allow this.*

Therefore, we believe that the court's opinion goes beyond the migratory bird issue and says that no isolated, intrastate water is subject to the provisions of Section 404(a) of the Clean Water Act (regardless of any interstate commerce connection). However, the Corps and EPA have issued a joint memorandum which states that they are interpreting the ruling to address only the migratory bird issue and leaving the other interstate commerce clause nexuses intact.

Rapanos v. United States and Carabell v. United States

On June 5, 2007, the EPA and Corps issued joint guidance that addresses the scope of jurisdiction pursuant to the Clean Water Act in light of the Supreme Court's decision in the consolidated cases *Rapanos v. United States* and *Carabell v. United States* ("Rapanos"). The chart below was provided in the joint EPA/Corps guidance.

For sites that include waters other than Traditional Navigable Waters (TNWs) and/or their adjacent wetlands or Relatively Permanent Waters (RPWs) tributary to TNWs and/or their adjacent wetlands, as set forth below, the Corps must apply the "significant nexus" standard.

For "isolated" waters or wetlands, the joint guidance also requires an evaluation by the Corps and EPA to determine whether other interstate commerce clause nexuses, not addressed in the SWANCC decision are associated with isolated features on project sites for which a jurisdictional determination is being sought from the Corps.

The Corps and EPA will assert jurisdiction over the following waters:

- Traditional navigable waters.
- Wetlands adjacent to traditional navigable waters.
- Non-navigable tributaries of traditional navigable waters that are relatively permanent where the tributaries typically flow year-round or have continuous flow at least seasonally (e.g., typically three months).
- Wetlands that directly abut such tributaries.

The Corps and EPA will decide jurisdiction over the following waters based on a fact-specific analysis to determine whether they have a significant nexus with a TNW:

- Non-navigable tributaries that are not relatively permanent.
- Wetlands adjacent to non-navigable tributaries that are not relatively permanent.
- Wetlands adjacent to but that do not directly abut a relatively permanent non-navigable tributary.

The agencies generally will not assert jurisdiction over the following features:

- Swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent or short duration flow).
- Ditches (including roadside ditches) excavated wholly in and draining only uplands and that do not carry a relatively permanent flow of water.

The agencies will apply the significant nexus standard as follows:

- A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by all wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical and biological integrity of downstream traditional navigable waters.
- Significant nexus includes consideration of hydrologic and ecologic factors.

3.3.2 Regional Water Quality Control Board

The State Water Resource Control Board and each of its nine Regional Boards regulate the discharge of waste (dredged or fill material) into waters of the United States[1] and waters of the

[1] Therefore, wetlands that meet the current definition, or any historic definition, of waters of the U.S. are waters of the state. In 2000, the State Water Resources Control Board determined that all waters of the U.S. are also waters of the state by regulation, prior to any regulatory or judicial limitations on the federal definition of waters of the U.S. (California Code or Regulations title 23, section 3831(w)). This regulation has remained in effect despite subsequent changes to the federal definition. Therefore, waters of the state includes features that have been determined by the U.S. Environmental Protection Agency (U.S. EPA) or the U.S. Army Corps of Engineers (Corps) to be "waters of

State. Waters of the United States are defined above in Section II.A and waters of the State are defined as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code 13050[e]).

Section 401 of the CWA requires certification for any federal permit or license authorizing impacts to waters of the U.S. (i.e., waters that are within federal jurisdiction), such as Section 404 of the CWA and Section 10 of the Safe Rivers and Harbors Act, to ensure that the impacts do not violate state water quality standards. When a project could impact waters outside of federal jurisdiction, the Regional Board has the authority under the Porter-Cologne Water Quality Control Act to issue Waste Discharge Requirements (WDRs) to ensure that impacts do not violate state water quality standards. Clean Water Act Section 401 Water Quality Certifications, WDRs, and waivers of WDRs are also referred to as orders or permits.

State Wetland Definition

The State Board Wetland Definition and Procedures define an area as wetland as follows: *An area is wetland if, under normal circumstances, (1) the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; (2) the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and (3) the area's vegetation is dominated by hydrophytes or the area lacks vegetation.*

The following wetlands are waters of the State:

1. *Natural wetlands;*
2. *Wetlands created by modification of a surface water of the state;*[2] *and*
3. *Artificial wetlands*[3] *that meet any of the following criteria:*

    a. Approved by an agency as compensatory mitigation for impacts to other waters of the state, except where the approving agency explicitly identifies the mitigation as being of limited duration;
    b. Specifically identified in a water quality control plan as a wetland or other water of the state;
    c. Resulted from historic human activity, is not subject to ongoing operation and maintenance, and has become a relatively permanent part of the natural landscape; or
    d. Greater than or equal to one acre in size, unless the artificial wetland was constructed, and is currently used and maintained, primarily for one or more of

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the U.S." in an approved jurisdictional determination; "waters of the U.S." identified in an aquatic resource report verified by the Corps upon which a permitting decision was based; and features that are consistent with any current or historic final judicial interpretation of "waters of the U.S." or any current or historic federal regulation defining "waters of the U.S." under the federal Clean Water Act.

[2] "Created by modification of a surface water of the state" means that the wetland that is being evaluated was created by modifying an area that was a surface water of the state at the time of such modification. It does not include a wetland that is created in a location where a water of the state had existed historically, but had already been completely eliminated at some time prior to the creation of the wetland. The wetland being evaluated does not become a water of the state due solely to a diversion of water from a different water of the state.

[3] Artificial wetlands are wetlands that result from human activity.

the following purposes (i.e., the following artificial wetlands are not waters of the state unless they also satisfy the criteria set forth in 2, 3a, or 3b):

i. Industrial or municipal wastewater treatment or disposal,
ii. Settling of sediment,
iii. Detention, retention, infiltration, or treatment of stormwater runoff and other pollutants or runoff subject to regulation under a municipal, construction, or industrial stormwater permitting program,
iv. Treatment of surface waters,
v. Agricultural crop irrigation or stock watering,
vi. Fire suppression,
vii. Industrial processing or cooling,
viii. Active surface mining – even if the site is managed for interim wetlands functions and values,
ix. Log storage,
x. Treatment, storage, or distribution of recycled water, or
xi. Maximizing groundwater recharge (this does not include wetlands that have incidental groundwater recharge benefits); or
xii. Fields flooded for rice growing.[4]

All artificial wetlands that are less than an acre in size and do not satisfy the criteria set forth in 2, 3.a, 3.b, or 3.c are not waters of the state. If an aquatic feature meets the wetland definition, the burden is on the applicant to demonstrate that the wetland is not a water of the state.

3.3.3 California Department of Fish and Wildlife

Pursuant to Division 2, Chapter 6, Sections 1600-1603 of the California Fish and Game Code, the CDFW regulates all diversions, obstructions, or changes to the natural flow or bed, channel, or bank of any river, stream, or lake, which supports fish or wildlife.

CDFW defines a stream (including creeks and rivers) as "a body of water that flows at least periodically or intermittently through a bed or channel having banks and supports fish or other aquatic life. This includes watercourses having surface or subsurface flow that supports or has supported riparian vegetation." CDFW's definition of "lake" includes "natural lakes or man-made reservoirs." CDFW also defines a stream as “a body of water that flows, or has flowed, over a given course during the historic hydrologic regime, and where the width of its course can reasonably be identified by physical or biological indicators.”

[4] Fields used for the cultivation of rice (including wild rice) that have not been abandoned due to five consecutive years of non-use for the cultivation of rice (including wild rice) that are determined to be a water of the state in accordance with these Procedures shall not have beneficial use designations applied to them through the Water Quality Control Plan for the Sacramento and San Joaquin River Basins, except as otherwise required by federal law for fields that are considered to be waters of the United States. Further, agricultural inputs legally applied to fields used for the cultivation of rice (including wild rice) shall not constitute a discharge of waste to a water of the state. Agricultural inputs that migrate to a surface water or groundwater may be considered a discharge of waste and are subject to waste discharge requirements or waivers of such requirements pursuant to the Water Board’s authority to issue or waive waste discharge requirements or take other actions as applicable.

It is important to note that the Fish and Game Code defines fish and wildlife to include: all wild animals, birds, plants, fish, amphibians, invertebrates, reptiles, and related ecological communities including the habitat upon which they depend for continued viability (FGC Division 5, Chapter 1, section 45 and Division 2, Chapter 1 section 711.2(a) respectively). Furthermore, Division 2, Chapter 5, Article 6, Section 1600 et seq. of the California Fish and Game Code does not limit jurisdiction to areas defined by specific flow events, seasonal changes in water flow, or presence/absence of vegetation types or communities.

4.0 RESULTS

This section provides the results of general biological surveys, vegetation mapping, habitat assessments and focused surveys for special-status plants and animals, and a jurisdictional evaluation for the presence/absence of Waters of the United States (including wetlands) subject to the jurisdiction of the Corps and Regional Board, and streams (including riparian vegetation) and lakes subject to the jurisdiction of CDFW.

4.1 Existing Conditions

The 10.87-acre Project site is located in the City of Lancaster and is comprised of undeveloped land that supports *Ericameria nauseosa* shrubland alliance (rubber rabbitbrush scrub) and disturbed/developed areas. The Project site is located south of West Avenue L, east of 8th Street West, north of West Avenue L 4, is bordered by commercial land uses to the north and east, and abuts undeveloped land to the immediate west and south. Elevation on site ranges from approximately 2,485 to 2,501 feet above mean sea level (AMSL).

The Project site does not contain any blue-line drainages or potentially jurisdictional features exhibiting an OHWM or bed, bank, and channel.

Soils within the Project site are generally sandy, yet are still friable in nature (hold the ability to support burrows) and were mapped by the U.S. Department of Agriculture Natural Resource Conservation Service (NRCS) as Cajon Loamy Sand, 0 to 2 Percent Slopes (CaA); and Hesperia Fine Sandy Loam, 0 to 2 Percent Slopes (HkA) [Exhibit 6 – Soils Map].

4.2 Vegetation Mapping

During vegetation mapping of the Project site, two vegetation alliances/land cover types, disturbed *Ericameria nauseosa* shrubland alliance and disturbed/developed areas, were identified. Table 4-1 provides a summary of vegetation alliances/land cover types and the corresponding acreage. Detailed descriptions of each land cover type follow the table. A Vegetation Map is attached as Exhibit 4. Photographs depicting the vegetation/land cover types are attached as Exhibit 5.

