Biological Resources Technical Report

Pacific Palmdale Project

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Table of Contents

SECTION **PAGE NO.**

Acronyms and Abbreviations iv

1 Introduction 1
- 1.1 Project Location 1
- 1.2 Project Description 1

2 Regulatory Context 7
- 2.1 Federal Regulations 7
  - 2.1.1 Federal Endangered Species Act 7
  - 2.1.2 Migratory Bird Treaty Act 7
  - 2.1.3 Bald and Golden Eagle Protection Act 8
  - 2.1.4 Clean Water Act 8
  - 2.1.5 West Mojave Plan 9
- 2.2 State Regulations 9
  - 2.2.1 California Endangered Species Act 9
  - 2.2.2 California Fish and Game Code 11
  - 2.2.3 California Desert Native Plant Act 12
  - 2.2.4 California Environmental Quality Act 12
- 2.3 Local Regulations 13

3 Methods 15
- 3.1 Literature Review 15
- 3.2 General Field Reconnaissance Surveys 15
- 3.3 Special-Status Plant and Wildlife Species Assessment 16
- 3.4 Rare Plant Surveys 17
- 3.5 Joshua Tree Survey 18
- 3.6 Burrowing Owl Surveys 18
- 3.7 Mohave Ground Squirrel Protocol Surveys 19

4 Environmental Setting 21
- 4.1 Land Use 21
- 4.2 Climate 21
- 4.3 Topography 21
- 4.4 Hydrology 21
- 4.5 Soils 21

5 Results 23
- 5.1 Vegetation Communities and Land Covers 23
  - 5.1.1 Native and Naturalized Vegetation Communities 27

5.1.2 Disturbed and Developed Land Cover Types 28
5.2 Special-Status Plant Species 28
5.2.1 California Desert Native Plants 29
5.3 Special-Status Wildlife Species 29
5.4 Wildlife Corridors and Nurseries 36
5.5 Jurisdictional Wetlands and Waters 37
5.6 Local, Regional, or State Habitat Conservation Plans 37
6 Project Impacts 39
6.1 Definition of Impacts 39
6.1.1 Direct Permanent Impacts 39
6.1.2 Direct Temporary Impacts 39
6.1.3 Indirect Impacts 39
6.1.4 Explanation of Findings of Significance 39
6.2 Impact BIO-1: Special-Status Species 41
6.2.1 Impacts to Special-Status Plants 41
6.2.2 Impacts to Special-Status Wildlife 43
6.3 Impact BIO-2: Riparian Habitat and Sensitive Communities 46
6.3.1 Direct Impacts 46
6.3.2 Indirect Impacts 47
6.4 Impact BIO-3: Jurisdictional Wetlands and Waters 47
6.4.1 Direct Impacts 47
6.4.2 Indirect Impacts 48
6.5 Impact BIO-4: Wildlife Corridors and Nurseries 49
6.6 Impact BIO-5: Local Policies or Ordinances 49
6.7 Impact BIO-6: HCP/NCCP 49
7 Mitigation Measures 51
8 References 59

TABLES

Table 1. Vegetation Communities and Land Covers within the Project Site and Study Area 23
Table 2. Special-Status Wildlife Species Present or with a Moderate Potential to Occur in the Study Area 33
Table 3. Impacts to Sensitive Vegetation Communities within the Project Site 47

FIGURES

Figure 1. Project Location 2
Figure 2. Site Plan 4
Figure 3. Vegetation Communities and Land Cover 24
Figure 4. Western Joshua Tree 30

APPENDICES

A. Mohave Ground Squirrel Protocol Survey Results
B. Photo Exhibit
C. Plant and Wildlife Compendia
D. Assessment of Special-Status Plant Species Potential to Occur in the Study Area
E. Western Joshua Tree Conservation Act Incidental Take Permit Application Package
F. Assessment of Special-Status Wildlife Species Potential to Occur in the Study Area

Acronyms and Abbreviations

Acronym/Abbreviation	Definition
CDFW	California Department of Fish and Wildlife
CEQA	California Environmental Quality Act
CESA	California Endangered Species Act
CNDDB	California Natural Diversity Database
CNPS	California Native Plant Society
CRPR	California Rare Plant Rank
CWA	Clean Water Act
Esri	Environmental Systems Research Institute
FESA	Federal Endangered Species Act
GIS	geographic information system
HCP	habitat conservation plan
IPaC	Information for Planning and Conservation System
ISA	International Society of Arboriculture
NCCP	natural community conservation plan
NPDES	National Pollutant Discharge Elimination System
NRCS	Natural Resources Conservation Service
OHWM	ordinary high water mark
SSC	California Species of Special Concern
SWPPP	Storm Water Pollution Prevention Plan
USACE	U.S. Army Corps of Engineers
USDA	U.S. Department of Agriculture
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

1 Introduction

This report presents the findings of a biological resources assessment conducted by Dudek for the proposed Pacific Palmdale Project (Project). The purpose of this assessment was to evaluate the existing biological conditions of the Project site and a 100-foot buffer (study area), and potential impacts to sensitive biological resources associated with the proposed Project. This report is prepared at a level of detail sufficient to address California Environmental Quality Act (CEQA) requirements, specifically the biological thresholds of significance included in Appendix G of the CEQA Guidelines, as well as identifying the potential need for permits for sensitive resources protected under federal and state regulations.

1.1 Project Location

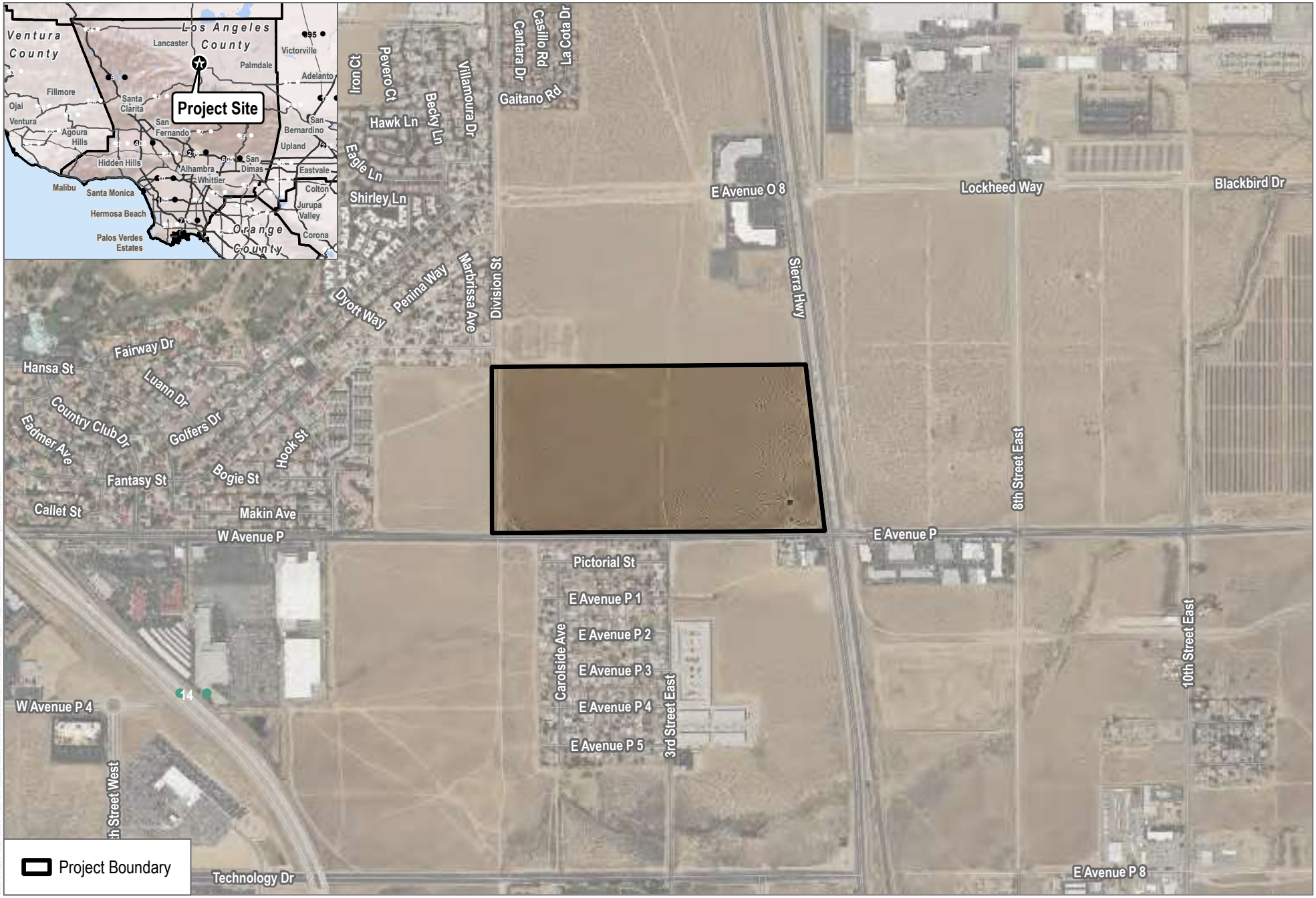
The Project site is in the north-central area of Palmdale, within northwestern Los Angeles County, California. Palmdale is bounded by the City of Lancaster and the unincorporated community of Quartz Hill to the north, the unincorporated communities of Littlerock and Lake Los Angeles to the east, the unincorporated community of Acton to the south, and the unincorporated community of Leona Valley to the west. The Project site is located at the northeast corner of West Rancho Vista Boulevard and Division Street, north of West Rancho Vista Boulevard, east of Division Street, south of Avenue O-12, and west of Sierra Highway, as shown in Figure 1, Project Location.

The Project includes Assessor's Parcel Numbers 3006-27-001, -002, -003, -004, and -005, plus the areas in between these parcels and portions of the adjacent Division Street, for a total of 74.82 gross acres. Regional access to the Project site is provided via State Route (SR) 14 and SR 138. The Project site is bounded to the south by West Rancho Vista Boulevard, to the west by Division Street, to the east by Sierra Highway, and to the north by vacant land. The Metrolink railroad is located directly east of the Project site, parallel to Sierra Highway.

1.2 Project Description

The Project site would be developed with one new industrial building, approximately 1,000,000 square feet in size, located in the central area of the Project site, a detention basin, as well as supporting ancillary uses and landscaping, as shown in Figure 2, Site Plan.

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SOURCE: Bing Maps 2023, Open Street Map 2019

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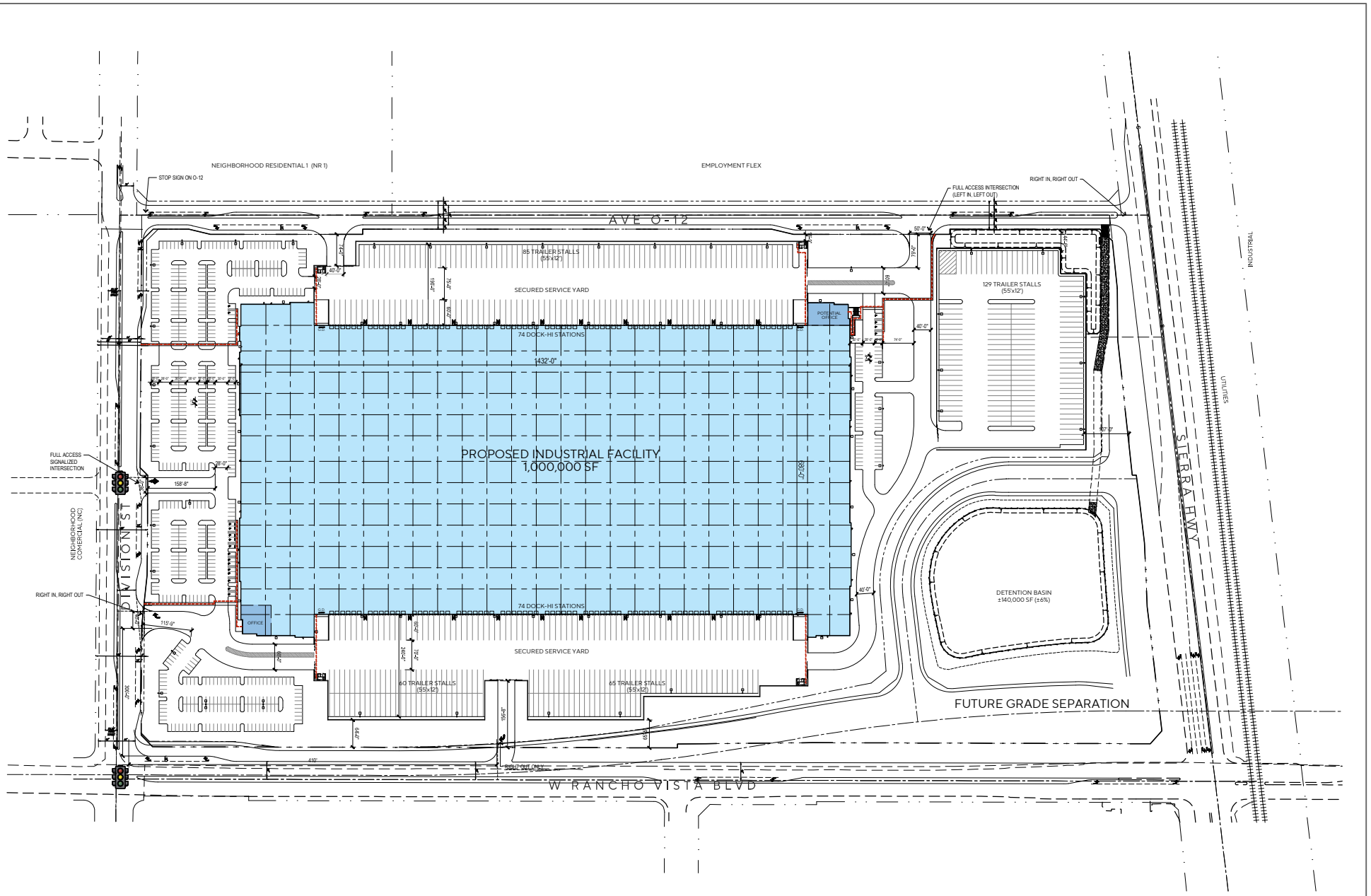
0 500 1,000 Feet

FIGURE 1

Project Location

Pacific Palmdale Center

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SOURCE: AO Architecture 2025

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FIGURE 2

Site Plan

Pacific Palmdale Center Project

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2 Regulatory Context

This section describes the regulatory framework relevant to the Project.