Table 4-1. Summary of Vegetation/Land Cover Types for the Project Site

VEGETATION/LAND COVER TYPE	PROJECT SITE (acres)
Disturbed *Ericameria nauseosa* Shrubland Alliance	9.31
Disturbed/Developed	1.56
Total	**10.87**

Disturbed *Ericameria nauseosa* Shrubland Alliance

The Project site supports approximately 9.31 acres of disturbed *Ericameria nauseosa* shrubland alliance. This vegetation community appears to have been mechanically disturbed in the past, based on disturbance to the soil surface discernable through microtopography observed in the field. Past and ongoing disturbance has reduced the cover of native species and resulted in a greater prevalence of non-native annual species. Dominant plant species observed included rubber rabbitbrush (*Ericameria nauseosa*), four-wing saltbush (*Atriplex canescens* ssp. *canescens*), foxtail chess (*Bromus madritensis* ssp. *rubens*), cheatgrass (*Bromus tectorum*), and Arabian schismus (*Schismus arabicus*). Additional native shrub species present include Cooper's box thorn (*Lycium cooperi*) and creosote bush (*Larrea tridentata*).

Disturbed/Developed

The Project site contains approximately 1.56 acres of disturbed/developed lands. These areas consist of homeless encampments, areas cleared of vegetation, and established dirt roads and trails created by off-highway vehicle use.

4.3 Special-Status Vegetation Communities

The CNDDB identifies the following 6 special-status vegetation communities for Lancaster, Rosamond, Alpine Butte, Bouquet Reservoir, Willow Springs, and Rogers Lake quadrangle maps: Valley Needlegrass Grassland, Wildflower Field, Southern Coast Live Oak Riparian Forest, Southern Cottonwood Willow Riparian Forest, Southern Riparian Scrub, and Southern Willow Scrub. The Project site does not contain any special-status vegetation types, including those identified by the CNDDB.

4.4 Special-Status Plants

One special-status plant species, Joshua tree (*Yucca brevifolia*), was detected at the Project site. Table 4-2 provides a list of special-status plants evaluated for the Project site through general biological surveys, habitat assessments, and focused surveys. Species were evaluated based on the following factors: 1) species identified by the CNDDB and CNPS as occurring (either currently or historically) on or in the vicinity of the Project site, and 2) any other special-status plants that are known to occur within the vicinity of the Project site, or for which potentially suitable habitat occurs within the site.

Table 4-2. Special-Status Plants Evaluated for the Project Site

Species Name	Status	Habitat Requirements	Occurrence
adobe yampah *Perideridia pringlei*	Federal: None State: None CNPS: Rank 4.3	Serpentinite, often clay. Chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland	Does not occur due to a lack of suitable habitat.
alkali mariposa-lily *Calochortus striatus*	Federal: None State: None CNPS: Rank 1B.2	Alkaline and mesic soils in chaparral, chenopod scrub, Mojavean desert scrub, meadows and seeps.	Does not occur due to a lack of suitable habitat.
Barstow woolly sunflower *Eriophyllum mohavense*	Federal: None State: None CNPS: Rank 1B.2	Mesic soils in chenopod scrub, Mojavean desert scrub, and playas.	Does not occur due to a lack of suitable habitat.
California alkali grass *Puccinellia simplex*	Federal: None State: None CNPS: Rank 1B.2	Chenopod scrub, Meadows and seeps, Valley and foothill grassland, Vernal pools	Does not occur due to a lack of suitable habitat.
California androsace *Androsace elongata ssp. acuta*	Federal: None State: None CNPS: Rank 4.2	Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon and juniper woodland, valley and foothill grassland.	Does not occur due to a lack of suitable habitat.
Catalina mariposa lily *Calochortus catalinae*	Federal: None State: None CNPS: Rank 4.2	Chaparral, cismontane woodland, coastal sage scrub, valley and foothill grassland.	Does not occur due to a lack of suitable habitat.
Clokey's cryptantha *Cryptantha clokeyi*	Federal: None State: None CNPS: Rank 1B.2	Mojavean desert scrub.	Not expected to occur due to high levels of disturbance.
crowned muilla *Muilla coronata*	Federal: None State: None CNPS: Rank 4.2	Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland	Potential to occur. Surveys were conducted outside the typical blooming period of the species (March – April).
Cuyama gilia *Gilia latiflora* ssp. *cuyamensis*	Federal: None State: None CNPS: Rank 4.3	Pinyon and juniper woodland (sandy).	Does not occur due to a lack of suitable habitat.
golden goodmania *Goodmania luteola*	Federal: None State: None CNPS: Rank 4.2	Alkaline or clay soils. Mojavean desert scrub, Meadows and seeps, Playas, Valley and foothill grassland	Not expected to occur due to high levels of disturbance.
Horn's milk-vetch *Astragalus hornii* var. *hornii*	Federal: None State: None CNPS: Rank 1B.1	Lake margins with alkaline soils, meadows and seeps, and playas.	Does not occur due to a lack of suitable habitat.
inland gilia *Gilia interior*	Federal: None State: None CNPS: Rank 4.3	Rocky soil. Cismontane woodland, Joshua tree woodland, Lower montane coniferous forest	Does not occur due to a lack of suitable habitat.
Joshua Tree *Yucca brevifolia*	Federal: None State: Candidate Threatened CNPS: None	Chaparral, Joshua tree woodland, Mojavean desert scrub, pinon and juniper woodlands, and Sonoran desert scrub.	Present.

Species Name	Status	Habitat Requirements	Occurrence
Lancaster milk-vetch *Astragalus preussii* var. *laxiflorus*	Federal: None State: None CNPS: Rank 1B.1	Chenopod scrub.	Not expected to occur due to high levels of disturbance.
Mojave paintbrush *Castilleja plagiotoma*	Federal: None State: None CNPS: Rank 4.3	Great basin scrub (alluvial), Joshua tree woodland, Lower montane coniferous forest, Pinyon and juniper woodland	Not expected to occur due to high levels of disturbance.
Mojave spineflower *Chorizanthe spinosa*	Federal: None State: None CNPS: Rank 4.2	Sometimes alkaline soil. Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, Playas	Not expected to occur due to high levels of disturbance.
Palmer's mariposa-lily *Calochortus palmeri* var. *palmeri*	Federal: None State: None CNPS: Rank 1B.2	Mesic soils in chaparral, lower montane coniferous forest, and meadows and seeps.	Does not occur due to a lack of suitable habitat.
Parry's spineflower *Chorizanthe parryi* var. *parryi*	Federal: None State: None CNPS: Rank 1B.1	Sandy or rocky soils in open habitats of chaparral and coastal sage scrub.	Does not occur due to a lack of suitable habitat.
Peirson's morning-glory *Calystegia peirsonii*	Federal: None State: None CNPS: Rank 4.2	Chaparral, chenopod scrub, cismontane woodland, coastal scrub, lower montane coniferous forest, and valley and foothill grassland.	Does not occur due to a lack of suitable habitat.
Pleasant Valley mariposa-lily *Calochortus clavatus* var. *avius*	Federal: None State: None CNPS: 1B.2	Lower montane coniferous forest (Josephine silt loam, volcanic)	Does not occur due to a lack of suitable habitat.
Rosamond eriastrum *Eriastrum rosamondense*	Federal: None State: None CNPS: Rank 1B.1	Alkaline hummocks, often sandy. Chenopod scrub (openings), vernal pools (edges).	Does not occur due to a lack of suitable habitat.
sagebrush loeflingia *Loeflingia squarrosa* var. *artemisiarum*	Federal: None State: None CNPS: Rank 2B.2	Sandy soils in desert dunes, Great Basin scrub, and Sonoran desert scrub.	Not expected to occur due to high levels of disturbance.
short-joint beavertail *Opuntia basilaris* var. *brachyclada*	Federal: None State: None CNPS: Rank 1B.2	Chaparral, Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland.	Does not occur.
slender mariposa-lily *Calochortus clavatus* var. *gracilis*	Federal: None State: None CNPS: Rank 1B.2	Chaparral and coastal sage scrub.	Does not occur due to a lack of suitable habitat.
Torrey's box-thorn *Lycium torreyi*	Federal: None State: None CNPS: Rank 4.2	Sandy, rocky, washes, streambanks, desert valleys. Mojavean desert scrub and Sonoran desert scrub.	Does not occur.
white pygmy-poppy *Canbya candida*	Federal: None State: None CNPS: Rank 4.2	Gravelly, sandy, and granitic soils in Joshua tree woodland, Mojavean desert scrub, and pinyon and juniper woodland.	Potential to occur. Surveys were conducted outside the typical blooming period of the species (March – June).

Status

Federal
FE – Federally Endangered
FT – Federally Threatened
FC – Federal Candidate

State
SE – State Endangered
ST – State Threatened

CNPS
Rank 1A – Plants presumed extirpated in California and either rare or extinct elsewhere.
Rank 1B – Plants rare, threatened, or endangered in California and elsewhere.
Rank 2A – Plants presumed extirpated in California, but common elsewhere.
Rank 2B – Plants rare, threatened, or endangered in California, but more common elsewhere.
Rank 3 – Plants about which more information is needed (a review list).
Rank 4 – Plants of limited distribution (a watch list).

CNPS Threat Code extension
.1 – Seriously endangered in California (over 80% occurrences threatened)
.2 – Fairly endangered in California (20-80% occurrences threatened)
.3 – Not very endangered in California (<20% of occurrences threatened or no current threats known)

Occurrence

Does not occur – The site does not contain habitat for the species and/or the site does not occur within the geographic range of the species.
Absent – The site contains suitable habitat for the species, but the species has been confirmed absent through focused surveys.
Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.
Potential to occur – The species has a potential to occur onsite based on suitable habitat, however its presence/absence could not be confirmed.
Present – The species was detected onsite incidentally or through focused surveys.

4.4.1 Special-Status Plants Detected at the Project Site

One special status plant species, the Joshua tree (*Yucca brevifolia*), was detected at the project site. The Joshua tree is currently a Candidate for state Threatened listing and temporarily receives the same protections as a state listed species. The data collected for the Joshua tree is provided below in Table 4-3.

Table 4-3. Results of Joshua Tree Inventory

Tree #	Height (ft.)	Canopy Diameter (ft.)	Diameter Breast Height (in.)	Health Rating	Notes
1	14	5 x 5	12	Very Good (greater than 75%)	Single trunk
2	17	20 x 20	22	Very Good (greater than 75%)	Some anthropogenic disturbance and foliage dieback, multi-trunk

Focused plant surveys for the Project site were conducted July 11 and August 31, 2022, both of which occur outside of the blooming period for crowned muilla (*Muilla coronata*; CNPS Rank 4.2) that typically blooms between March and April, and white pygmy-poppy (*Canbya candida*; CNPS Rank 4.2) which typically blooms between March and June. Neither species were detected during focused surveys in 2022 but both have the potential to occur on site.

4.5 Special-Status Animals

No special-status animals were detected at the Project site. Table 4-4 provides a list of special-status animals evaluated for the Project site through general biological surveys, habitat assessments, and focused surveys. Species were evaluated based on the following factors, including: 1) species identified by the CNDDB as occurring (either currently or historically) on or in the vicinity of the Project site, and 2) any other special-status animals that are known to occur within the vicinity of the Project site, for which potentially suitable habitat occurs on the site.

Table 4-4. Special Status Animals Evaluated for the Project Site

Species Name	Status	Habitat Requirements	Occurrence
Invertebrates			
Crotch bumble bee *Bombus crotchii*	Federal: None State: SC	Relatively warm and dry sites, including the inner Coast Range of California and margins of the Mojave Desert.	Not expected to occur due to a lack of suitable forage.
Quino checkerspot butterfly *Euphydryas editha quino*	Federal: FE State: None	Larval and adult phases each have distinct habitat requirements tied to host plant species and topography. Larval host plants include *Plantago erecta* and *Castilleja exserta*. Adults occur on sparsely vegetated rounded hilltops and ridgelines, and are known to disperse through disturbed habitats to reach suitable nectar plants.	Does not occur, outside the known range of the species.
Vernal pool fairy shrimp *Branchinecta lynchi*	Federal: FE State: None	Restricted to deep seasonal vernal pools, vernal pool-like ephemeral ponds, and stock ponds.	Does not occur due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence
Amphibians			
California red-legged frog *Rana draytonii*	Federal: FT State: SSC	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby, or emergent riparian vegetation.	Does not occur due to a lack of suitable habitat.
Reptiles			
California glossy snake *Arizona elegans occidentalis*	Federal: None State: SSC	Inhabits arid scrub, rocky washes, grasslands, chaparral.	Not expected to occur due to high levels of disturbance.
California legless lizard *Anniella* spp.	Federal: None State: SSC	Common in the Coast Ranges from the vicinity of Antioch, Contra Costa Co. south to the Mexican border. Range includes the floor of the San Joaquin Valley from San Joaquin Co. south, the west slope of the southern Sierra, the Tehachapi Mountains west of the desert, and the mountains of southern California. Common in several habitats but especially in coastal dune, valley-foothill, chaparral, and coastal scrub types.	Not expected to occur due to high levels of disturbance.
Coast horned lizard *Phrynosoma blainvillii*	Federal: None State: SSC	Occurs in a variety of vegetation types including coastal sage scrub, chaparral, annual grassland, oak woodland, and riparian woodlands.	Not expected to occur due to high levels of disturbance.
Desert tortoise *Gopherus agassizii*	Federal: FT State: ST	Requires firm ground to dig burrows, or rocks to shelter among. Found in arid sandy or gravelly locations along riverbanks, washes, sandy dunes, alluvial fans, canyon bottoms, desert oases, rocky hillsides, creosote flats and hillsides.	Absent.
Two-striped gartersnake *Thamnophis hammondii*	Federal: None State: SSC	Aquatic snake typically associated with wetland habitats such as streams, creeks, and pools.	Does not occur due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence
Western pond turtle *Emys marmorata*	Federal: None State: SSC	Slow-moving permanent or intermittent streams, small ponds and lakes, reservoirs, abandoned gravel pits, permanent and ephemeral shallow wetlands, stock ponds, and treatment lagoons. Abundant basking sites and cover necessary, including logs, rocks, submerged vegetation, and undercut banks.	Does not occur due to a lack of suitable habitat.
Birds			
Burrowing owl *Athene cunicularia*	Federal: BCC State: SSC	Shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), coastal dunes, desert floors, and some artificial, open areas as a year-long resident. Occupies abandoned ground squirrel burrows as well as artificial structures such as culverts and underpasses.	Not expected to occur, not detected during focused surveys, however, two of four survey visits fell outside the protocol-prescribed date range. Follow-up breeding season surveys are recommended.
Coastal California gnatcatcher *Polioptila californica californica*	Federal: FT State: SSC	Low elevation coastal sage scrub and coastal bluff scrub.	Does not occur, outside the known range of the species.
Golden eagle *Aquila chrysaetos*	Federal: BCC State: WL, FP	In southern California, occupies grasslands, brushlands, deserts, oak savannas, open coniferous forests, and montane valleys. Nests on rock outcrops and ledges.	Not expected to occur due to high levels of disturbance.
Le Conte's thrasher *Toxostoma lecontei*	Federal: BCC State: SSC	Desert scrub, mesquite, tall riparian brush and, locally, chaparral.	Does not occur due to a lack of suitable habitat.
Least Bell's vireo *Vireo bellii pusillus*	Federal: FE State: SE	Dense riparian habitats with a stratified canopy, including southern willow scrub, mule fat scrub, and riparian forest.	Does not occur due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence
Loggerhead shrike *Lanius ludovicianus*	Federal: BCC State: SSC	Forages over open ground within areas of short vegetation, pastures with fence rows, old orchards, mowed roadsides, cemeteries, golf courses, riparian areas, open woodland, agricultural fields, desert washes, desert scrub, grassland, broken chaparral and beach with scattered shrubs.	Not expected to occur due to high levels of disturbance.
Mountain plover *Charadrius montanus*	Federal: BCC State: SSC	Does not nest in California. Occurs within the state only during the wintering season. Largest numbers winter among grasslands and agricultural areas within the interior areas of the state.	Does not occur due to a lack of suitable habitat.
Northern harrier *Circus hudsonius*	Federal: None State: SSC	A variety of habitats, including open wetlands, grasslands, wet pasture, old fields, dry uplands, and croplands.	Does not occur due to a lack of suitable habitat.
Short-eared owl *Asio flammeus*	Federal: None State: SSC	Open country, including prairie, meadows, tundra, moorlands, marshes, savanna, and open woodland. Nests on the ground.	Does not occur due to a lack of suitable habitat.
Swainson's hawk *Buteo swainsoni*	Federal: BCC State: ST	Summer in wide open spaces of the American West. Nest in grasslands, but can use sage flats and agricultural lands. Nests are placed in lone trees.	Not expected to occur due to high levels of disturbance.
Tricolor blackbird *Agelaius tricolor*	Federal: BCC State: CE, SSC	Breeding colonies require nearby water, a suitable nesting substrate, and open-range foraging habitat of natural grassland, woodland, or agricultural cropland.	Does not occur due to a lack of suitable habitat.
Western snowy plover *Charadrius nivosus nivosus*	Federal: FT, BCC State: SSC	Sandy or gravelly beaches along the coast, estuarine salt ponds, alkali lakes, and at the Salton Sea.	Does not occur due to a lack of suitable habitat.

Species Name	Status	Habitat Requirements	Occurrence
Mammals			
American badger *Taxidea taxus*	Federal: None State: SSC	Most abundant in drier open stages of most scrub, forest, and herbaceous habitats, with friable soils.	Does not occur due to a lack of suitable habitat.
Mohave ground squirrel *Xerospermophilus mohavensis*	Federal: None State: ST	Mojave creosote scrub, desert saltbush scrub, desert sink scrub, desert greasewood scrub, shadscale scrub, and Joshua tree woodland.	Not expected to occur due to high levels of disturbance and lack of suitable forage.
San Joaquin pocket mouse *Perognathus inornatus*	Federal: None State: None	Dry, open, grassy, or weedy ground, and arid annual grasslands, savanna, and desert-shrub associations with sandy washes or finely textured soils.	Not expected to occur due to high levels of disturbance.
Southern grasshopper mouse *Onychomys torridus ramona*	Federal: None State: SSC	Desert areas, especially scrub habitats with friable soils for digging. Prefers low to moderate shrub cover.	Has limited potential to occur.
Townsend's big-eared bat *Corynorhinus townsendii*	Federal: None State: SSC	Coniferous forests and woodlands, deciduous riparian woodland, semi-desert and montane shrublands.	Does not occur due to a lack of suitable habitat.

Status

Federal
FE – Federally Endangered
FT – Federally Threatened
FPT – Federally Proposed Threatened
FC – Federal Candidate
BGEPA– Bald and Golden Eagle Protection Act

State
SE – State Endangered
ST – State Threatened
SC– State Candidate
CFP – California Fully-Protected Species
SSC – Species of Special Concern

Western Bat Working Group (WBWG)
H – High Priority
LM – Low-Medium Priority
M – Medium Priority
MH – Medium-High Priority

Occurrence

Absent – The species is absent from the site, either because the site lacks suitable habitat for the species, the site is located outside of the known range of the species, or focused surveys has confirmed the absence of the species.
Not expected to occur – The species is not expected to occur onsite due to low habitat quality, however absence cannot be ruled out.
Potential to occur – The species has a potential to occur onsite based on suitable habitat, however its presence/absence could not be confirmed.
Present – The species was detected onsite incidentally or through focused surveys.

4.5.1 Special-Status Wildlife Species Observed within the Project Site

No special-status wildlife, including state- or federally- listed species, were detected within the Project site.

4.5.2 Special-Status Wildlife Species not Observed but with a Potential to Occur at the Project Site

Burrowing Owl (*Athene cunicularia*) - The burrowing owl is designated as a CDFW Species of Special Concern (SSC). The burrowing owl occurs in shortgrass prairies, grasslands, lowland scrub, agricultural lands (particularly rangelands), prairies, coastal dunes, desert floors, and some artificial, open areas as a year-long resident. They require large open expanses of sparsely vegetated areas on gently rolling or level terrain with an abundance of active small mammal burrows. As a critical habitat feature need, they require the use of rodent or other burrows for roosting and nesting cover.

The Project site supports approximately 9.31 acres of potentially suitable habitat for the burrowing owl (*Ericameria nauseosa* shrubland alliance – disturbed). Burrowing owl or diagnostic sign of burrowing owls (e.g., cast pellets, preened feathers, or whitewash clustered at a burrow) were not observed during focused burrowing owl surveys conducted on June 17, June 22, July 11, and August 31, 2022. However, per the 2012 CDFW Staff Report on Burrowing Owl Mitigation, focused breeding season surveys require four focused survey visits to be conducted between February 15 and July 15, with the first visit occurring between February 15 and April 15. The remaining three visits are to be conducted a minimum of three weeks apart from each other, with at least one visit occurring between June 15 and July 15. As such, two of the four survey visits conducted at the Project site during 2022 fell outside the survey window prescribed by CDFW.

Despite the timing of the 2022 surveys, and given the lack of observed owls and/or detectable diagnostic sign, which would be expected to persist had burrowing owls occupied the Project site during the 2022 breeding season, it is GLA's opinion that it is unlikely that burrowing owls occupy the Project site in a breeding role. However, it is acknowledged that two of the four survey visits were conducted outside of the protocol-prescribed date range. Therefore, it is recommended that focused breeding season burrowing owl surveys are repeated in 2023 pursuant to the survey guidelines described in the 2012 CDFW Staff Report on Burrowing Owl Mitigation.