2.1 Federal Regulations

2.1.1 Federal Endangered Species Act

The federal Endangered Species Act (FESA) of 1973 (16 USC 1531 et seq.), as amended, is administered by the U.S. Fish and Wildlife Service (USFWS) for most plant and animal species, and by the National Oceanic and Atmospheric Administration National Marine Fisheries Service for certain marine species. FESA is intended to provide a means to conserve the ecosystems upon which endangered and threatened species depend, and to provide programs for the conservation of those species, thus preventing extinction of plants and wildlife. FESA 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 FESA, it is unlawful to take any listed species; "take" is defined as "harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct."

FESA allows for the issuance of incidental take permits for listed species under Section 7, which is generally available for projects that also require other federal agency permits or other approvals, and under Section 10, which provides for the approval of habitat conservation plans on private property without any other federal agency involvement. Upon development of a habitat conservation plan, USFWS can issue incidental take permits for listed species.

2.1.2 Migratory Bird Treaty Act

The Migratory Bird Treaty Act (MBTA) regulates or prohibits taking, killing, possession of, or harm to migratory bird species listed in Title 50, Section 10.13 of the Code of Federal Regulations. The MBTA is an international treaty for the conservation and management of bird species that migrate through more than one country and is enforced in the United States by the U.S. Fish and Wildlife Service. Hunting of specific migratory game birds is permitted under the regulations listed in Title 50, Section 20 of the Code of Federal Regulations. The MBTA was amended in 1972 to include protection for migratory birds of prey (raptors). On December 22, 2017, the Department of Interior issued a legal opinion (M-Opinion 37050) that interpreted the above prohibitions as only applying to direct and purposeful actions of which the intent is to kill, take, or harm migratory birds; their eggs; or their active nests. Incidental take of birds, eggs, or nests that are not the purpose of such an action, even if there are direct and foreseeable results, was not prohibited. On January 7, 2021, the USFWS published a final rule (the January 7th rule) that codified the previous administration's interpretation, which after further review was determined to be inconsistent with the majority of relevant court decisions and readings of the MBTA's text, purpose, and history. On May 7, 2021, USFWS published a proposed rule to revoke the January 7th rule, which would result in a return to implementing the statute as prohibiting incidental take. On July 19, 2021, the USFWS announced the availability of two revised economic analysis documents for public review that evaluate the potential for the proposed rule to impact small entities, including businesses, governmental jurisdictions, and other organizations. The public review period on these documents ended on August 19, 2021. A final rule revoking the January 7th rule was published on October 4, 2021, and went into effect on December 3, 2021. In their summary of the October 4, 2021 final rule, the USFWS explained

that "the immediate effect of this final rule is to return to implementing the MBTA as prohibiting incidental take and applying enforcement discretion, consistent with judicial precedent and longstanding agency practice prior to 2017" (86 FR 54642).

2.1.3 Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) (16 USC 668 et seq.) provides for the protection of both bald and golden eagles and prohibits the take, possession, and transportation of these species except pursuant to federal regulations. The BGEPA defines "take" as any action that would "pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, destroy, molest, or disturb" bald and golden eagles, including parts, nests, or eggs. The term "disturb" is defined as "to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause, based on the best scientific information available, 1) injury to an eagle, 2) a decrease in its productivity, by substantially interfering with normal breeding, feeding, or sheltering behavior, or 3) nest abandonment, by substantially interfering with normal breeding, feeding, or sheltering behavior." (50 CFR 22.6). Under BGEPA, it is also illegal to "sell, purchase, barter, trade, import, or export, or offer for sale, purchase, barter, or trade, at any time or in any manner, any bald eagle or any golden eagle, or the parts, nests, or eggs" of these birds (50 CFR 22.12).

Pursuant to 50 CFR 22.26, an amendment to BGEPA was published in December 2016, allowing for a permit to be obtained that authorizes take of bald eagles and golden eagles where the take is "compatible with the preservation of the bald eagle and the golden eagle; is necessary to protect an interest in a particular locality; is associated with, but not the purpose of, the activity; and cannot practicably be avoided." In February 2024, the latest amendment to the BGEPA (89 FR 9920–9965) revised the regulations for the issuance of permits for eagle incidental take and eagle nest take. These regulations provided a number of revisions including creating general permit options for qualifying wind-energy generation projects, power line infrastructure, activities that may disturb breeding bald eagles, and bald eagle nest take. The general permit options are intended to "simplify and expedite the permitting process for activities that have relatively consistent and low risk to eagles and well-established avoidance, minimization, and compensatory mitigation measures." Projects that do not meet the eligibility criteria for general permits may still apply for specific permits. The revised regulations created a tier structure within specific permits with tier levels related to the complexity of the project. In addition, the regulations provide allowances for fulfilling compensatory mitigation requirements through the purchase of "eagle credits" from USFWS approved in-lieu fee programs and conservation banks that will be authorized for particular Eagle Management Units. Other revisions include narrowing the definition of ''eagle nest'' to exclude nest structures on nesting substrates that fail due to natural circumstances, such as a fallen tree, which result in a nest structure that will no longer and never again be functional or used by eagles; revising the definition for 'in-use nest'' to clarify that the eggs in an "in-use nest" must be viable and do not include non-viable eggs that are present, for example, in an alternate nest outside of the breeding season; and revised permit fees.

2.1.4 Clean Water Act

The objective of the Clean Water Act (CWA) is to restore and maintain the chemical, physical, and biological integrity of the nation's waters. Under Section 404 of the CWA, the USACE has the authority to regulate activities that could discharge fill or dredge material or otherwise adversely modify wetlands or other waters of the United States. The USACE implements the federal policy embodied in Executive Order 11990, which, when implemented, is intended to result in no net loss of wetland values or function.

The State Water Resources Control Board has authority over wetlands through Section 401 of the CWA, as well as the Porter–Cologne Act, California Code of Regulations Section 3831(k), and California Wetlands Conservation Policy. The CWA requires that an applicant for a Section 404 permit (to discharge dredge or fill material into waters of the United States) first obtain certification from the appropriate state agency stating that the fill is consistent with the state's water quality standards and criteria. In California, the authority to either grant certification or waive the requirement for permits is delegated by the State Water Resources Control Board to the nine regional boards. The Lahontan Regional Water Quality Control Board has authority for Section 401 compliance in the Project site region. A request for certification is submitted to the regional board at the same time that an application is filed with the USACE.

2.1.5 West Mojave Plan

The West Mojave Plan was envisioned to develop management strategies for the Mojave desert tortoise ("desert tortoise"), Mohave ground squirrel, and more than 100 other sensitive plants and animals. The planning area encompassed approximately 9.3 million acres in Inyo, Kern, Los Angeles, and San Bernardino Counties, including approximately 3.3 million acres of public lands administered by the Bureau of Land Management (BLM), approximately three million acres of private lands, and approximately 102,000 acres administered by the State of California (BLM 2006). The remaining land is military land administered by the Department of Defense. The West Mojave Plan was proposed to conserve those species throughout the western Mojave Desert, while streamlining the West Mojave Plan for compliance with the regulatory requirements of FESA and the California Endangered Species Act (CESA). Only the BLM elements of the West Mojave Plan were adopted, resulting in a number of amendments to BLM's CDCA Plan. In 2019, the BLM amended the CDCA plan for the West Mojave Route Network Project to address motor vehicle access, recreation, and livestock grazing elements in the West Mojave Planning Area (BLM 2019).

2.2 State Regulations

2.2.1 California Endangered Species Act

The California Endangered Species Act (CESA) (California Fish and Game Code Sections 2050–2068) provides protection and prohibits the take of plant, fish, and wildlife species listed by the State of California. Unlike FESA, under CESA, state-listed plants have the same degree of protection as wildlife, but insects and other invertebrates may not be listed. Take is defined similarly to FESA and is prohibited for both listed and candidate species. Take authorization may be obtained by a project applicant from the California Department of Fish and Wildlife (CDFW) under CESA Section 2081, which allows take of a listed species for educational, scientific, or management purposes. To comply with Section 2081, private developers consult with CDFW to develop a set of measures and standards for managing the listed species, including full mitigation for impacts, funding of mitigation implementation, and monitoring of mitigation measures.

Western Joshua Tree

On October 21, 2019, the California Fish and Game Commission (Commission) received a petition from the Center for Biological Diversity to list western Joshua tree (*Yucca brevifolia*). On November 1, 2019, the Commission referred the petition to CDFW for evaluation. CDFW evaluated the scientific information presented in the petition and other relevant information possessed by CDFW at the time of review and prepared a report for submittal to the Commission (CDFW 2020). The report states that CDFW recommended that the Commission accept the petition for further consideration of western Joshua tree under the CESA. On September 22, 2020, the Commission accepted

the candidacy proposal for western Joshua tree, effective October 9, 2020. When a plant or wildlife species is granted candidacy under the CESA, the species is given the same protection as a threatened or endangered species while the Commission evaluates whether formal listing as threatened or endangered under the CESA is warranted.

In listing western Joshua tree as a candidate species under CESA, the Commission directed CDFW staff to evaluate whether the species should be formally listed under CESA. In March 2022, CDFW staff presented its findings to the Commission and recommended against the listing, citing the species widespread distribution and lack of data regarding the extent to which climate changes are expected to affect the species. This information was presented to the Commission on June 15–16, 2022. The Commission voted on the proposed listing at this meeting, but the vote resulted in a 2–2 tie. The Commission discussed western Joshua tree's listing status at its October 12–13, 2022 meeting; however, it was decided at this meeting to extend Joshua tree's candidate status discussion until their February 23, 2023, meeting, which was anticipated to be the final meeting before a listing decision was made. On July 1, 2023, the Western Joshua Tree Conservation Act (WJTCA) was passed. While western Joshua tree is a candidate species, take for western Joshua tree can be received through payment of pre-determined mitigation fees.

The WJTCA introduces a streamlined permitting framework that applies to specific development activities and mandates the collection of mitigation fees. These fees are intended to facilitate the acquisition and preservation of western Joshua tree habitat, as well as to support conservation measures aimed at safeguarding the western Joshua tree. The underlying goal is to counterbalance the adverse impacts on western Joshua trees resulting from authorized projects and to promote species conservation on a landscape scale.

Under the WJTCA, CDFW is authorized to perform the following key functions:

- Issue permits for the trimming and removal of hazardous or deceased western Joshua trees.
- Grant incidental take permits for western Joshua trees, contingent upon the fulfillment of specific conditions.
- Establish agreements with counties or cities to delegate limited authority for the issuance of the aforementioned permits, provided that predetermined conditions are met.

Furthermore, the WJTCA instructed CDFW to develop a comprehensive conservation plan for the western Joshua tree by the conclusion of the year 2024. The California Fish and Game Commission released the draft Western Joshua Tree Conservation Plan in December 2024 for public comment. The final Western Joshua Tree Conservation Plan was approved by the Commission on August 13, 2025.

The WJTCA institutes two categories of mitigation fees: reduced fees and standard fees, depending on the geographical location, as defined in the California Department of Fish and Game Code (Section 1927). The WJTCA empowers the CDFW to issue permits for the incidental take of one or more western Joshua trees, subject to compliance with stipulated conditions. Permit holders may opt to remit specified fees in lieu of undertaking mitigation activities. Additionally, the WJTCA authorizes the CDFW to issue permits for the removal of deceased western Joshua trees and the trimming of live western Joshua trees under specific circumstances.