Mammals

Southern Grasshopper Mouse (*Onychomys torridus ramona*) – The southern grasshopper mouse is designated as a CDFW Species of Special Concern. The southern grasshopper mouse inhabits desert areas, especially scrub habitats with friable soils for digging, and prefers low to moderate shrub cover.

Although the Project Site supports approximately 9.31 acres of potentially suitable habitat for the southern grasshopper mouse (*Ericameria nauseosa* shrubland alliance – disturbed), there is low

potential that the grasshopper mouse may be present at the Project site due to the lack of suitable burrows and high levels of anthropogenic disturbance.

4.5.3 State or Federally Listed Wildlife Species Confirmed Absent Through Focused Surveys or Not Expected at the Project Site Based on Habitat Assessments

Desert Tortoise (*Gopherus agassizii*) - The desert tortoise is federal and state listed as threatened by the USFWS and CDFW, respectively. The desert tortoise occurs in sandy or gravelly locations along riverbanks, washes, sandy dunes, alluvial fans, canyon bottoms, desert oases, rocky hillsides, creosote flats and hillsides. They require firm ground and friable soils to dig burrows, or rocks to shelter among.

Desert tortoise, or evidence of desert tortoise (e.g., live tortoises, shell, bones, scutes, limbs, scats, burrows, pallets, tracks, eggshell fragments, courtship rings, drinking sites, mineral licks, etc.) were not detected during the general biological survey conducted on June 17, 2022, or subsequent focused desert tortoise survey conducted June 24, 2022. Therefore, the Project site is not considered to be occupied by desert tortoise.

Mohave Ground Squirrel (*Xerospermophilus mohavensis*) - The Mohave ground squirrel is designated as state Threatened by the CDFW. The Mohave ground squirrel occurs in Mojave creosote scrub, desert saltbush scrub, desert sink scrub, desert greasewood scrub, shadscale scrub, and Joshua tree woodland.

A focused habitat assessment for MGS was conducted for the Project site on May 9, 10, and 11, 2022, by Phil Brylski, who holds an MOU with CDFW for trapping of MGS. The habitat assessment concluded that MGS are not expected to occur at the Project site, based on past and ongoing disturbance, including significant recent disturbance to the topsoil. Habitat suitability for MGS was also ruled out based on the general absence of this species within the vicinity of the Project site, as determined through the review of records of extant populations of this species within greater than five miles from the Project site. The results of the Mohave Ground Squirrel Habitat Assessment are attached as Appendix C.

4.6 Raptor Use

Southern California holds a diversity of birds of prey (raptors), and many of these species are in decline. For most of the declining species, foraging requirements include extensive open, undisturbed, or lightly disturbed areas, especially grasslands. This type of habitat has declined severely in the region, affecting many species, but especially raptors. A few species, such as Red-tailed Hawk (*Buteo jamaicensis*) and American Kestrel (*Falco sparverius*), are somewhat adaptable to low-level human disturbance and can be readily observed adjacent to neighborhoods and other types of development. These species still require appropriate foraging habitat and low levels of disturbance in vicinity of nesting sites.

The Project Site provides marginally suitable foraging habitat for raptors, however, the high levels of site disturbance and human presence make use of the site by special-status raptors highly unlikely. During the general biological surveys and focused burrowing owl surveys, GLA

did not detect raptor species within the Project site. Small mammal burrows were detected, and the Project Site supports some habitat for lizards, snakes, and invertebrates. A total of 10.87 acres of marginally suitable foraging habitat is present for raptors. The Project Site does not support potential raptor nesting habitat.

4.7 Nesting Birds

The Project site contains shrubs and ground cover that provide suitable habitat for nesting migratory birds. Impacts to nesting birds are prohibited under the Migratory Bird Treaty Act (MBTA) and California Fish and Game Code.[5] Bird diversity within the Project site is low due to the disturbed nature of the Project site and proximity to major streets, and residential and commercial buildings, however, the site does have limited potential to support nesting birds.

4.8 Wildlife Linkages/ Corridors and Nursery Sites

Habitat linkages are areas which provide a connection between two or more other habitat areas which are often larger or superior in quality to the linkage. Such linkage sites can be quite small or constricted, but may can be vital to the long-term health of connected habitats. Linkage values are often addressed in terms of "gene flow" between populations, with movement taking potentially many generations.

Corridors are similar to linkages, but provide specific opportunities for individual animals to disperse or migrate between areas, generally extensive but otherwise partially or wholly separated regions. Adequate cover and tolerably low levels of disturbance are common requirements for corridors. Habitat in corridors may be quite different than that in the connected areas, but if used by the wildlife species of interest, the corridor will still function as desired.

Wildlife nurseries are sites where wildlife concentrate for hatching and/or raising young, such as rookeries, spawning areas, and bat colonies. Nurseries can be important to both special-status species as well as commonly occurring species.

Being that the Project site is bordered by existing development, and existing conditions are characterized by a high level of disturbance and consistent human presence, the Project site does not represent a wildlife linkage, corridor, or nursery site.

4.9 Critical Habitat

The Project Site is not located within federally proposed or designated Critical Habitat areas.

[5] The MBTA makes it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 C.F.R. Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 C.F.R.21). In addition, sections 3505, 3503.5, and 3800 of the California Department of Fish and Game Code prohibit the take, possession, or destruction of birds, their nests or eggs.

4.10 Jurisdictional Delineation

The Project Site does not contain any drainage or ponding features that would potentially be subject to the jurisdiction of the Corps, CDFW, or the Regional Board.

5.0 IMPACT ANALYSIS

The following discussion examines the potential impacts to plant and wildlife resources that would occur as a result of the proposed project. Impacts (or effects) can occur in two forms, direct and indirect. Direct impacts are considered to be those that involve the loss, modification or disturbance of plant communities, which in turn, directly affect the flora and fauna of those habitats. Direct impacts also include the destruction of individual plants or animals, which may also directly affect regional population numbers of a species or result in the physical isolation of populations thereby reducing genetic diversity and population stability.

Indirect impacts pertain to those impacts that result in a change to the physical environment, but which is not immediately related to a project. Indirect (or secondary) impacts are those that are reasonably foreseeable and caused by a project but occur at a different time or place. Indirect impacts can occur at the urban/wildland interface of projects, to biological resources located downstream from projects, and other off site areas where the effects of the project may be experienced by plants and wildlife. Examples of indirect impacts include the effects of increases in ambient levels of noise or light; predation by domestic pets; competition with exotic plants and animals; introduction of toxics, including pesticides; and other human disturbances such as hiking, off-road vehicle use, unauthorized dumping, etc. Indirect impacts are often attributed to the subsequent day-to-day activities associated with project build-out, such as increased noise, the use of artificial light sources, and invasive ornamental plantings that may encroach into native areas. Indirect effects may be both short-term and long-term in their duration. These impacts are commonly referred to as "edge effects" and may result in a slow replacement of native plants by non-native invasives, as well as changes in the behavioral patterns of wildlife and reduced wildlife diversity and abundance in habitats adjacent to project sites.

Cumulative impacts refer to two or more individual effects which, when considered together, are considerable or which compound or increase other environmental impacts. A cumulative impact can occur from multiple individual effects from the same project, or from several projects. The cumulative impact from several projects is the change in the environment resulting from the incremental impact of the project when added to other closely related past, present, and reasonably foreseeable probable future projects. Cumulative impacts can result from individually minor but collectively significant projects taking place over a period of time.

5.1 California Environmental Quality Act (CEQA)

5.1.1 Thresholds of Significance

Environmental impacts to biological resources are assessed using impact significance threshold criteria, which reflect the policy statement contained in CEQA, Section 21001(c) of the

California Public Resources Code. Accordingly, the State Legislature has established it to be the policy of the State of California:

> *"Prevent the elimination of fish or wildlife species due to man's activities, ensure that fish and wildlife populations do not drop below self-perpetuating levels, and preserve for future generations representations of all plant and animal communities..."*

Determining whether a project may have a significant effect, or impact, plays a critical role in the CEQA process. According to CEQA, Section 15064.7 (Thresholds of Significance), each public agency is encouraged to develop and adopt (by ordinance, resolution, rule, or regulation) thresholds of significance that the agency uses in the determination of the significance of environmental effects. A threshold of significance is an identifiable quantitative, qualitative or performance level of a particular environmental effect, non-compliance with which means the effect will normally be determined to be significant by the agency and compliance with which means the effect normally will be determined to be less than significant. In the development of thresholds of significance for impacts to biological resources CEQA provides guidance primarily in Section 15065, Mandatory Findings of Significance, and the CEQA Guidelines, Appendix G, Environmental Checklist Form. Section 15065(a) states that a project may have a significant effect where:

> *"The project has the potential to substantially degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or wildlife community, reduce the number or restrict the range of an endangered, rare, or threatened species, ..."*

Therefore, for the purpose of this analysis, impacts to biological resources are considered potentially significant (before considering offsetting mitigation measures) if one or more of the following criteria discussed below would result from implementation of the proposed project.

5.1.2 Criteria for Determining Significance Pursuant to CEQA

Appendix G of the 2017 State CEQA guidelines indicate that a project may be deemed to have a significant effect on the environment if the project is likely to:

> *a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*
>
> *b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service.*

c) Have a substantial adverse effect on state or federally protected wetlands (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means.

d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites.

e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance.

f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

5.2 Impacts to Native Vegetation

The Project will not impact any sensitive vegetation communities. The proposed Project would permanently impact approximately 10.87 acres of lands through grading, including areas of construction access. Permanent impacts to native vegetation include approximately 9.31 acres of disturbed *Ericameria nauseosa* shrubland alliance, along with permanent impacts to approximately 1.56 acres of disturbed/developed areas. Table 5-1 provides a summary of impacts to vegetation/land cover types.

Table 5-1. Summary of Vegetation/Land Cover Impacts

Vegetation /Land Cover Type	Total Acreage
Disturbed *Ericameria nauseosa* Shrubland Alliance	9.31
Disturbed/Developed	1.56
Total	**10.87**

Based on the disturbed nature of the vegetation community within the Project site and given that this community is not considered sensitive and is stable within the state and the region, proposed impacts to 9.31 acres of *Ericameria nauseosa* shrubland alliance would not reach a level of significance under CEQA.