Notably, all in-lieu fees collected under the WJTCA are directed to the Western Joshua Tree Conservation Fund, with the explicit purpose of allocation to the CDFW. These funds are designated exclusively for the acquisition, conservation, and management of western Joshua tree conservation lands, as well as the execution of other initiatives designed to safeguard the western Joshua tree.

Permitting

The initial step in the project permitting process necessitates the comprehensive survey and documentation of western Joshua trees located on a project site as well as within a 50-foot radius surrounding it. This census must adhere to precise specifications outlined on the CDFW's official website.

Simultaneously, a permit application, available on the CDFW's website, must be completed by the project proponent. The application mandates that the applicant complies with the California Environmental Quality Act (CEQA). Notably, there are no stipulated statutory deadlines governing the permitting process; however, CDFW is committed to expeditiously processing the applications upon receipt. Upon successful processing of the application by CDFW, the permittee will be issued an invoice for the mandatory mitigation fee. This fee is to be remitted via check or money order to CDFW, with the invoice securely attached, following the precise instructions provided by CDFW.

2.2.2 California Fish and Game Code

Fully Protected Species

Sections 3505, 3511, 4700, 5050, and 5515 of the California Fish and Game Code outline protections for fully protected species of mammals, birds, reptiles, amphibians, and fish. Species that are fully protected by these sections may not be taken or possessed at any time. CDFW cannot issue permits or licenses that authorize the "take" of any fully protected species, except under certain circumstances, such as scientific research and live capture and relocation of such species pursuant to a permit for the protection of livestock. Furthermore, it is the responsibility of the CDFW to maintain viable populations of all native species. Toward that end, the CDFW has designated certain vertebrate species as Species of Special Concern, because declining population levels, limited ranges, and/or continuing threats have made them vulnerable to extinction.

Section 1600–1616

Under California Fish and Game Code Sections 1600–1616, CDFW has the authority to regulate work that will substantially divert or obstruct the natural flow of, or substantially change or use any material from, the bed, channel, or bank of any river, stream, or lake. CDFW also has the authority to regulate work that will deposit or dispose of debris, waste, or other material containing crumbled, flaked, or ground pavement where it may pass into any river, stream, or lake. These regulations take the form of a requirement for a Lake or Streambed Alteration Agreement and are applicable to all projects. Applications to CDFW must include a complete, certified CEQA document.

CDFW jurisdiction includes ephemeral, intermittent, and perennial watercourses (including dry washes) and lakes characterized by the presence of definable bed and banks, and existing fish or wildlife resources. CDFW takes jurisdiction to the top of bank of the stream or the limit of the adjacent riparian vegetation, which may include oak woodlands in canyon bottoms. Historical court cases have further extended CDFW jurisdiction to include watercourses that seemingly disappear but reemerge elsewhere. Under the CDFW definition, a watercourse need not exhibit evidence of an ordinary high-water mark (OHWM) to be claimed as jurisdictional. CDFW does not have jurisdiction over ocean or shoreline resources.

California Native Plant Protection Act

The Native Plant Protection Act of 1977 (see Section 1900 et seq. of the California Fish and Game Code) directed CDFW to carry out the Legislature's intent to "preserve, protect and enhance rare and endangered plants in this State." The Native Plant Protection Act gave the Commission the power to designate native plants as "endangered" or "rare" and protect endangered and rare plants from take. CESA expanded the original Native Plant Protection Act and enhanced legal protection for plants, but the Native Plant Protection Act remains part of the California Fish and Game Code. To align with federal regulations, CESA created the categories of "threatened" and "endangered" species. It converted all "rare" animals into the act as threatened species but did not do so for rare plants. Thus, there are three listing categories for plants in California: rare, threatened, and endangered. Because rare plants are not included in CESA, mitigation measures for impacts to rare plants are specified in a formal agreement between CDFW and a project proponent.

Nesting Birds

Section 3503 of the California Fish and Game Code states that it is unlawful to take, possess, or needlessly destroy the nests or eggs of any bird, except as otherwise provided by this code or any regulation made pursuant thereto. Section 3503.5 protects all birds of prey (raptors) and their eggs and nests. Section 3511 states that fully protected birds or parts thereof may not be taken or possessed at any time. Section 3513 states that it is unlawful to take or possess any migratory non-game bird as designated in the MBTA.

2.2.3 California Desert Native Plant Act

The purpose of the California Desert Native Plants Act (CDNPA) is to protect certain species of California desert native plants (i.e., species in the families Agavaceae, Cacti, Fouquieriaceae; species in the genera *Prosopis* and *Parkinsonia* (*Cercidium*); and the species *Acacia greggii*, *Atriplex hymenelytra*, *Dalea spinosa*, and *Olneya tesota*) from unlawful harvesting. The CDNPA only applies within the boundaries of Imperial, Inyo, Kern, Los Angeles, Mono, Riverside, San Bernardino, and San Diego Counties. Within these counties, the CDNPA prohibits the harvest, transport, sale, or possession of specific native desert plants unless a person has authorization from the county sheriff or commissioner and the county will charge a fee to the project proponent.

2.2.4 California Environmental Quality Act

CEQA requires identification of a project's potentially significant impacts on biological resources, and ways that such impacts can be avoided, minimized, or mitigated. CEQA also provides guidelines and thresholds for use by lead agencies for evaluating the significance of proposed impacts.

Special-Status Plants and Wildlife

The State of California CEQA Guidelines (CEQA Guidelines) Section 15380(b)(1) defines endangered animals or plants as species or subspecies whose "survival and reproduction in the wild are in immediate jeopardy from one or more causes, including loss of habitat, change in habitat, overexploitation, predation, competition, disease, or other factors." A rare animal or plant is defined in CEQA Guidelines Section 15380(b)(2) as a species that, although not presently threatened with extinction, exists "in such small numbers throughout all or a significant portion of its range that it may become endangered if its environment worsens; or … [t]he species is likely to become endangered within the foreseeable future throughout all or a significant portion of its range and may be considered 'threatened' as that term is used in the federal Endangered Species Act." Additionally, an animal or plant may be presumed to

be endangered, rare, or threatened if it meets the criteria for listing, as defined further in CEQA Guidelines Section 15380(c).

Special-Status Vegetation Communities

Section IV, Appendix G, Environmental Checklist Form, of the CEQA Guidelines requires an evaluation of impacts to "any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the CDFW or the USFWS."

Porter–Cologne Water Quality Control Act

Pursuant to provisions of the Porter–Cologne Water Quality Act, the Regional Water Quality Control Board regulates discharging waste, or proposing to discharge waste, within any region that could affect a water of the state (California Water Code, Section 13260[a]). The State Water Resources Control Board defines a water of the state as "any surface water or groundwater, including saline waters, within the boundaries of the state" (California Water Code, Section 13050[e]).

2.3 Local Regulations

Palmdale Municipal Code - Chapter 14.04 Joshua Tree and Native Desert Vegetation Preservation

This municipal code seeks to protect and preserve desert vegetation, and particularly Joshua trees, so as to retain the unique natural desert aesthetics in some areas of the city. Desert vegetation consists of California juniper (*Juniperus californica*) and other living plants identified pursuant to the California Desert Native Plants Act as protected or designated on any state or federal rare and endangered species list.

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3 Methods

Data regarding biological resources present within the study area were obtained through a review of pertinent literature, field reconnaissance, and a jurisdictional waters delineation.

3.1 Literature Review

The following data sources were reviewed to assist with the assessment of biological resources:

- CDFW California Natural Diversity Database (CNDDB) (CDFW 2025a)
- USFWS Information for Planning and Consultation (IPaC) (USFWS 2025a)
- California Native Plant Society (CNPS) Inventory of Rare and Endangered Plants (Inventory) (CNPS 2025a)
- U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2025a)
- CDFW Biogeographic Information and Observation System (CDFW 2025b)

Prior to conducting the field investigation, the CNDDB and CNPS Inventory were queried based on the U.S. Geological Survey (USGS) 7.5-minute topographic quadrangle map for Ritter Ridge, California where the majority of the study area is located, as well as the surrounding eight USGS 7.5-minute quadrangle maps (i.e., Lancaster East, Palmdale, Pacifico Mountain, Del Sur, Lancaster West, Agua Dulce, Acton, and Sleepy Valley). The purpose of this review was to determine whether special-status plant and wildlife species are known to occur in the vicinity of or within the study area.

Other literature reviewed included A Manual of California Vegetation, Online Edition (CNPS 2024b); the California Natural Community list (CDFW 2023a); State and Federally Listed Endangered, Threatened, and Rare Plants of California (CDFW 2025c); State and Federally Listed Endangered and Threatened Animals of California (CDFW 2025d); and the CDFW California Wildlife Habitat Relationships Life History Accounts and Range Maps (CDFW 2025e).

The following available resources were reviewed to assess the potential for jurisdictional waters: aerial photographs (Google Earth 2025; NETR 2025); the USGS Ritter Ridge and Palmdale 7.5-minute topographic quadrangle maps (USGS 2018); the National Hydrography Dataset and Watershed Boundary Dataset (USGS 2025); and the USFWS National Wetland Inventory (USFWS 2025b).

3.2 General Field Reconnaissance Surveys

A Dudek senior biologist conducted an initial field survey on March 11, 2022 to determine the presence of any biological resource constraints. Dudek biologist Eilleen Salas then conducted a general biological resources field survey of the study area on February 22, 2024. There was no cloud cover, wind speeds of zero to four miles per hour, and temperatures ranging from 54 to 62 degrees Fahrenheit (°F). The general biological resources survey was conducted on foot using meandering transects. All plant and wildlife species encountered within the Project site were identified and recorded. Vegetation communities and land covers in the study area were mapped directly in the field.

Vegetation Community and Land Cover Mapping

Vegetation communities and land uses within the study area were mapped in the field using the Environmental Systems Research Institute (Esri) Collector, a mobile data collection application, on a digital aerial-based background (Esri 2025). Following completion of the fieldwork, all vegetation linework was finalized using Esri ArcGIS software and GIS coverage was created. Once in ArcGIS, the acreage of each vegetation community and land cover type within the study area was determined. Vegetation communities within the study area were mapped using CDFW's List of Vegetation Alliances and Associations (or California Natural Community List) (CDFW 2023a), which is based on A Manual of California Vegetation, Second Edition (Sawyer et al. 2009) and A Manual of California Vegetation, Online Edition (CNPS 2025b), where feasible, with modifications made to accommodate the lack of conformity of the observed communities (e.g., developed/disturbed land cover types) using Oberbauer et al. (2008) and Jones and Stokes (1993). Vegetation communities were classified based on site factors, descriptions, distribution, and characteristic species present within an area. Each natural community was mapped to the association level, where feasible. Special-status vegetation communities are those communities identified as high priority for inventory in the California Natural Communities List (CDFW 2023a) by a state rarity ranking of S1, S2, or S3.

Plants

All plant species encountered during the field surveys were identified and recorded. Latin and common names for plant species with a California Rare Plant Rank (CRPR) follow the CNPS Inventory (CNPS 2025a). For plant species without a CRPR, Latin names follow the Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California (Jepson Flora Project 2025), and common names follow the USDA NRCS Plants Database (USDA 2025b). Potential for special-status plant species to occur within the study area was assessed based on known geographic and elevation ranges as well as habitat and soil conditions that are known to support species occurring in the region.

Wildlife

All wildlife species, as detected during the field survey—by sight, calls, tracks, scat, or other signs—were identified and recorded. Binoculars were used to aid in the identification of observed wildlife. No trapping or focused surveys for special-status species or nocturnal species were conducted during the initial general field surveys conducted on March 11, 2022, and February 22, 2024. In addition to species observed, expected wildlife usage of the study area was determined according to known habitat preferences of regional wildlife species and knowledge of their relative distributions in the area. Latin and common names for wildlife species referred to in this report follow Crother (2017) for reptiles and amphibians, American Ornithologists' Union Checklist (AOU 2018) for birds, and Wilson and Reeder (2005) for mammals. Potential for special-status wildlife species to occur within the study area was assessed based on known geographic ranges, the presence/absence of suitable habitat, and other natural history elements that might predict their occurrence.

3.3 Special-Status Plant and Wildlife Species Assessment

Endangered, rare, or threatened plant species as defined in Section 15380(b) of the CEQA Guidelines (14 CCR 15000 et seq.) are referred to as "special-status plant species" and, as used in this report, include (1) plant species listed, proposed for listing, or candidates for listing as endangered or threatened recognized in the context of CESA and the

FESA (CDFW 2025d); and/or (2) plant species with a CRPR of 1 or 2 as designated by CNPS (2025a). Species with a CRPR or 3 or 4 generally do not qualify for protection under CEQA; however, they were considered in this report.

Endangered, rare, or threatened wildlife species as defined in CEQA Guidelines, Section 15380(b) (14 CCR 15000 et seq.), are referred to as "special-status wildlife species" and, as used in this report, include (1) wildlife species listed, proposed for listing, or candidates for listing as endangered or threatened recognized in the context of CESA and FESA (CDFW 2025e); (2) California Species of Special Concern (SSC) as designated by CDFW (2024f); and (3) mammals and birds that are fully protected species as described in the California Fish and Game Code, Sections 4700 and 3511 (CDFW 2024g).

The potential for special-status plant species to occur within the study area was assessed based on known geographic and elevation ranges as well as habitat and soil conditions that are known to support species occurring in the region. Potential for special-status wildlife species to occur within the study area was assessed based on known geographic ranges, the presence/absence of suitable habitat, and other natural history elements that might predict their occurrence. After completion of the reconnaissance surveys, the potential for special-status plant and wildlife species to occur on or near the Project site was summarized according to the following categories. Because not all species are accommodated precisely by a given category (i.e., category definitions may be too restrictive), an expanded rationale for each category assignment is provided:

- Known to occur: the species has been documented in the study area by a reliable source.
- High potential to occur: the species has not been documented in the study area but is known to recently occur in the vicinity of in the study area and suitable habitat is present.
- Moderate potential to occur: the species has not been documented in the study area or in the vicinity, but the study area is within the known range of the species and suitable habitat for the species is present.
- Low potential to occur: the species has not been documented in the vicinity or in the study area, but the study area is within the known range of the species; however, suitable habitat for the species in the study area is of low quality.
- Not expected to occur: the study area and the vicinity are outside the known geographic or elevational range of the species and/or the study area does not support suitable habitat for the species.

3.4 Rare Plant Surveys

Based upon the results of the literature review, reconnaissance survey conducted on February 22, 2024, and special-status plant species assessment, it was determined that a focused rare plant survey was necessary in the study area for Mojave monardella (*Monardella exilis*) and crowned muilla (*Muilla coronata*). Dudek biologists Eilleen Salas and Sharon Zarate conducted the survey on April 24, 2024 during the typical blooming period[1] for the species with a moderate or high potential to occur. Reference sites (local extant CNDDB or CalFlora records of the species with potential to occur) for the two species were checked prior to surveys to ensure target species were in bloom during the surveys. The rare plant surveys were guided by the CNPS Botanical Survey Guidelines (CNPS 2001) and CDFW Protocols for Surveying and Evaluating Impacts to Special Status Native Populations and Sensitive Natural Communities (CDFW 2018). The biologists walked transects in suitable habitat, spaced approximately 5 to 10 meters apart based on the density of vegetative cover, throughout the Project site, plus a 100-foot buffer directly adjacent and surrounding the site (the study area Private properties adjacent to the Project site were examined by

[1] Blooming periods for each target species are provided in Appendix D.

conducting a thorough binocular search. The 100-foot buffer was chosen to ensure 100% coverage of suitable habitat for special-status plant species that may be affected by the proposed project. Digital mobile maps and 200-scale topographic plots of vegetation polygons were utilized to navigate the survey area. Plant species encountered during the field surveys were identified to subspecies or variety, if applicable, to determine sensitivity status. When rare plants were encountered, field personnel recorded data points demarcating the edge of polygon surrounding the population and assessed population numbers using a GPS with sub-meter accuracy.

3.5 Joshua Tree Survey

ELMT Consulting conducted a western Joshua tree census for the Project in 2024 on May 13, 28, 31 and June 5 using CDFW's census Instructions (CDFW 2025h). The entire Project site and a 50-foot buffer were traversed on foot. The 50-foot buffer is the buffer required by CDFW for the census. Joshua tree locations were mapped using a sub-meter GPS. The census included size information that categorized western Joshua tree according to the following size classes:

- Less than one meter in height
- One meter or greater but less than five meters in height
- Five meters or greater in height

Each western Joshua tree stem or trunk arising from the ground was considered an individual tree requiring mitigation, regardless of its proximity to any other western Joshua tree stem or trunk (Fish & G. Code §1927.3, subd. (b)). Each stem or trunk was recorded as a separate tree with its own unique identifier. Dead trees were included in the census and counted for mitigation. Trees recorded within the 50-foot buffer of the Project site were included in the census, but not for mitigation since the individuals would not be directly impacted by the Project.

Additionally, the following information was recorded:

- Mature Trees – Recorded if tree was a "Mature Tree" or not. If tree has multiple branches, it is considered a "Mature Tree." If tree only has a single, unbranched stem/trunk, it was not considered a "Mature Tree."
- Flowers/Fruits – Only recorded "fruit" in the census table if the fruit could be determined from the 2024 growing season. Did not record old fruits that were dark brown or small/undeveloped per CDFW census instructions. Also, if fruits were starting to develop while flowers are present, recorded the tree as having "fruit."
- Photographs – Color photos of each western Joshua tree in the census.

3.6 Burrowing Owl Surveys

A habitat assessment and burrow survey for burrowing owl (*Athene cunicularia*) was conducted on April 24, 2024 and led by Dudek senior biologist Lily Sam. The habitat assessment and burrow survey were conducted per CDFW's recommended methodology (CDFW 2012) and consisted of four biologists walking north-south orientated transects that were spaced 10-meters apart. The survey started at morning civil twilight and was completed by 10:00 am. Offsite areas of the study area are private property, so those areas were scanned using binoculars. All small mammal burrows were checked to determine if the size was appropriate for burrowing owl and to check for individuals and diagnostic sign of the species. Per CDFW's guidance and based upon the negative results of the habitat assessment (no individuals observed, no diagnostic sign of the species [pellets, whitewash, and feathers],

no suitable nesting burrows, and the marginal habitat present due to the scrub-dominated vegetation), it was determined that breeding season use of the site by burrowing owl was not expected; therefore non-breeding season surveys were conducted in October, November, and December of 2024 to determine if migratory or wintering individuals were using the site. The surveys followed CDFW's recommended methodology (CDFW 2012), with four survey passes conducted. The burrows mapped in the April 2024 habitat assessment were checked during each pass and any new burrows were mapped.

3.7 Mohave Ground Squirrel Protocol Surveys

Mohave ground squirrel (*Xerospermophilus mohavensis*) protocol surveys for the Project were conducted by Karla Flores (Scientific Collection Permit [SCP] SC-10572; MOU Principal Investigator) and Karl Fairchild (SCP S-182820007-18333-001; MOU Principal Investigator) of Dipodomys Ecological Consulting in accordance with the Mohave Ground Squirrel Survey Guidelines (CDFW 2023b). The survey consisted of an initial visual survey followed by concurrent live trapping and camera trapping efforts in April, May, and June 2024. The full methodology can be found in Appendix A, Mohave Ground Squirrel Protocol Survey Results.

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4 Environmental Setting

The study area is located within the western Mojave Desert, which is a region containing the urban areas of Palmdale and Lancaster, rural residential, desert plains, dry lakebeds, and scattered mountains. The following describes the existing abiotic conditions of the proposed study area.

4.1 Land Use

The study area consists of undeveloped lands with vegetation throughout. The study area is surrounded by developed roads to the west, south, and east of the study area. The area north of the study area consists of open and semi-undeveloped lands with a portion of a developed parking lot and university building. Disturbed areas in the study area include dirt roads, and the southeastern corner where vegetation was recently removed due to a small fire associated with a human encampment.

4.2 Climate

The western Mojave Desert has a large seasonal temperature variation, with high temperatures averaging approximately 97°F in the summer to low averages of approximately 30°F in winter (Charlton and Rundel 2017). The mean annual precipitation is approximately five inches, with most rainfall occurring from November to March, with late summer monsoon-related rainfall also contributing to the total (Charlton and Rundel 2017).

4.3 Topography

The study area consists of generally open flat land with semi- developed surrounding areas. The highest point, located in the northern half of the study area, is approximately 2,620 feet above mean sea level (amsl), while the lowest point, located in the southwestern portion of the study area, is approximately 2,652 feet amsl (Google 2024).

4.4 Hydrology

The study area is located within the Anaverde Creek Watershed (180902061403) within the Antelope- Fremont Valleys watershed (18090206). The Antelope-Fremont Valleys Watershed is made up of 2,155,258 acres and encompasses Los Angeles County, Kern County, and San Bernardino County. According to the national Wetland Inventory dataset, there are no wetlands or riparian features mapped within the study area.

4.5 Soils

Two soil types have been mapped in the study area by the USDA NRCS Web Soil Survey (USDA 2025a). Adelanto coarse sandy loam, 2% to 5% slopes are found in most of the study area. Hesperia fine sandy loam, 0% to 2% slopes, are located along the southern boundary of the study area. Both are well-drained soils derived from granite (USDA 2025a).

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5 Results

Representative photos of the study area and the biological resources described in this chapter are included in Appendix B, Photo Exhibit.

5.1 Vegetation Communities and Land Covers

A total of three vegetation communities and two land cover types were mapped in the study area during the field surveys conducted by Dudek. These vegetation communities and land cover types are described below. Their acreages are presented in Table 1, Vegetation Communities and Land Covers within the Project site and Study Area, and their spatial distributions are presented in Figure 3, Vegetation Communities and Land Cover Types.

Table 1. Vegetation Communities and Land Covers within the Project Site and Study Area

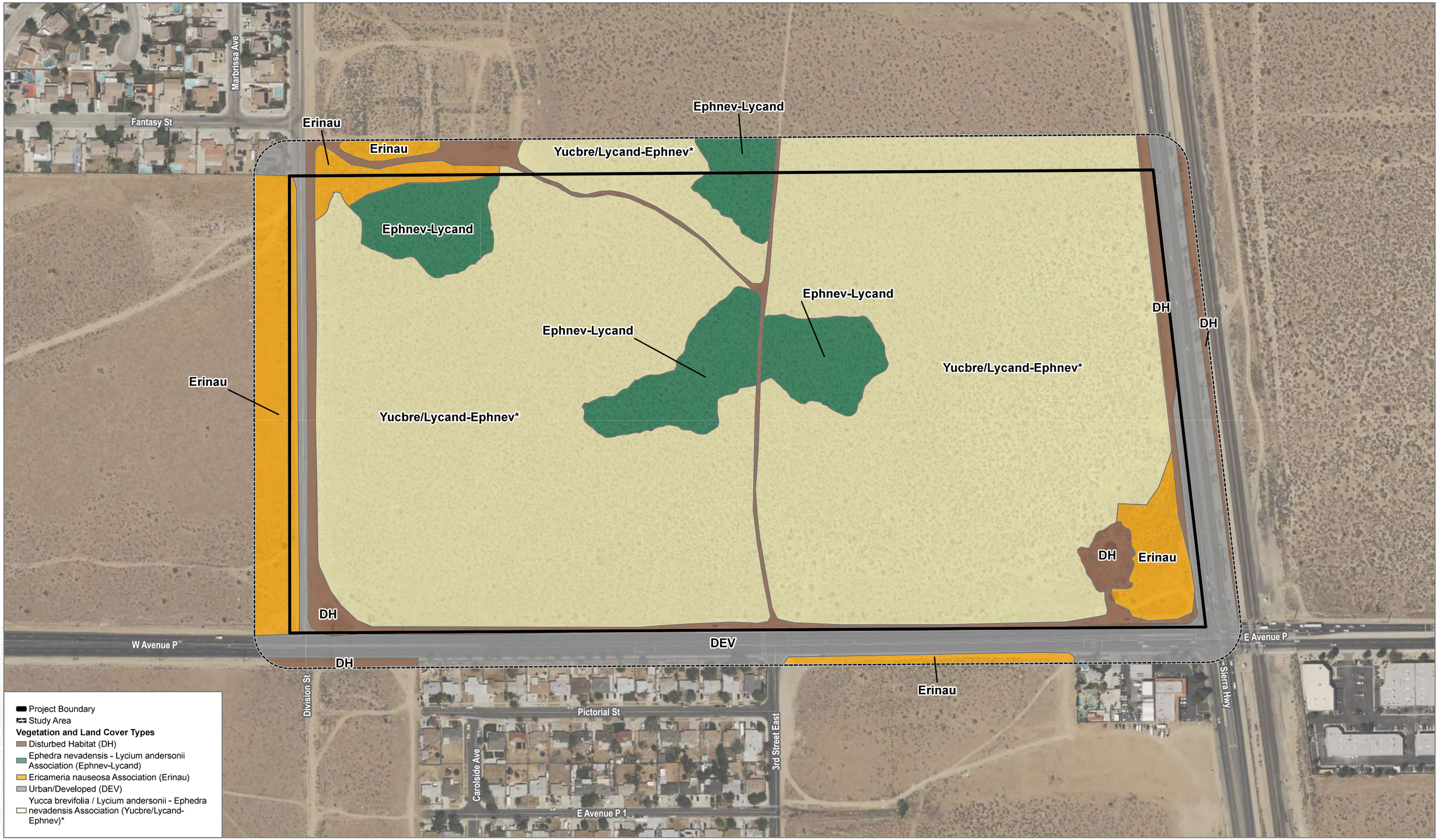
Vegetation Community/ Land Cover	Alliance	Association	Ranking[1]	Project Site Acreage	Study Area Acreage
Vegetation Communities					
Joshua tree woodland	*Yucca brevifolia* Woodland	*Yucca brevifolia / Lycium andersonii-Ephedra nevadensis*	G4/S3	60.78	64.32
Rubber rabbitbrush scrub	*Ericameria nauseosa* Shrubland	*Ericameria nauseosa*	G5/S5	2.62	6.88
Nevada joint fir-Anderson's boxthorn-spiny hop sage scrub	*Ephedra nevadensis-Lycium andersonii-Grayia spinosa* Shrubland	*Ephedra nevadensis-Lycium andersonii*	G5/S3S4[2]	6.61	7.08
			Subtotal	*70.01*	*78.28*
Disturbed and Developed Land Cover Types					
Disturbed Habitat	NA	NA	NA/NA	3.60	5.30
Urban/Developed	NA	NA	NA/NA	1.20	9.48
			Subtotal	*4.81*	*14.78*
			Total	**74.82**	**93.06**

Source: CNPS 2024b.
Notes: Totals may not sum due to rounding.