5.3 Impacts to Special-Status Plants

The proposed Project will impact one special-status plant species: Joshua tree (*Yucca brevifolia*). The Joshua tree is currently a Candidate for listing as state Threatened and receives the same protections as a state-listed Threatened or Endangered species. Two mature Joshua trees in very good health condition would be impacted by the proposed Project. Proposed impacts to the Joshua tree would be potentially significant prior to mitigation under CEQA and would require

an Incidental Take Permit from CDFW. A Project-specific measure is included in Section 6.1 to reduce the impact to less than significant.

Two special-status plant species; crowned muilla (CRPR 4.2) and white pygmy-poppy (CRPR 4.2) were found to have low potential to occur on site. If crowned muilla and white-pygmy poppy are determined to be present at the Project site during focused surveys conducted in 2023, proposed project impacts are not expected to reach a level of significance under CEQA, as both species are categorized as CRPR 4.2 species, and the Project site is not expected to support population sizes critical for the continued existence of either species within the region.

5.4 Impacts to Special-Status Animals

Burrowing Owl (*Athene cunicularia*) – The proposed Project would remove approximately 9.31 acres of low quality potentially suitable habitat for the burrowing owl. Although not likely based on the level of disturbance at the Project site, if burrowing owls are detected occupying the Project site in a breeding role during recommended protocol surveys, impacts to breeding burrowing owls and their territory would be considered significant prior to mitigation under CEQA. In addition, take of burrowing owls is prohibited under the MBTA and California Fish and Game Code. A Project-specific measure is included in Section 6.2 to reduce Project impacts to less than significant and to avoid direct take of burrowing owls.

Southern Grasshopper Mouse (*Onychomys torridus ramona*) – The proposed Project would result in impacts to approximately 9.31 acres of habitat that is marginally suitable for the southern grasshopper mouse. Based on the low quality of habitat present for southern grasshopper mouse and the minimal extent of proposed impacts, the loss of approximately 9.31 acres of marginally suitable habitat for southern grasshopper mouse would not reach a level of significance under CEQA.

5.5 Impacts to Critical Habitat

The proposed Project will not impact lands proposed or designated as Critical Habitat by the USFWS.

5.6 Impacts to Nesting Birds

The project has the potential to impact active bird nests if vegetation is removed during the nesting season (February 1 to September 15). Impacts to nesting birds are prohibited by the MBTA and California Fish and Game Code. A project-specific measure is identified in Section 6.3 of this report to avoid impacts to nesting birds.

5.7 Impacts to Jurisdictional Waters

No Corps, CDFW, or Regional Board jurisdictional waters would be impacted by the proposed Project.

5.8 Indirect Impacts to Biological Resources

In the context of biological resources, indirect effects are those effects associated with developing areas adjacent to adjacent native open space. Potential indirect effects associated with development include water quality impacts from associated with drainage into adjacent open space/downstream aquatic resources; lighting effects; noise effects; invasive plant species from landscaping; and effects from human access into adjacent open space, such as recreational activities (including off-road vehicles and hiking), pets, dumping, etc. Temporary, indirect effects may also occur as a result of construction-related activities. As the Project site is surrounded on three sides by development and undeveloped lands to the west are in a similarly disturbed condition, the proposed Project is not expected to result in significant indirect impacts to special-status biological resources.

5.9 Cumulative Impacts to Biological Resources

Cumulative impacts are defined as the direct and indirect effects of a proposed project which, when considered alone, would not be deemed a substantial impact, but when considered in addition to the impacts of related projects in the area, would be considered potentially significant. "Related projects" refers to past, present, and reasonably foreseeable probable future projects, which would have similar impacts to the proposed project.

A discussion of cumulative impacts is presented in the Project Mitigated Negative Declaration, under a separate cover.

6.0 MITIGATION/AVOIDANCE MEASURES

The following discussion provides project-specific mitigation/avoidance measures for actual or potential impacts to special-status resources.

6.1 Joshua Tree

If the Joshua tree remains as a state Candidate for listing as a Threatened species at the time of Project impacts, the following measures will apply:

- Prior to conducting any ground disturbance, vegetation removal or any construction-related activities that could result in direct or indirect impacts to the Joshua tree, the Applicant will coordinate with CDFW to obtain an Incidental Take Permit. Impacts to the Joshua tree will be offset by one or a combination of the following through coordination with CDFW: a) translocation of the two Joshua trees to land that supports suitable habitat for the species, which will be placed under a conservation easement, restrictive covenant, or similar protective mechanism, with replacement of the tree through planting of nursery-grown tree(s) if the two trees do not survive translocation at a minimum 1:1 ratio; b) preservation in perpetuity of the existing trees at the Project site; and/or c) payment of mitigation fee into the Joshua Tree Mitigation Fund if CDFW has established the fund prior to the time of Project impacts.

In the event that the Joshua tree is not listed as a threatened species or CDFW removes this species from Candidate status, then an ITP from CDFW will not be needed and the above measures will not be required.

6.2 Burrowing Owl

Burrowing owls were not detected onsite during the focused surveys conducted in 2022, however, the 2022 focused survey effort was not conducted entirely in accordance with the 2012 CDFW Staff Report on Burrowing Owl Mitigation. Given that the Project site contains suitable habitat for burrowing owl and that the 2022 surveys cannot definitively conclude presence/absence, the following measures are recommended to avoid direct impacts to burrowing owl.

- A follow-up protocol focused breeding survey will occur during the 2023 breeding season, to be conducted in accordance with the 2012 CDFW Staff Report on Burrowing Owl Mitigation which stipulate that four focused survey visits should be conducted between February 15 and July 15, with the first visit occurring between February 15 and April 15. The remaining three visits will be conducted a minimum of three weeks apart from each other, with at least one visit occurring between June 15 and July 15.

  If burrowing owls are found to occupy the site in a breeding role, the Biologist shall coordinate with CDFW prior to the commencement of any ground disturbing activities to determine an appropriate avoidance buffer (if feasible) for the breeding owls based on the location of natal and satellite burrows and the extent of utilized habitat. If an adequate avoidance buffer is determined though coordination with CDFW, the designated buffer will be clearly marked in the field and will be mapped on construction plans. Construction within the avoidance buffer shall be subject to CDFW approval and will only be allowed to proceed when the qualified Biologist has determined that nesting activities have concluded and all fledglings have dispersed from the site.

  If an active burrow is observed outside the breeding season (i.e., September 1 to January 31) and it can be avoided, the Biologist shall coordinate with CDFW to determine an appropriate avoidance buffer for the burrow. The designated buffer will be clearly marked in the field and will be mapped on construction plans. If an active burrow is observed outside the breeding season (i.e., September 1 to January 31) and it cannot be avoided, the burrowing owl shall be passively excluded from the burrow following accepted CDFW protocols and as approved by the CDFW through the preparation of a Burrowing Owl Relocation Plan.

  Compensation for the loss of occupied burrowing owl breeding habitat will occur at a 1:1 ratio such that the habitat acreage, number of burrows and burrowing owls impacted are replaced. As required by CDFW (2012), the Burrowing Owl Relocation Plan will be approved by CDFW and will ensure that lands used to compensate for the loss of habitat, burrows, and burrowing owls will be placed into a Conservation Easement or similar protective mechanism and managed in perpetuity.

- If burrowing owl are not found during the scheduled 2023 protocol focused breeding surveys, a pre-construction survey for the burrowing owl will be conducted within 14 to 30 days prior to conducting any ground disturbing activities to ensure that no mortality of the species occurs (CDFW 2012).

  If burrowing owls are detected on site during the pre-construction survey, coordination with CDFW and the passive exclusion described above will be subject to CDFW approval and will be implemented to avoid direct take of burrowing owl. If owls are detected in a breeding role, coordination with CDFW and the exclusion process described above will be subject to CDFW approval and will take place once the Biologist has determined that nesting has concluded and that the young have dispersed from the site. Additionally, the conservation of replacement lands as described above will be required to compensate for the loss of breeding habitat.

  If time lapses of greater than 30 days occur during construction in a particular portion of the work area, an additional survey shall be conducted by a qualified Biologist within 24 hours prior to vegetation clearing and/or ground disturbance in that area. If any new burrowing owls are observed, the conditions above shall be applied.

If burrowing owls are not detected during the 2023 protocol focused breeding surveys or reconstruction survey, then no additional action is required.

6.3 Nesting Birds

The Project site contains vegetation and bare ground with the potential to support native nesting birds. As discussed above, the MBTA and California Fish and Game Code prohibits mortality of native birds, including eggs. The following measure is recommended to avoid take of nesting birds. Potential impacts to native birds were not considered a biologically significant impact under CEQA; however, to comply with state law, the following is recommended:

- As feasible, vegetation clearing should be conducted outside of the nesting season, which is generally identified as February 1 through September 15. If avoidance of the nesting season is not feasible, then a qualified biologist shall conduct a nesting bird survey within three days prior to any disturbance of the site, including disking, vegetation grubbing, and grading. If active nests are identified, a qualified biologist shall establish suitable buffers around the nests, and the buffer areas shall be avoided until the nests are no longer occupied and the juvenile birds can survive independently from the nests.

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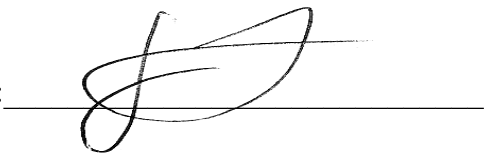
8.0 CERTIFICATION

I hereby certify that the statements furnished above and in the attached exhibits present data and information required for this biological evaluation, and that the facts, statements, and information presented are true and correct to the best of my knowledge and belief.