1 The conservation status of a vegetation community is designated by a number from 1 to 5, preceded by a letter reflecting the appropriate geographic scale of the assessment (G = global, N = national, and S = subnational). The numbers in the table have the following meaning (NatureServe 2025):
3 = vulnerable
4 = apparently secure
5 = demonstrably widespread, abundant, and secure
NA = not applicable

2 Per the California Natural Community List (CDFW 2023a), this community is not considered sensitive.

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SOURCE: Bing Maps 2021; FRAP 2015

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0 125 250 Feet

FIGURE 3

Vegetation Communities and Land Covers

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5.1.1 Native and Naturalized Vegetation Communities

Joshua Tree Woodland

Joshua tree woodland or *Yucca brevifolia* alliance is recognized by the Natural Communities List and the communities include western Joshua tree as an emergent small tree over a shrub or grass layer (CNPS 2025b). Joshua tree woodland has an open to intermittent tree canopy less than 14 meters (45 feet) in height, and an open to intermittent shrub and herbaceous layer with perennial grasses and seasonal annuals (Sawyer et al. 2009). This alliance consists of Joshua trees evenly distributed of at least 1% cover with *Juniperus* and/or *Pinus* spp. of at least more than 1% absolute cover in tree canopy (Sawyer et al. 2009). The Joshua tree woodland alliance occurs on gentle alluvial fans, ridges, and gentle to moderate slopes. Joshua tree woodland may occupy coarse sands, very fine silts, gravel, or sandy loams (Sawyer et al. 2009). This vegetation alliance was mapped to the *Yucca brevifolia/Lycium andersonii-Ephedra nevadensis* association or Joshua tree/Anderson thornbush–Nevada ephedra association. The Joshua tree woodland alliance is considered a sensitive vegetation community by CDFW under CEQA (CDFW 2023a). Although no separate ranking is assigned to the *Yucca brevifolia/Lycium andersonii-Ephedra nevadensis* association, this association is still considered as sensitive in the California Natural Community List (CDFW 2023a).

This vegetation community occurs throughout the study area. Other species found within this community include common Mediterranean grass (*Schismus barbatus*) and tall tumble mustard (*Sisymbrium altissimum*).

Nevada Joint fir-Anderson's Boxthorn-Spiny Hop Sage Scrub

Nevada joint fir-Anderson's boxthorn-spiny hop sage scrub or *Ephedra nevadensis-Lycium andersonii-Grayia spinosa* shrubland alliance recognized by the Natural Communities List and the community includes Nevada joint fir, Anderson's boxthorn, and/or spiny hop sage as the dominant or codominant species in the shrub canopy layer (CNPS 2024b). This community has an open to continuous canopy of less than three meters in height (Sawyer et al. 2009). This alliance consists of at least 2% absolute cover of *Ephedra nevadensis* in the shrub canopy or at least 30 % relative cover of Nevada joint fir (*Ephedra nevadensis*), water jacket (*Lycium andersonii*), peach thorn (*L. cooperi*), or spiny hop sage (*Grayia spinosa*). This vegetation community was mapped to the *Ephedra nevadensis-Lycium andersonii* association. Nevada joint fir-Anderson's boxthorn-spiny hop sage scrub alliance is considered a sensitive vegetation community by CDFW under CEQA (CDFW 2023a); however, *Ephedra nevadensis-Lycium andersonii* association, is not considered as sensitive in the California Natural Community List (CDFW 2023a).

Nevada joint fir-Anderson's boxthorn-spiny hop sage is centrally located within the study area surrounded by the Joshua tree woodland vegetation community. Other species found within this association include cattle saltbush (*Atriplex polycarpa*), cheatgrass (*Bromus tectorum*), redstem stork's bill (*Erodium cicutarium*), and common Mediterranean grass (*Schismus barbatus*) all within the herbaceous layer. The area mapped north of the dirt road contained sparse creosote bush (*Larrea tridentata*).

Rubber Rabbitbrush Scrub

Rubber rabbitbrush scrub or *Ericameria nauseosa* shrubland alliance includes rubber rabbitbrush (*Ericameria nauseosa*) as the dominant or codominant species in the shrub canopy with a sparse or grassy herbaceous layer (CNPS 2025b). Rubber rabbitbrush scrub has an open to continuous shrub canopy of less than three meters (nine feet) in height (Sawyer et al. 2009). This alliance consists of at least 2% absolute cover of rubber rabbitbrush or more

than 25% relative cover in the shrub canopy (Sawyer et al. 2009). The rubber rabbitbrush scrub occurs in disturbed settings on well-drained sands and gravels (Sawyer et al. 2009).

This community is found along western and southeastern portions of the study area. Other species occurring within this community included cheatgrass and common mediterranean grass. The rubber rabbitbrush association is not considered a sensitive biological resource by CDFW under CEQA (CDFW 2023a).

5.1.2 Disturbed and Developed Land Cover Types

Disturbed Habitat

Although not recognized by the Manual of California Vegetation, Online Edition (CNPS 2025b) or the Natural Communities List (CDFW 2023a), disturbed habitat is described in the Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008). Disturbed habitat is described as areas generally lacking vegetation due to high levels of existing or historical human disturbance and are no longer recognizable as a native or naturalized vegetation association. Areas mapped as disturbed habitat may include unpaved roads, trails, and graded areas (Oberbauer et al. 2008). Vegetation in these areas, if present at all, is usually sparse and dominated by non-native weedy herbaceous species (Oberbauer et al. 2008). This land cover type was mapped along the border of the study area and running through the study area representing the dirt roads. The southeastern portion of the study area was also mapped as disturbed because vegetation removal was evident in the area.

Urban/Developed

Although not recognized by the Manual of California Vegetation (CNPS 2025b) or the Natural Communities List (CDFW 2023a), the urban/developed mapping unit (or developed land) is described in Draft Vegetation Communities of San Diego County (Oberbauer et al. 2008). This mapping unit is described as areas supporting human-made structures, including homes, yards, sidewalks, and other highly modified lands supporting structures associated with dwellings or other permanent structures. Vegetation in these areas, if present at all, is typically associated with ornamental landscaping that has been included in the development footprint (Oberbauer et al. 2008). Developed lands include the developed roads adjacent to the study area and a small portion of the offsite residential properties in the northwest corner of the study area.

5.2 Special-Status Plant Species

Appendix C, Assessment of Special-Status Plant Species Potential to Occur in the Study Area, lists special-status plant species that are known to occur in the in the USGS 7.5-minute Ritter Ridge quadrangle and the surrounding eight USGS 7.5-minute quadrangles, or are included within the USFWS IPaC list generated for the study area (CDFW 2025a; CNPS 2025a; USFWS 2025a). One special-status plant species, Joshua tree, was observed during the field reconnaissance surveys and subsequently mapped per CDFW standards. Two additional plant species, Mojave monardella (*Monardella exilis*) and crowned muilla (*Muilla coronata*), both CRPR List 4 species (species with limited distribution [CNPS 2025a]), were initially assessed as having a moderate potential to occur in the study area due to local records and suitable habitat being present. However, the rare plant surveys, conducted after a positive identification of the species in bloom at local reference populations, were negative for the species.

Joshua Tree

Western Joshua tree is a candidate for listing as "Threatened" under CESA and afforded the protection of the act while the Commission decides if listing the species is warranted. This monocot tree in the asparagus family (Agavaceae) typically blooms between April and May but is a conspicuous tree and identifiable at any time of year. It is found within Joshua tree woodland, Great Basin grassland and scrub, Mojavean desert scrub, pinyon and juniper woodland, Sonoran desert scrub, and valley and foothill grassland between 1,310 and 6,560 feet amsl (CNPS 2025b). This species occurs on desert flats and slopes in northern extent of Los Angeles County and other counties in southeastern California (Calflora 2025; Jepson Flora Project 2025).

A total of 561 western Joshua trees were observed, with 543 within the Project site and 18 within the CDFW-required 50-foot buffer, as shown in Figure 4, Western Joshua Tree. This includes 99 individuals measuring less than one meter in height, 432 individuals measuring between one and five meters in height, and 30 individuals measuring five meters or more in height. Appendix D, Western Joshua Tree Conservation Act Incidental Take Permit Application Package, provides complete details of the Joshua trees that were censused.

5.2.1 California Desert Native Plants

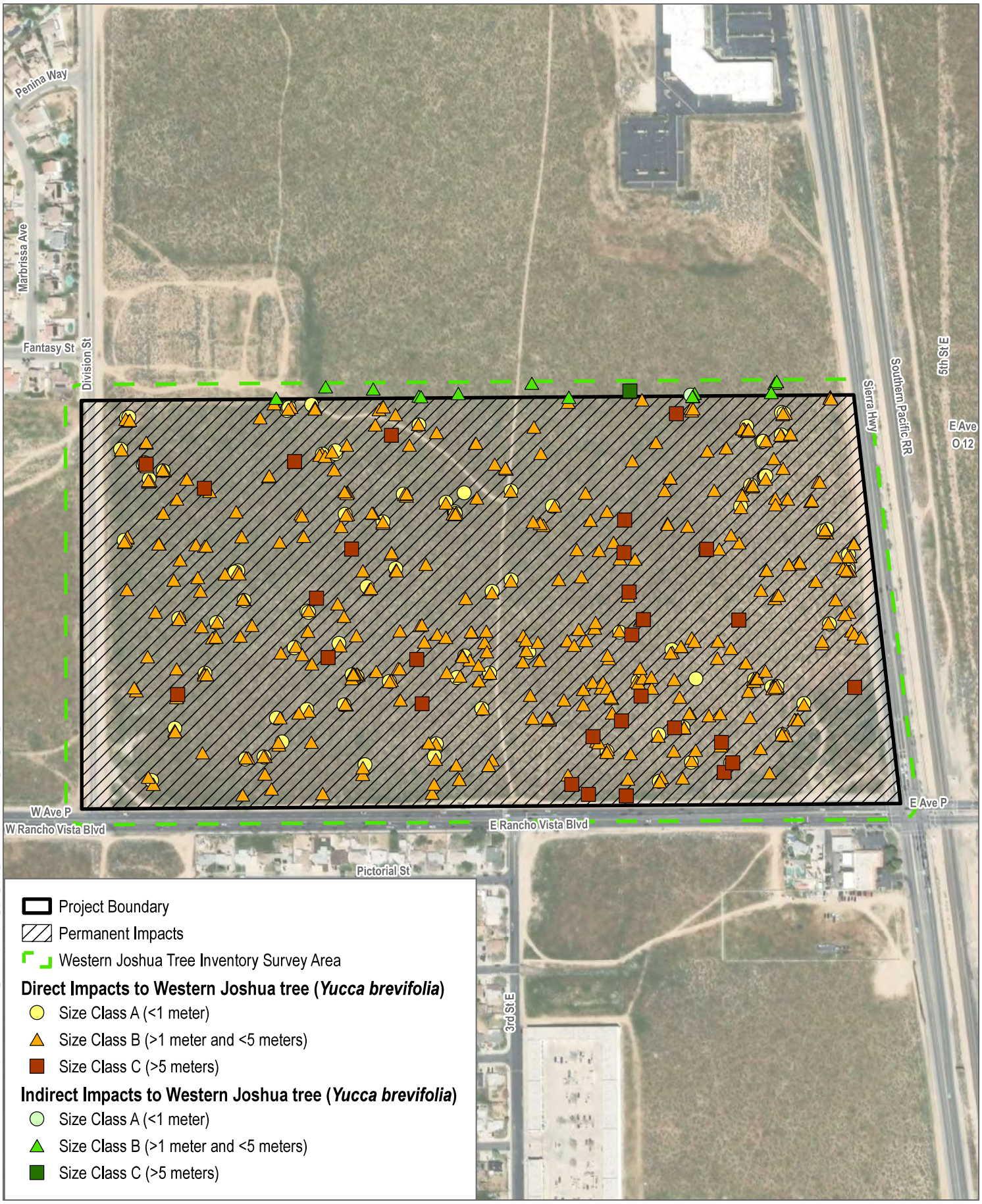
Other than western Joshua tree, one desert native plant species was mapped within the study area, consisting of six Wiggins' cholla (*Cylindropuntia echinocarpa*) individuals that were observed. These species are regulated under the Joshua Tree and Native Desert Vegetation Preservation Ordinance and CDPNA. Although the CDNPA is codified in state law (California Food and Agricultural Code Division 23), enforcement powers and administrative responsibilities are given to the subject County commissioner, sheriff, and board of supervisors as stipulated in Chapter 4 of the CDNPA (Enforcement Powers and Administrative Responsibilities). Therefore, potential impacts to desert native plant species are analyzed in Section 6.6, which discusses project consistency with local policies or ordinances.

5.3 Special-Status Wildlife Species

Appendix E, Special-Status Wildlife Species Potentially Occurring in the study area, lists special-status wildlife species that are known to occur in the USGS 7.5-minute Ritter Ridge quadrangle and the surrounding eight USGS 7.5-minute quadrangles, as well as wildlife species included within the USFWS IPaC list generated for the study area (CDFW 2025a; USFWS 2025a). No critical habitat for wildlife has been designated within the study area (USFWS 2025a).

One special-status wildlife species was observed during the surveys, loggerhead shrike (*Lanius ludovicianus*), and three additional special-status wildlife have a moderate potential to occur in the study area, as summarized in Table 2, Special-Status Wildlife Species Present or with a Moderate Potential to Occur in the Study Area. Habitat assessments for Mohave ground squirrel and burrowing owl determined that the species could potentially occur; however, surveys for the two species were negative. Crotch's bumble bee (*Bombus crotchii*) is discussed because it is a candidate for listing under CESA and has a low potential to occur within the study area. Desert tortoise (*Gopherus agassizii*) is discussed because the species is listed under the federal and state endangered species acts and the study area is within the range of the species, but it is not expected to occur within the Project site.

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SOURCE: Esri World Imagery Basemap; Los Angeles County 2024; Pacific Industrial 2024

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0 200 400 Feet

FIGURE 4

Western Joshua Tree

Pacific Palmdale Center

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Table 2. Special-Status Wildlife Species Present or with a Moderate Potential to Occur in the Study Area

Scientific Name	Common Name	Status[1] (Federal/State)	Habitat	Potential to Occur[2]
Anniella pulchra	northern California legless lizard	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and sandy or loose, loamy soils	Moderate potential to occur. Suitable soils are present, and there is a documented occurrence approximately 2.5 miles west, from 2010 (CDFW 2024a). There have been no CDFW-documented sitings reported in the vicinity of the Project for the past 15 years, since 2010; however, there are 2020 iNaturalist (2025) records of legless lizard from the nearby Palmdale Regional Airport property.
Anniella spp.	California legless lizard	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Moderate potential to occur. Suitable soils are present, and there is a documented occurrence approximately 2.5 miles west, from 2010 (CDFW 2024a). There have been no CDFW-documented sitings reported in the vicinity of the Project for the past 15 years, since 2010; however, there are 2020 iNaturalist (2025) records of legless lizard from the nearby Palmdale Regional Airport property.
Lanius ludovicianus (nesting)	loggerhead shrike	None/SSC	Nests and forages in open habitats with scattered shrubs, trees, or other perches	Present. This species was observed onsite during the biological reconnaissance survey conducted by Dudek on February 22, 2024. Additionally, the species was documented by CDFW approximately one mile north, in 2008 (CDFW 2024).

Table 2. Special-Status Wildlife Species Present or with a Moderate Potential to Occur in the Study Area

Scientific Name	Common Name	Status[1] (Federal/State)	Habitat	Potential to Occur[2]
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	Moderate potential to occur. Suitable habitat is present and there is a historical documented occurrence in the study area, from 1964 (CDFW 2024a). The nearest recent occurrence is approximately 5.5 miles west, from 2008 in an area of higher elevation. There have been no CDFW-documented sitings reported in the vicinity of the Project for the past 17 years, site since 2008; there is a 2023 iNaturalist (2025) record of Blainville's horned lizard within one mile of the Project to the south.

Notes: Federal: FT=federally listed as threatened; BCC=Bird of Conservation Concern (USFWS)
State: ST=state listed as threatened; SCE=state candidate for endangered; SSC=Species of Special Concern (CDFW)

Crotch's Bumble Bee

Crotch's bumble bee is a candidate for listing as "Endangered" under CESA and is afforded the protection of CESA while the California Fish and Game Commission decides if listing the species is warranted. An Incidental Take Permit from CDFW per Section 2081 subdivision (b) of the Fish and Game Code would be necessary should a project take individuals of the species. This species occurs primarily in California, including the Mediterranean region, Pacific Coast, Western Desert, Great Valley, and adjacent foothills through most of southwestern California (The Xerces Society 2018). In California, the species inhabits open grassland and scrub habitats (The Xerces Society 2018). The size of Crotch's bumble bee colonies has not been well documented, but like most other species of bumble bees, the species primarily nests underground (The Xerces Society 2018). Bumble bees, including Crotch's bumble bee, are generalist foragers and have been reported visiting a wide variety of flowering plants. Since it has a very short tongue, Crotch's bumble bee is best suited to forage at open flowers with short corollas (The Xerces Society 2018). The plant families most associated with observations or collections of the species from California include Fabaceae, Apocynaceae, Asteraceae, Lamiaceae, and Boraginaceae (The Xerces Society 2018). Nectar plants known to be visited by Crotch's bumble bee include the genera *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, and *Salvia* (Williams et al. 2014, Xerces Society et al. 2018), but it is assumed flowering plants in other genera could also support foraging by this species.

There are three CNDDB records within 10 miles of the Project, with the most recent being 1971 (CDFW 2025a). There are two citizen scientist records from within 10 miles of the Project (iNaturalist 2025). Within the Antelope Valley, almost all the CNDDB records are from the slopes and alluvial fans from the Transverse Range and Tehachapi Mountains and consist of individuals observed primarily foraging and not nest sites (CDFW 2025a). Based upon the results of the surveys of the study area, there are few burrows that could be used for nesting and

there are minimal foraging opportunities due to the high prevalence of non-native grasses that dominate the understory. Due to the limited recorded occurrences in the Project region and the limited nesting and foraging opportunities, Crotch's bumble bee has a low potential to occur as a transient in the study area.

Desert Tortoise

Desert tortoise is a federally and state-listed threatened species. The range of the Mohave population of the desert tortoise includes portions of the Mojave Desert and the Colorado Desert in Southern California (parts of Inyo, Kern, Los Angeles, San Bernardino, and Riverside Counties), southern Nevada (Clark, Esmeralda, Nye, and Lincoln Counties), northwestern Arizona (Mohave County), and southwestern Utah (Washington County). The typical habitat for the desert tortoise in the Mojave Desert is creosote bush scrub where precipitation ranges from two to eight inches, with relatively high diversity of perennial plants, and high productivity of ephemeral plants. Throughout most of the Mojave Desert, desert tortoises occur most commonly on gently sloping terrain with sandy gravel soils and where there is sparse cover of low-growing shrubs, which allows for the establishment of herbaceous plants. Soils must be friable enough for digging of burrows, but firm enough so that burrows do not collapse (USFWS 2011). Although populations of desert tortoise are not generally known to inhabit elevations much above 4,000 feet amsl, they occur from below sea level to an elevation of 7,300 feet amsl. Occupied habitat varies from flats and slopes dominated by creosote bush scrub at low elevations to rocky slopes in blackbrush and juniper woodland ecotones at higher elevations (USFWS 2011).

The study area provides marginal habitat for desert tortoise and no individuals or diagnostic sign of the species (burrows, scat, or carcasses) were observed during the reconnaissance, burrowing owl, rare plant, and Mohave ground squirrel surveys. The study area is in the far southwestern corner of desert tortoise's historic range on the northern and eastern edge of Palmdale (CDFW 2025b). The study area is isolated from large, connected areas of suitable habitat for the species, and the nearest core population approximately 16 miles to the east-northeast (CDFW 2025b), by Sierra Highway and the railroad tracks that parallel it on the east, the fenced Palmdale Regional Airport, and active agricultural fields. Protocol desert tortoise surveys in 2022 for the Antelope Valley Commerce Center Project, located just southeast of the intersection of Sierra Highway and West Avenue M (approximately 2.4 miles to the north-northeast), were negative for individuals or diagnostic sign of the species (Psomas 2023). Due to lack of diagnostic sign, the presence of only marginal habitat, recent local negative survey results, and physical separation of the Project site from the nearest core population 16 miles away with intervening fenced areas, highways, railroads tracks, and development, desert tortoise is not expected to occur in the study area or in the immediate vicinity of the Project site.

Burrowing Owl

Burrowing owl is a candidate for listing under CESA and a USFWS Bird of Conservation Concern. With a relatively wide-ranging distribution throughout the west, burrowing owls are considered to be habitat generalists (Lantz et al. 2004). In California, burrowing owls are yearlong residents of open, dry grassland and desert habitats and in grass, forb, and open shrub stages of pinyon-juniper and ponderosa pine habitats (Zeiner et al. 1990). Preferred habitat is generally typified by short, sparse vegetation with few shrubs, level to gentle topography, and well-drained soils (Haug et al. 1993).

Within 10 miles of the Project there are 14 CNDDB records of burrowing owl, with the nearest being approximately 1.10 miles to the southwest from 2006 that has been extirpated due to development (CDFW 2025a). The most recent record within 10 miles of the Project is from 2013 and is approximately eight miles to the northwest and is associated with agricultural fields (CDFW 2025a). There are 15 distinct eBird records within 10 miles of the Project and none of the observations were associated with breeding (eBird 2025).

Based upon the negative results of the habitat assessment conducted in April 2024 (few appropriately sized burrows, no diagnostic sign of the species, and marginal habitat due to the density of the shrubs) and no individuals or diagnostic sign during the non-breeding season surveys, the species was determined to not be expected breed on the Project site. Surveys conducted during the non-breeding season also found no individuals or diagnostic sign of burrowing owl. However, this species is opportunistic, especially during migration and wintering, and can move onto a site once a suitable burrow is established and is unoccupied. As such, the species has a low potential to occur in the study area as a transient.

Mohave Ground Squirrel

Mohave ground squirrel is a state-listed threatened species. This species' distribution range is restricted to the Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo Counties (Zeiner et al. 1990). Mohave ground squirrels generally inhabit areas where the soil is friable and sandy or gravelly. Mohave ground squirrels occur in desert scrub habitats dominated by creosote bush and desert saltbush scrub at elevations between 1,800 and 5,000 feet amsl.

The study area was assessed as having suitable habitat for Mohave ground squirrel based upon the presence of vegetation (spiny hop sage) foraged on by the species. No Mohave ground squirrel were captured or identified by sight or signs during the protocol surveys of the Project site conducted in April, May, and June of 2024 as documented in Appendix A. The Project site is located within the southwestern portion of the Mohave ground squirrel range where the population densities have historically been low and entirely absent from the southwestern portion of the range since at least the mid-1990s (Leitner 2021). The closest CNDDB occurrence of the species was documented in 1944 approximately 0.52 miles south of the Project in an area that is now developed (CDFW 2025a). The most recent occurrence was documented in 1984 approximately 4.71 miles north of the Project site. This site was re-trapped in 2005 with negative results before it was developed, and the area is now developed (CDFW 2025a). The closest MGS core population to the Project, described in the CDFW Mohave Ground Squirrel Conservation Strategy (CDFW 2023b), is the Edwards Air Force Base core population area located approximately 26 miles northeast of the Project site.

5.4 Wildlife Corridors and Nurseries

Wildlife corridors are linear features that connect large patches of natural open space and provide avenues for the migration of animals. Corridors can also be aquatic resources that provide passage for fish. Habitat linkages are small patches that join larger blocks of habitat and help reduce the adverse effects of habitat fragmentation; they may be continuous habitat or discrete habitat islands that function as steppingstones for wildlife dispersal.

On a regional level, the study area does not occur within any designated wildlife corridors or habitat linkages identified in the South Coast Missing Linkages analysis conducted by South Coast Wildlands (2008) or CDFW's California Essential Habitat Connectivity Project (Spencer et al. 2010), as shown in the CDFW BIOS (CDFW 2025b). On a local level, the study area does not have any streams that would provide fish passage and it provides limited connectivity for terrestrial wildlife movement due to the developed lands to the south and west, and due to Sierra Highway and the railroad tracks that parallel it on the east, the fenced Palmdale Regional Airport, and active agricultural fields to the north and east.

No diagnostic signs of bird rookeries (e.g., numerous nests, whitewash) or large maternal or overwintering bat roosts (e.g., large concentrations of guano or guano odors) were identified in the study area and are not expected. The lack of habitat to provide substantial foraging opportunities for birds on site or in the immediate area make

rookeries unlikely. The lack of typical urban roosting habitat (bridges and older buildings with structural deficiencies) makes it unlikely for the study area to support native wildlife nursery sites. Shrub vegetation located within and adjacent to the study area provides suitable nesting habitat for birds.