Signed: 

Date: February 10, 2023

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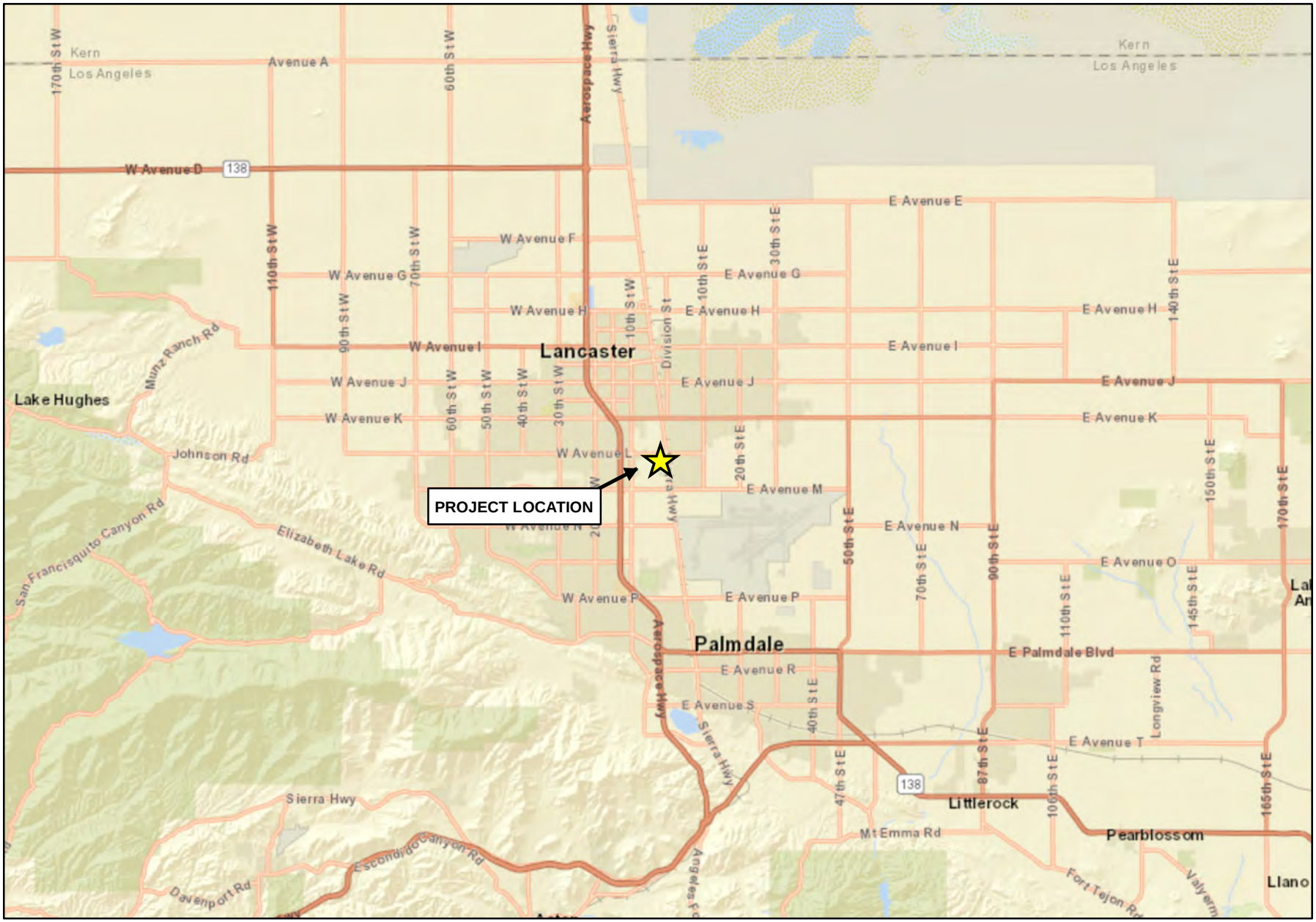
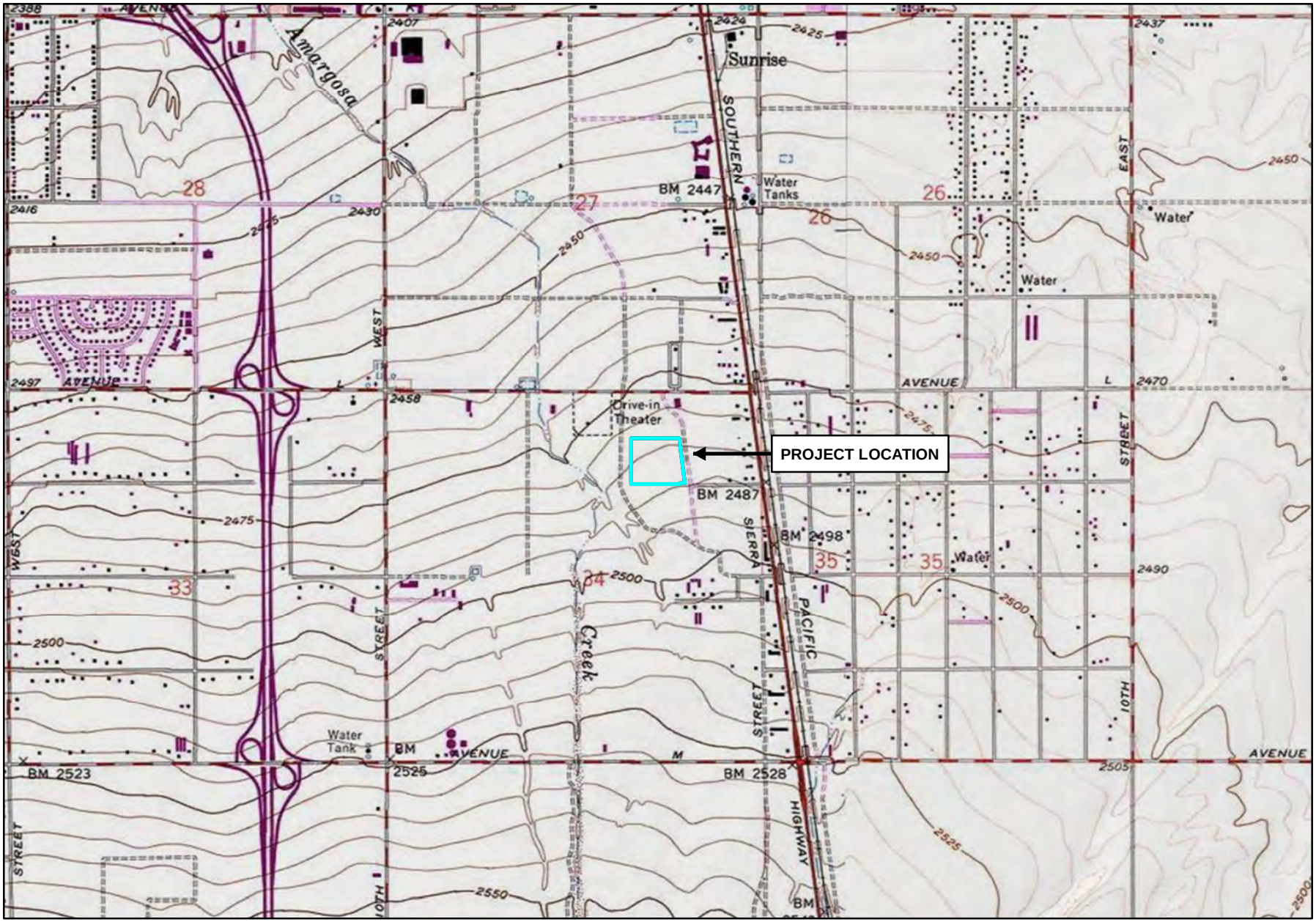


AVENUE L-4 PROPERTY

Regional Map

GLENN LUKOS ASSOCIATES

Exhibit 1



Adapted from USGS Lancaster West, CA quadrangle

AVENUE L-4 PROPERTY

Vicinity Map

GLENN LUKOS ASSOCIATES

Exhibit 2

Project Site

Project Site Plan

N

0 50 100 200

Feet

1 inch = 100 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 17, 2023

AVENUE L-4 PROPERTY

Aerial Map/Site Plan

GLENN LUKOS ASSOCIATES

Exhibit 3

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Project Site

Disturbed Ericameria nauseosa Shrubland Alliance

Disturbed/Developed

Joshua Tree

N

0 50 100 200

Feet

1 inch = 100 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 17, 2023

AVENUE L-4 PROPERTY

Vegetation Map

GLENN LUKOS ASSOCIATES

Exhibit 4

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Photograph 1: View from northwest corner of the Project Site looking south showing disturbed rubber rabbitbrush scrub.

Photograph 2: View from northeast corner of the Project Site looking south showing disturbed area in foreground, and disturbed rubber rabbitbrush scrub in the background.

GLENN LUKOS ASSOCIATES

Exhibit 5 – Page 1

AVENUE L-4 PROPERTY PROJECT

Site Photographs

Photograph 3: View from southeast corner of the Project Site looking north showing disturbed rubber rabbitbrush scrub.

Photograph 4: View from southwest corner of the Project Site looking north showing one of two Joshua Trees (*Yucca brevifolia*) within disturbed rubber rabbitbrush scrub.

Project Site

CaA - Cajon loamy sand, 0 to 2 percent slopes

HkA - Hesperia fine sandy loam, 0 to 2 percent slopes

N

0 50 100 200

Feet

1 inch = 100 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 17, 2023

AVENUE L-4 PROPERTY

Soils Map

GLENN LUKOS ASSOCIATES

Exhibit 6

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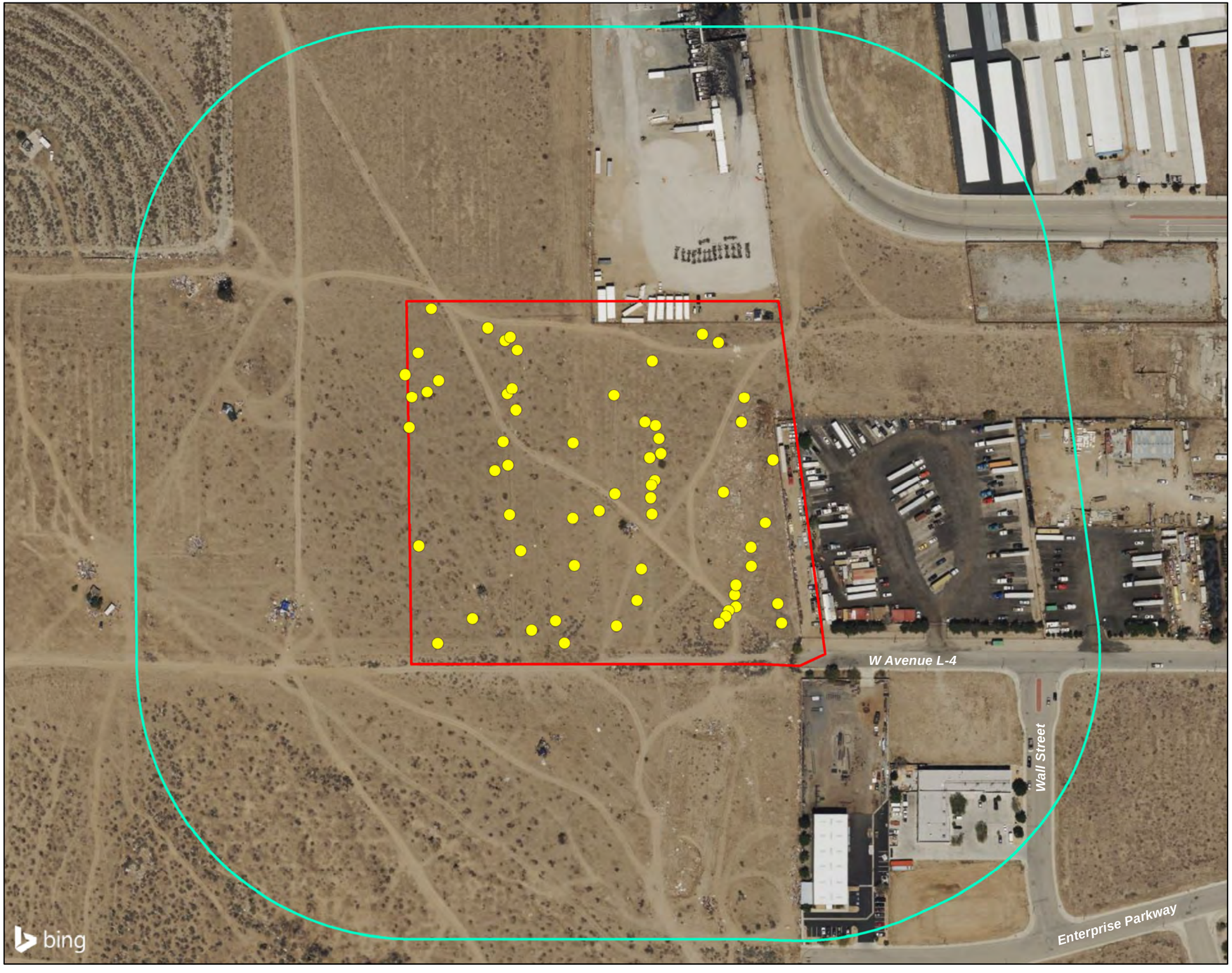