5.5 Jurisdictional Wetlands and Waters

No potential jurisdictional waters were observed during the reconnaissance surveys nor were any aquatic features identified during the desktop review of aerial imagery (Google 2025), the National Hydrography Dataset and Watershed Boundary Dataset (USGS 2025), and the USFWS National Wetland Inventory (USFWS 2025b). Therefore, there is no reasonable potential for jurisdictional waters or wetlands to be in the Project's study area, and a formal jurisdictional delineation was not required.

5.6 Local, Regional, or State Habitat Conservation Plans

The project is not located within any formally adopted Natural Community Conservation Plan/Habitat Conservation Plan (NCCP/HCP) (CDFW 2019). The project is within the Draft West Mojave Plan area (BLM 2006). The BLM issued a Record of Decision for the West Mojave Plan in 2006, although the West Mojave Plan has not been formally adopted. The West Mojave Plan applies to projects on federal land, so the Project would not be processed under it. However, the project would not conflict with the conservation criteria associated with the West Mojave Plan.

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6 Project Impacts

This chapter addresses direct and indirect impacts to biological resources that would result from implementation of the proposed Project.

6.1 Definition of Impacts

6.1.1 Direct Permanent Impacts

Direct permanent impacts refer to the absolute and permanent physical loss of a biological resource due to clearing, grading, and/or construction of structures, which can be determined in four ways: (1) permanent loss of vegetation communities, land covers, and general wildlife and their habitat; (2) permanent loss of or harm to individuals of special-status plant and wildlife species; (3) permanent loss of suitable habitat for special-status species; and (4) permanent loss of wildlife movement and habitat connectivity.

6.1.2 Direct Temporary Impacts

Direct temporary impacts refer to a temporal loss of vegetation communities and land covers resulting from vegetation and land cover clearing. The main criterion for direct temporary impacts is that impacts would occur for a short period of time and would be reversible. Areas currently supporting native vegetation temporarily disturbed by construction activities would be restored and revegetated with a native species mix similar to that which existed prior to disturbance following completion of work in the area such that full biological function can be restored. Areas not currently supporting native vegetation would be adequately restored to prevent adverse effects such as erosion or establishment of invasive species following construction.

6.1.3 Indirect Impacts

Indirect impacts are reasonably foreseeable effects caused by project implementation on remaining or adjacent biological resources outside the direct construction disturbance zone that may occur during construction (i.e., short-term construction related indirect impacts) or later in time as a result of the development (i.e., long-term, or operational, indirect impacts). Indirect impacts may affect areas within the defined study area, but outside the construction disturbance zone. Indirect impacts include short-term effects immediately related to construction activities and long-term or chronic effects related to the human occupation of developed areas (i.e., development-related long-term effects) that are adjacent to naturalized areas.

For the proposed Project, it is assumed that the potential indirect impacts resulting from construction activities include fugitive dust from earthmoving activities, accidental leaks or spills from construction equipment, noise from construction activities, and general human presence that may temporarily disrupt species and habitat vitality, as well construction-related soil erosion and runoff that could affect downstream resources.

6.1.4 Explanation of Findings of Significance

Impacts to sensitive vegetation communities or riparian habitat, special-status plant species, special-status wildlife species, wildlife corridors and habitat connectivity, and regional resource planning must be analyzed to

determine whether such impacts are significant. CEQA Guidelines Section 15064(b) states that an ironclad definition of "significant" effect is not possible because the significance of an activity may vary with the setting. However, CEQA Guidelines Section 15065(a) lists impacts that are helpful in defining whether a project may have a significant effect on the environment. Mandatory findings of significance occur when there is substantial evidence that a project could: (1) substantially degrade the quality of the environment, (2) substantially reduce the habitat of a fish or wildlife species, (3) cause a fish or wildlife population to drop below self-sustaining levels, (4) threaten to eliminate a plant or animal community, or (5) reduce the number or restrict the range of a rare or endangered plant or animal.

The following are the significance thresholds for biological resources provided in the CEQA Appendix G environmental checklist, which states that a project would potentially have a significant effect if it:

Impact BIO-1. Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as being a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS?

Impact BIO-2. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, or regulations, or by CDFW or USFWS?

Impact BIO-3. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

Impact BIO-4. Would the project 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 impedes the use of native wildlife nursery sites?

Impact BIO-5. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

Impact BIO-6. Would the project conflict with the provisions of an adopted habitat conservation plan, natural community conservation plan, or other approved local, regional, or state habitat conservation plan?

The evaluation of whether or not an impact to a particular biological resource is significant must consider both the resource itself and the role of that resource in a regional context. Substantial impacts are those that contribute to, or result in, permanent loss of an important resource, such as a population of a rare plant or animal. Impacts may be important locally because they result in an adverse alteration of existing site conditions but considered not significant because they do not contribute substantially to the permanent loss of that resource regionally. The severity of an impact and the offsetting benefits of mitigation are the primary determinants of whether or not that impact can be mitigated to a less-than-significant level.

6.2 Impact BIO-1: Special-Status Species

6.2.1 Impacts to Special-Status Plants

One listed special-status plant species (i.e., western Joshua Tree) and one special-status wildlife species (loggerhead shrike) were detected within the Project site. Additionally, as indicated on Table 2, three additional special-status wildlife species (northern California legless lizard, California legless lizard, and Blainville's horned lizard) have a moderate potential to occur within the Project site due to presence of suitable habitat and local records of the species. The Project would have significant impacts on special-status species absent mitigation or avoidance. Plant species that are not considered special-status but are protected under the locally-enforced CDNPA (i.e., Wiggins' cholla) are discussed in Section 6.6, Impacts Associated with Local Policies and Ordinances.

6.2.1.1 Direct Impacts

One listed special-status plant species was observed within the study area: western Joshua tree.

Western Joshua Tree

Western Joshua tree, a candidate for state listing under CESA, was observed and would be directly impacted by the Project. Based on the site plan, implementation of the Project would result in direct impacts to 543 western Joshua trees. All ground-disturbing activities are considered permanent impacts to western Joshua trees. Direct impacts to western Joshua tree would be significant absent mitigation under CEQA. Appendix D, Western Joshua Tree Conservation Act Incidental Take Permit Application Package, provides complete details of the Joshua trees that were censused.

Based on the WJTCA, Fish and Game Code section 1927.3 requires the applicant to get an incidental take permit from CDFW and mitigate by paying the statutorily prescribed fees to the agency. Trees located in the area described in Fish and Game Code section 1927.3 (e) are in the reduced fee area; therefore, impacts to western Joshua tree can be mitigated on a per-tree basis as follows:

- five meters or greater in height - $1,000
- one meter or greater but less than 5 meters in height - $200
- less than one meter in height - $150

The Project would result in direct impacts to 29 Joshua trees that are five meters or greater in height, 416 trees one meter or greater but less than five meters in height, and 98 trees less than one meter in height.

As required by **Mitigation Measure (MM)-BIO-1** (Western Joshua Tree Incidental Take Permit), mitigation for direct impacts to 543 western Joshua trees, their seed bank, and associated habitat would be fulfilled through off-site conservation of western Joshua trees through a payment of fees consistent with the Western Joshua Tree Conservation Act.

Furthermore, the implementation of **MM-BIO-2** (Designated Biologist Authority) gives the project's designated biologist the authority to stop work if construction is not compliant with this CEQA document. **MM-BIO-3** (Compliance Monitoring) requires that an experienced biologist oversee compliance with the protective measures, including limiting impacts to the project footprint. **MM-BIO-4** (Education Program) would provide construction personnel with

training related to special-status plants that could potentially occur on or adjacent to the impact footprint. MM-BIO-5 (Construction Monitoring Notebook) provides for documentation that the education program was administered to applicable personnel. MM-BIO-6 (Delineation of Property Boundaries) requires that impacts occur within the fenced, staked, or flagged area that is clearly delineated within the project impact footprint. The construction crew would be responsible for unauthorized impacts from construction activities to special-status plants that are outside the permitted project footprint.

Therefore, implementation of MM-BIO-1 (Western Joshua Tree Incidental Take Permit), MM-BIO-2 (Designated Biologist Authority), MM-BIO-3 (Compliance Monitoring), MM-BIO-4 (Education Programs), MM-BIO-5 (Construction Monitoring Notebook), and MM-BIO-6 (Delineation of Property Boundaries) would reduce direct impacts to western Joshua trees to less than significant.

6.2.1.2 Indirect Impacts

In total, 18 western Joshua trees were mapped within the 50-foot buffer outside of the project footprint and would be preserved in place. The Project would result in indirect impacts to one Joshua tree that is five meters or greater in height, 16 trees one meter or greater but less than five meters in height, and one tree less than one meter in height. Although these trees would not be directly impacted, implementation of the project may result in indirect impacts to these western Joshua trees.

Western Joshua Tree

Construction-related, short-term indirect impacts may include dust accumulation on Joshua trees, stormwater erosion and sedimentation, chemical spills, wildfire risk, and other inadvertent spillover impacts outside of the construction footprint. Potential long-term (post-construction) indirect impacts from Project-related operation and maintenance activities may include effects of herbicides, changes in water quality, spread of invasive plants, and accidental chemical spills. Indirect impacts to Joshua trees would be potentially significant absent mitigation.

To reduce fugitive dust and its resulting air pollutant effects from project construction, the Project's construction contractors would employ dust control measures in accordance with the Mojave Desert Air Quality Management District's (AQMDs) Rules 401 and 403.2, which limit the amount of fugitive dust that is permitted to be generated during construction.

A Stormwater Pollution Prevention Plan (SWPPP) would be prepared and implemented to prevent construction-related pollutants from contacting stormwater during construction activities, with the intent of keeping sediment and other pollutants from moving off site and into receiving waters. Best management practice (BMP) categories employed on site would include erosion control, sediment control, and non-stormwater good housekeeping. Preparation and implementation of a SWPPP will help to avoid and minimize the potential effects of stormwater erosion during construction.

Upon completion of project construction, the project would not facilitate wildfire spread or exacerbate wildfire risk due to the low ignitability of the proposed concrete-tilt-up structure and the site's concrete parking lot surfaces, and implementation of fire-resistant and irrigated landscaping. Additionally, to reduce the spread of invasive plant species, MM-BIO-7 (Invasive Plant Management) landscape plants within 200 feet of native vegetation communities shall not be on the most recent version of the Cal-IPC California Invasive Plant Inventory. Further, given that surrounding off-site fuels consist of moderately spaced vegetation, wildfires in the immediate

surrounding area are not common (Cal Fire 2025), and it is unlikely that the Project site would be exposed to the uncontrolled spread of a wildfire.

Additionally, **MM-BIO-8** (Hazardous Waste) would ensure that a prompt and effective response to any accidental chemical spills would be implemented, and that repair and clean-up of any hazardous waste occurs. Implementation of **MM-BIO-9** (Herbicides) would limit herbicide use to instances where hand or mechanical efforts are infeasible and would only be applied when wind speeds are less than seven (7) miles per hour to prevent drift into off-site special-status plants. Thus, implementation of MM-BIO-8 (Hazardous Waste) and MM-BIO-9 (Herbicides) would help to avoid and minimize indirect impacts to special-status plants from any construction-related chemical spills or improper application of herbicides.

Furthermore, the implementation of MM-BIO-2 (Designated Biologist Authority) gives the project's designated biologist the authority to stop work if construction is not compliant with this CEQA document. MM-BIO-3 (Compliance Monitoring) requires that an experienced biologist oversee compliance with the protective measures, including limiting impacts to the project footprint. MM-BIO-4 (Education Program) would provide construction personnel with training related to special-status plants that could potentially occur on or adjacent to the impact footprint. MM-BIO-5 (Construction Monitoring Notebook) provides for documentation that the education program was administered to applicable personnel. MM-BIO-6 (Delineation of Property Boundaries) requires that impacts occur within the fenced, staked, or flagged area that is clearly delineated within the project impact footprint. The construction crew would be responsible for unauthorized impacts from construction activities to special-status plants that are outside the permitted project footprint. Thus, implementation of MM-BIO-2 through MM-BIO-6 would help to avoid and minimize inadvertent spillover impacts outside of the approved impact footprint.

Accordingly, implementation of MM-BIO-2 (Designated Biologist Authority), MM-BIO-3 (Compliance Monitoring), MM-BIO-4 (Education Program), MM-BIO-5 (Construction Monitoring Notebook), MM-BIO-6 (Delineation of Property Boundaries), MM-BIO-7 (Invasive Plant Management), MM-BIO-8 (Hazardous Waste), and MM-BIO-9 (Herbicides) would reduce potential indirect impacts to western Joshua tree to less than significant.