Project Site

500' Visual Survey Area

Burrow

N

0 87.5 175 350

Feet

1 inch = 175 feet

Coordinate System: State Plane 6 NAD 83
Projection: Lambert Conformal Conic
Datum: NAD 1983 2011
Map Prepared by: K. Kartunen, GLA
Date Prepared: January 17, 2023

AVENUE L-4 PROPERTY

Burrowing Owl Survey Map

GLENN LUKOS ASSOCIATES

Exhibit 7

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APPENDIX A
FLORAL COMPENDIUM

The floral compendium lists all species identified during floristic level/focused plant surveys conducted for the Project site. Taxonomy follows the The Jepson Manual (2012). Common plant names are taken from Hickman (2012), Munz (1974), and Roberts et al (2004) and Roberts (2008). An asterisk (*) denotes a non-native species.

SCIENTIFIC NAME	COMMON NAME
AGAVACEAE	**Agave Family**
Yucca brevifolia	Joshua tree
AMARANTHACEAE	**Amaranth Family**
Atriplex canescens ssp. *canescens*	fourwing saltbush
ASTERACEAE	**Sunflower Family**
Ambrosia psilostachya	western ragweed
Ericameria nauseosa	rubber rabbitbrush
Lessingia glandulifera var. *glandulifera*	valley lessingia
Stephanomeria pauciflora	wire lettuce
BRASSICACEAE	**Mustard Family**
Descurainia pinnata	western tansy-mustard
EPHEDRACEAE	**Ephedra Family**
Ephedra viridis	green ephedra
EUPHORBIACEAE	**Spurge Family**
Euphorbia albomarginata	rattlesnake spurge
Stillingia paucidentata	tooth leaf
FABACEAE	**Legume Family**
* Parkinsonia aculeata	Jerusalem thorn
GERANIACEAE	**Geranium Family**
* *Erodium cicutarium*	red-stemmed filaree
POACEAE	**Grass Family**
* *Bromus madritensis* subsp. *rubens*	foxtail chess
* *Bromus tectorum*	cheatgrass
* *Schismus arabicus*	Arabian schismus
POLYGONACEAE	**Buckwheat Family**
Eriogonum gracillimum	rose and white buckwheat

SOLANACEAE	**Nightshade Family**
Lycium cooperi	Cooper's box thorn
ZYGOPHYLLACEAE	**Caltrop Family**
Larrea tridentata	Creosote bush

APPENDIX B
FAUNAL COMPENDIUM

The faunal compendium lists species that were either observed within or adjacent to the Study Area (denoted by a '*'), or that have some potential to occur within or adjacent to the Study Area (denoted by a '+'). Taxonomy and common names are taken from the California Wildlife Habitat Relationships System (CDFW 2016); AOU (2021) and CDFW (2016) for birds; Stebbins (1985), Collins and Taggart (2009), Jones et al. (1992), and CDFW (2016) for reptiles and amphibians; and CDFW (2016) for mammals.

REPTILIA	**REPTILES**
PHRYNOSOMATIDAE	**Phrynosomatid Lizards**
Uta stansburiana	common side-blotched lizard
Sceloporus occidentalis	western fence lizard
AVES	**BIRDS**
COLUMBIDAE	**Pigeons And doves**
* *Columba livia*	rock pigeon
Zenaida macroura	mourning dove
CORVIDAE	**Crows And Jays**
Corvus brachyrhynchos	American crow
ALAUDIDAE	**Larks**
Eremophila alpestris	horned lark
MIMIDAE	**Mockingbirds and Thrashers**
Mimus polyglottos	northern mockingbird
PASSERELLIDAE	**New World Sparrows**
Melospiza melodia	song sparrow
FRINGILLIDAE	**Fringilline And Cardueline Finches**
Haemorhous mexicanus	house finch
MAMMALIA	**MAMMALS**
CANIDAE	**DOGS**
Canis latrans	coyote

LEPORIDAE	**Rabbits And Hares**
Sylvilagus audubonii	desert (Audubon's) cottontail
SCIURIDAE	**Squirrels, Chipmunks, And Marmots**
Otospermophilus beecheyi	California ground squirrel
FELIDAE	**Cats**
* *Felis catus*	feral cat

APPENDIX C

MOHAVE GROUND SQUIRREL HABITAT ASSESSMENT

December 19, 2022

Ms. Thienan Pfeiffer
President and Director of Regulatory Services
Glenn Lukos Associates, Inc.
1940 E Deere Avenue, Suite 250
Santa Ana, CA 92705

Subject: Habitat assessment for the Mohave ground squirrel on the Avenue L-4 Property, Lancaster, Los Angeles County.

This memo summarizes the results of a habitat assessment for the Mohave ground squirrel (*Xerospermophilus mohavensis*, MGS) on the approximately 10.78-acre Avenue L-4 property in Lancaster. Surveys were carried out by Phil Brylski, PhD, who holds a Memorandum of Understanding with the California Department of Fish and Wildlife for MGS surveys.

The Project site is southwest of the intersection of Avenue L W and Sierra Highway in Lancaster (Assessor Parcel Numbers 3128-007-015, 3128-007-024). Figure 1 shows its location on the Lancaster West U.S. Geological Survey (USGS) topographic map (Township 7N, Range 12W; $NE^{1/4}$ Section 34) at an elevation of approximately 2,465 feet above mean sea level. Figures 2 and 3 show the Project site on aerial photos. The coordinates for the approximate center of the Project site are 34.657581 -118.134839. Site photos are found in Appendix 1.

Background on the Mohave Ground Squirrel

The MGS is a small ground squirrel, approximately 9 inches long, which inhabits the Mojave Desert in parts of Inyo, Kern, Los Angeles and San Bernardino counties. The historical range of the MGS covered approximately 5 million acres from Palmdale in the south to Owens Lake in the north, and from the eastern edge of the Sierra Nevada to the Mojave River Valley (Gustafson 1993, Leitner 2008).

MGS occur in a range of open desert habitats, most commonly in creosote scrub but also in Joshua tree woodland, desert saltbush scrub, desert sink scrub, desert greasewood scrub, and shadscale scrub (Gustafson, 1993). MGS typically occur in areas with open vegetative cover and small bushes (< 0.6 meter [2 feet] in height) spaced approximately 6 to 9 meters (20 to 30 feet) apart. MGS consume leaves, forbs, shrubs, and grasses of several species and genera, including creosote (*Larrea tridentata*), winter fat (*Krascheninnikovia lanata*), spiny hop-sage (*Grayia spinosa*), saltbush (*Atriplex* spp.), golden linanthus (*Linanthus aureus*), Mediterranean grass (*Schismus arabicus*), box thorn (*Lycium* spp.), and several other plant species (Best 1995).

Winter fat, spiny hop-sage, and saltbush are thought to make up approximately 60% of the species' shrub diet, indicating that these are important food sources when forbs are unavailable. These diet data are based on observations in the northern part of the species' range, and the extent that they are the same or differ in the southern part of the range has not been analyzed, apart from limited observations.

MGS dig burrows in sandy and gravelly soils on flat to moderately sloping terrain. The burrows are used to avoid predators and high temperatures, and for aestivating during winter months.

MGS are active only during the spring-summer months and spend most of the year (approximately seven months) below ground.

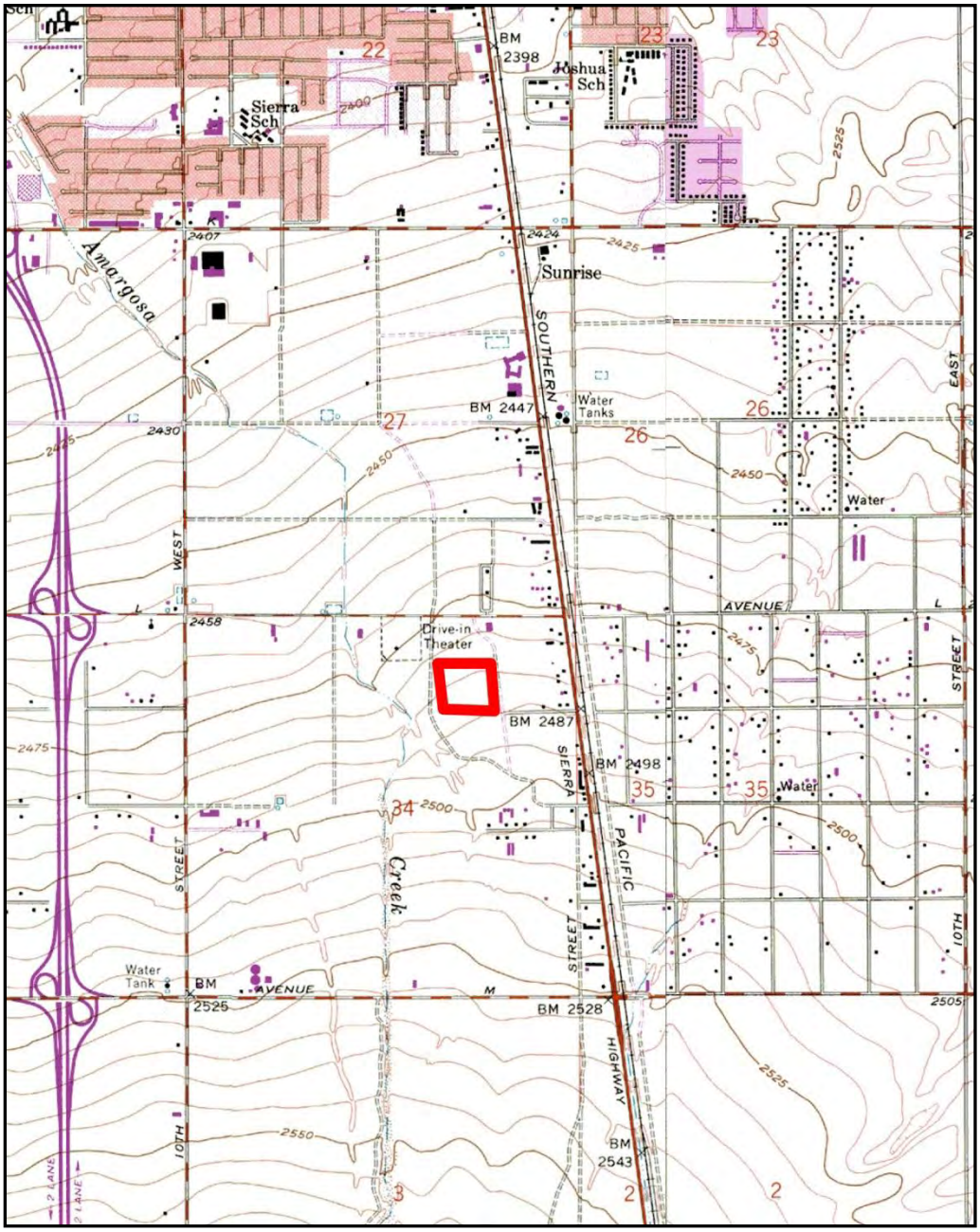

Figure 1. Project site on a topographic map

Figure 2. Project site on a regional aerial photo.


Figure 3. Project site on an aerial photo.

Methods

A habitat assessment was carried out on May 9, 10, and 11, 2022 under mild weather (sunny to moderately cloudy with temperatures from 60 to 65°F and 2-6 miles per-hour winds). The assessment examined soil, vegetation, topographic and disturbance features to assess the suitability of habitat for MGS on the Project site.

A literature review was carried out on MGS in the region based on the following sources:

- Records in the California Natural Diversity Database (CNDDB, CDFW 2022) and an online database of museum mammal specimens (Vertnet 2022); and
- Summaries of MGS survey trends in the project region for the periods 2013-2020, 2008-2012, and 1998-2007 (Leitner 2008, 2015, and 2021); and
- The California Department of Fish and Wildlife Mohave ground squirrel Conservation Strategy (CDFW 2019).

Results

The site is in a suburban area of Lancaster near the northern boundary of Palmdale and west of Sierra Highway. The immediate vicinity of the site contains a mix of developed land uses to the north, east and southeast, and disturbed vacant lands to the northwest, west, and south (Figure 2). The site is within an area bordered by major highways: Ave L to the north, Sierra Highway to the east, Highway 14 to the west, and W Ave M to the south.

The main plant community on the site is sparse, disturbed *Ericameria nauseosa* shrubland alliance, with disturbed areas along the dirt roads and elsewhere (photos 1-4). The site appears to have been mechanically disturbed in the past based on disturbance to the soil surface, which removed native shrub species. The main shrub is rubber rabbitbrush (*Ericameria nauseosa*) with some fourwing saltbush (*Atriplex canescens canescens*) and grass cover of sparse foxtail chess (*Bromus madritensis rubens*), cheatgrass (*Bromus tectorum*), and Arabian schismus (*Schismus arabicus*). Cooper's box thorn (*Lycium cooperi*) and creosote bush (*Larrea tridentata*) occur on the site in low numbers, and two Joshua trees (*Yucca brevifolia*).

Mohave ground squirrel habitat suitability

The project site is located in suburban area of Lancaster, has a history of ground disturbance, and is currently dominated by sparse, disturbed rubber rabbitbrush and disturbed lands that are unsuitable for MGS. The two land covers on the project site lack plants preferred by MGS for foraging.

History of MGS in the Project Region

Figure 4 shows MGS occurrences from the vicinity of the site (occurrences nearest to the project site are shown as green dots and further records are shown as red dots), obtained from the CNDDB (CDFW 2022). The nearest MGS records are as follows:

- A museum record from 1920 located 1.25 miles northeast of the site (occurrence 26 in the CNDDB). The CNDDB references an apparent visual sighting (i.e., not a trapping record) from this location in 1984; subsequent live-trapping surveys from this site in 1991 and 2005 were negative for MGS;

- Museum records 4.35 miles south/southeast of the site from 1920, 1931, and 1944 (occurrence 24 in the CNDDB);

- Museum records 4.35 miles south/southeast of the site from 1920, 1931, and 1944 (occurrence 24 in the CNDDB);

- Museum records 6.65 miles southeast of the site from 1931 and 1934 (occurrence 45 in the CNDDB); and

- Trapping records 6.1 miles southeast of the site in the period 1973-1977 (occurrence 134).

MGS Survey Results in Project Region from 1998 to 2020

Leitner (2008, 2015, 2021) summarized the results from all MGS surveys across the species range over three time periods. The survey results for the project region are as follows:

- In the 1998-2007 period, Leitner (2008) showed 15 or more MGS live-trapping surveys in the Palmdale-Lancaster area, which yielded no MGS captures.

- In the 2008 to 2012 period, Leitner (2015) showed eight MGS live-trapping surveys in the Palmdale-Lancaster area, which yielded no MGS captures; and

- In the 2013-2020 period, Leitner (2021) showed three MGS live-trapping surveys in the Palmdale-Lancaster area, which yielded no MGS captures.

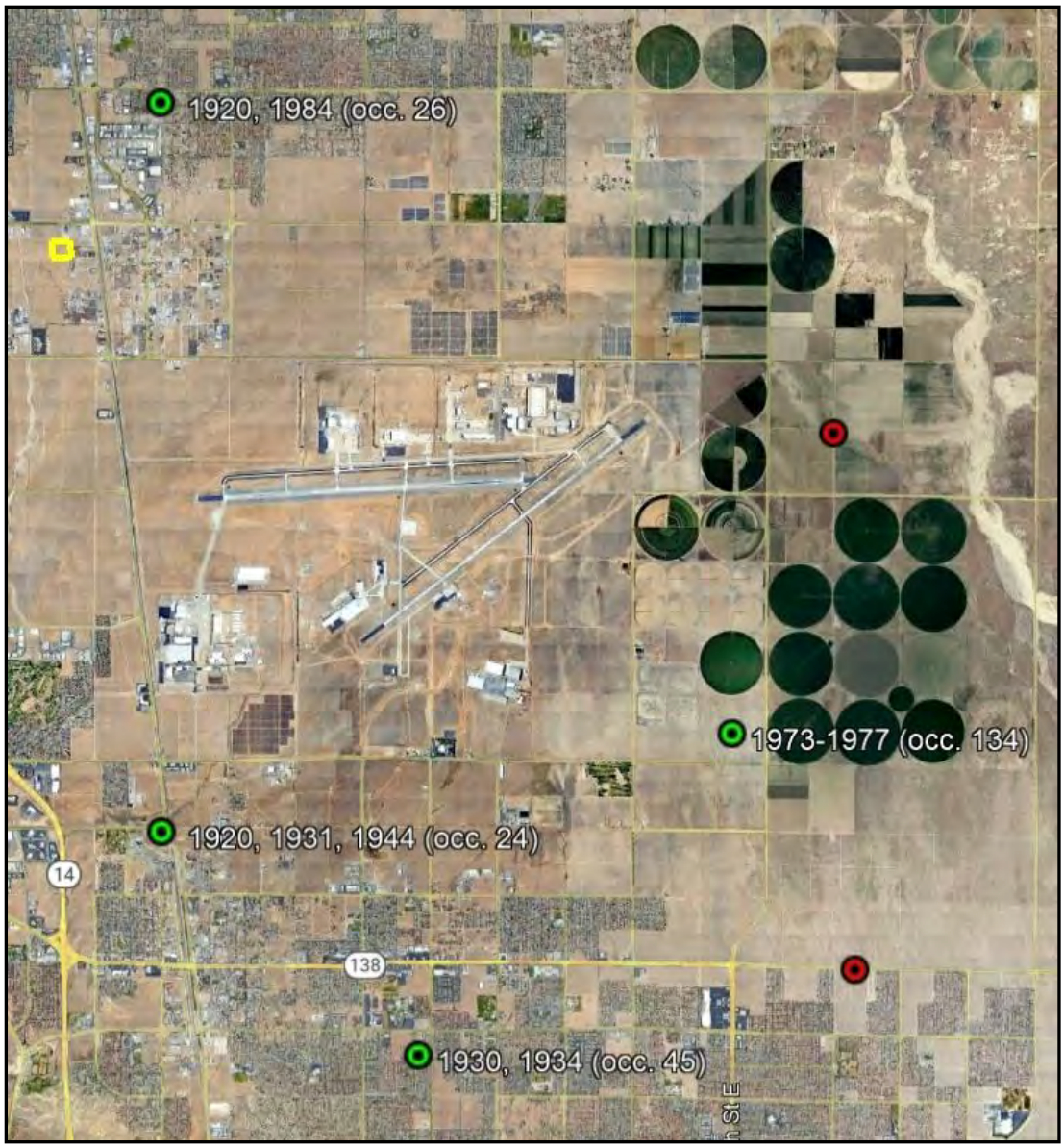

Figure 4. MGS occurrences around Project site (yellow polygon). The four nearest MGS records to the Project site are shown as green circles (with year of record and CNDDB occurrence number). MGS records further from project site shown as red circles.

Discussion

Desert scrub habitat dominated by rubber rabbitbrush is poor quality habitat for MGS, but the sparse distribution of this and other plants on the site indicate that this is unsuitable habitat for MGS. The small area, its proximity to developed and other unsuitable MGS habitats, and the site's fragmentation by major highway corridors support the conclusion that the site is unsuitable for MGS. The few historical MGS records known from the site vicinity date from 1920 to 1977. Numerous protocol or regional trapping surveys carried out in the area from 1998 to 2020 have not yielded any MGS captures or sightings. These data suggest that MGS is unlikely to occur on the site or the immediate vicinity.

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Appendix 1. Site photos

Photo 1. View of project site from southeastern corner, looking east

Photo 2. View of project site from south-central border, looking northwest

Photo 3. View of project site from western border, looking east

Photo 4. View of project site from northern border, looking south