6.2.2 Impacts to Special-Status Wildlife

6.2.2.1 Direct Impacts

Direct impacts can potentially occur to special-status wildlife species from impacts to habitat and impacts to the species from injury or mortality of individuals from construction activities. The project could result in significant, direct impacts to four special-status wildlife species that were observed or have a moderate potential to occur within the study area: northern California legless lizard, California legless lizard, Blainville's horned lizard, and loggerhead shrike. Additionally, potential significant direct impacts to two special-status species that have a low potential to occur, Crotch's bumble bee and burrowing owl, are analyzed due their candidate for state listing status. Potential direct impacts to these five special status species and proposed avoidance/minimization measures are detailed below. Focused surveys conducted for Mohave ground squirrel were negative and desert tortoise is not expected to occur; therefore, impacts to these species will not be analyzed further.

Crotch's Bumble Bee

Much of the Project site understory is dominated by non-native vegetation; however, there are floral resources that could support Crotch's bumble bee foraging. Implementation of the proposed project would result in permanent

direct impacts to Crotch's bumble bee through the removal of potentially suitable foraging habitat. Abundant suitable habitat, including foraging and nesting resources, is present in the Project vicinity, including Palmdale Regional Airport and Edward Air Force Base. These areas will continue to provide habitat opportunities for this species. As a result, the loss of suitable habitat would not substantially reduce the habitat for the species and would not cause the species population to drop below self-sustaining levels; therefore, direct impacts resulting from the loss of habitat for Crotch's bumble bee would be less than significant.

Crotch's bumble bee is a highly mobile species so direct impact to individuals would only be expected due to impacts to a nest. Because Crotch's bumble bee typically nests underground, individuals would be highly vulnerable to injury and mortality during construction, which could crush nests, if present on site. Although there are few nesting opportunities (i.e., small mammal burrows) on the Project site, harm to or the loss of a nest during construction could be significant, absent mitigation. Potential significant direct impacts to Crotch's bumble bee nests would be avoided and reduced to less than significant with the implementation of MM-BIO-2 (Designated Biologist Authority), MM-BIO-3 (Compliance Monitoring), MM-BIO-4 (Education Program) MM-BIO-5 (Construction Monitoring Notebook), and **MM-BIO-10** (Crotch's Bumble Bee Pre-Construction Surveys). MM-BIO-10 (Crotch's Bumble Bee Pre-Construction Surveys) would require pre-construction habitat assessments and focused surveys to identify any Crotch's bumble bee nest(s) present within the impact footprint. The measure would require no-impact buffers to be established around nests, thereby avoiding potential direct impacts to Crotch's bumble bee resulting from the loss of individuals.

Accordingly, implementation of MM-BIO-3 (Designated Biologist Authority), MM-BIO-4 (Compliance Monitoring), MM-BIO-5 (Education Programs), MM-BIO-6 (Construction Monitoring Notebook), and MM-BIO-10 (Crotch's Bumble Bee Pre-Construction Surveys and Potential Incidental Take Permit) would reduce potential direct impacts to Crotch's Bumble to less than significant.

Northern California Legless Lizard, California Legless Lizard, and Blainville's Horned Lizard

Direct impacts could occur to northern California legless lizard, California legless lizard, and Blainville's horned lizard if individuals occur within the Project's ground disturbance area during construction. **MM-BIO-11** (Special-Status Wildlife Relocation Plan) provides a methodology for pre-construction surveys and relocation of individuals. In addition, implementation of MM-BIO-2 (Designated Biologist Authority), MM-BIO-3 (Compliance Monitoring), MM-BIO-4 (Education Programs), and MM-BIO-5 (Construction Monitoring Notebook) would reduce potential direct impacts to less than significant.

Burrowing Owl

Direct impacts could occur to burrowing owl if transient individuals occur within the study area during construction. Construction activities could cause disruptions to breeding activities and mortality or injury to individuals in burrows if present within the disturbance footprint during construction during either the breeding or non-breeding seasons. Harm to or loss of individuals because of construction activities would be significant absent mitigation under CEQA. Pursuant to the California Fish and Game Code and MBTA, a pre-construction survey in compliance with the Staff Report on Burrowing Owl Mitigation (CDFW 2012) would be necessary to confirm the presence or absence of burrowing owl so take of owls or active owl nests can be avoided if present. **MM-BIO-12** (Pre-Construction Burrowing Owl Survey and Potential Incidental Take Permit) would require pre-construction surveys for burrowing owl shall be conducted in areas supporting potentially suitable habitat with the first survey no less than 30 days prior to the start of construction activities and the last one within three days of start of construction. Should burrowing owl be identified during the survey, the Project Applicant would be required to In addition, implementation of MM-BIO-2

(Designated Biologist Authority), MM-BIO-3 (Compliance Monitoring), MM-BIO-4 (Education Programs), and MM-BIO-5 (Construction Monitoring Notebook) would reduce potential direct impacts to less than significant.

Accordingly, implementation of MM-BIO-2 (Designated Biologist Authority), MM-BIO-3 (Compliance Monitoring), MM-BIO-4 (Education Programs), MM-BIO-5 (Construction Monitoring Notebook), and MM-BIO-12 (Pre-Construction Burrowing Owl Survey and Potential Incidental Take Permit) would reduce potential direct impacts to burrowing owl to less than significant.

Loggerhead Shrike

The study area supports suitable loggerhead shrike foraging and nesting habitat (e.g., open desert scrub with scattered shrubs). Additionally, one foraging loggerhead shrike observation was made on the Project site in 2024. Implementation of the proposed project could result in direct impacts to loggerhead shrike through the removal of active nests. To avoid potential direct impacts to nesting loggerhead shrike, vegetation removal activities would be conducted between September 1 and January 31, which is outside the general bird nesting season (February 1 through August 31). If vegetation cannot be removed outside the bird nesting season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal to ensure that no occupied nests are present. This requirement is outlined in **MM-BIO-13** (Pre-Construction Nesting Bird Survey and Avoidance).

Indirect impacts to loggerhead shrike could occur due to the loss of foraging and potential nesting habitat. However, the removal of habitat would not significant due to abundant suitable habitat present in the project region, which includes the undeveloped portions of Palmdale Regional Airport and Edward Air Force Base. These off-site areas within the regional range of the species will continue to provide habitat opportunities for loggerhead shrike. As a result, the loss of suitable habitat would not substantially reduce the habitat for the species and would not cause the species population to drop below self-sustaining levels.

Accordingly, implementation of MM-BIO-12 (Pre-Construction Nesting Bird Survey and Avoidance) would reduce potential direct impacts to loggerhead shrike to less than significant.

Nesting Migratory Birds and Raptors

The study area contains trees, shrubs, and other vegetation suitable for birds of prey (raptors) and other avian species to nest on site. Native nesting bird species with potential to occur within the study area are protected by California Fish and Game Code Sections 3503 and 3503.5, and by the federal MBTA (16 USC 703–711). In particular, California Fish and Game Code Section 3503 provides that it is unlawful to take, possess, or needlessly destroy the active nests or eggs of any bird in California; Section 3503.5 protects all raptors and their eggs and active nests; and the MBTA prohibits the take (including killing, capturing, selling, trading, and transport) of native migratory bird species throughout the United States. Currently, California considers any nest that is under construction or modification, or is supporting eggs, nestlings, or juveniles, as "active." Therefore, impacts to nesting migratory birds and raptors, if present, would be significant absent mitigation under CEQA.

To ensure compliance with the California Fish and Game Code and MBTA and to avoid potential impacts to nesting birds, vegetation removal activities would be conducted between September 1 and January 31, outside the general bird nesting season (February 1 through August 31, depending on the species), and if vegetation cannot be removed outside the bird nesting season, a pre-construction nesting bird survey by a qualified biologist is required prior to vegetation removal to ensure that active nests are protected. This requirement is outlined in MM-BIO-13 (Pre-Construction Nesting Bird Survey and Avoidance).

Accordingly, implementation of MM-BIO-13 (Pre-Construction Nesting Bird Survey and Avoidance) would reduce potential direct impacts to nesting migratory birds and raptors to less than significant.

6.2.2.2 Indirect Impacts

Indirect impacts to special-status wildlife species are those that occur during construction to species present near the site, but not within the construction zone. Such impacts include fugitive dust that can degrade habitat and result in health implications for wildlife species; noise and vibration that can stress wildlife species or cause them to leave an area of otherwise suitable habitat, or that can result in disruption of bird nesting and abandonment of nests; increased human presence, which can also disrupt daily activities of wildlife and cause them to leave an area; generation of trash, such as food packaging and cigarette butts, and debris from construction-related materials, which can degrade wildlife habitat and can attract nuisance and pest species; night-time lighting, which can disrupt the activity patterns of nocturnal species, including many mammals and some birds, amphibians, and reptiles; and release of chemical pollutants, such as from oil leaks from construction vehicles and machinery. Implementation of the project could result in significant indirect impacts to special-status wildlife species absent mitigation.

MM-BIO-2 (Designated Biologist Authority), MM-BIO-2 (Compliance Monitoring), MM-BIO-4 (Education Program), and MM-BIO-5 (Construction Monitoring Notebook) would require that all workers complete a Worker Environmental Awareness Program (WEAP) training and would require ongoing biological monitoring and compliance with all biological resource mitigation. MM-BIO-8 (Hazardous Waste) would ensure that a prompt and effective response to any accidental chemical spills would be implemented, and that repair and clean-up of any hazardous waste occurs. To reduce fugitive dust resulting from project construction and to minimize adverse air quality impacts, the project would employ dust mitigation measures in accordance with the Mojave Desert AQMDs Rules 401 and 403.2, which would limit the amount of fugitive dust generated during construction. **MM-BIO-14** (Trash and Debris) would require trash and debris to be removed regularly and would require animal-resistant trash receptacles to avoid attracting urban-related predator species.

6.3 Impact BIO-2: Riparian Habitat and Sensitive Communities

The Project site contains two sensitive vegetation communities: Joshua tree woodland and Nevada joint fir-Anderson's boxthorn-spiny hop sage scrub.

6.3.1 Direct Impacts

As shown in Table 3, approximately 60.78 acres of these two communities would be directly impacted by the Project. Direct impacts to these sensitive vegetation communities would be significant absent mitigation under CEQA. Joshua trees are present in each community. As such MM-BIO-1 (Western Joshua Tree Incidental Take Permit) would be expected to mitigate for the loss of the communities to a level of less than significant.

Table 3. Impacts to Sensitive Vegetation Communities within the Project Site

Vegetation Community/ Land Cover	Alliance	Association	Ranking[1]	Project Site Acreage
Vegetation Communities				
Joshua tree woodland	*Yucca brevifolia* Woodland	*Yucca brevifolia / Lycium andersonii-Ephedra nevadensis*	G4/S3	60.78

Furthermore, the implementation of MM-BIO-2 (Designated Biologist Authority) gives the project's designated biologist the authority to stop work if construction is not compliant with this CEQA document. MM-BIO-3 (Compliance Monitoring) requires that an experienced biologist oversee compliance with the protective measures, including limiting impacts to the project footprint. MM-BIO-4 (Education Program) would provide construction personnel with training related to special-status plants that could potentially occur on or adjacent to the impact footprint. MM-BIO-5 (Construction Monitoring Notebook) provides for documentation that the education program was administered to applicable personnel. MM-BIO-6 (Delineation of Property Boundaries) requires that impacts occur within the fenced, staked, or flagged area that is clearly delineated within the project impact footprint. The construction crew would be responsible for unauthorized impacts from construction activities to special-status plants that are outside the permitted project footprint.

Therefore, implementation of MM-BIO-1 (Western Joshua Tree Incidental Take Permit), MM-BIO-2 (Designated Biologist Authority), MM-BIO-3 (Compliance Monitoring), MM-BIO-4 (Education Programs), MM-BIO-5 (Construction Monitoring Notebook), and MM-BIO-6 (Delineation of Property Boundaries) would reduce potential direct impacts to Joshua tree woodland and Nevada joint fir-Anderson's boxthorn-spiny hop sage scrub to less than significant.

6.3.2 Indirect Impacts

Indirect impacts to sensitive vegetation communities are similar to those identified for Joshua tree in Section 6.2.2. Accordingly, implementation of MM-BIO-2 (Designated Biologist Authority), MM-BIO-3 (Compliance Monitoring), MM-BIO-4 (Education Program), MM-BIO-5 (Construction Monitoring Notebook), MM-BIO-6 (Delineation of Property Boundaries), MM-BIO-7 (Invasive Plant Management), MM-BIO-8 (Hazardous Waste), and MM-BIO-9 (Herbicides) would reduce potential indirect impacts to Joshua tree woodland and Nevada joint fir-Anderson's boxthorn-spiny hop sage scrub to less than significant.

6.4 Impact BIO-3: Jurisdictional Wetlands and Waters

6.4.1 Direct Impacts

No jurisdictional features were observed on the Project site. Nor were any aquatic features identified during the desktop review of aerial imagery (Google 2024), the National Hydrography Dataset and Watershed Boundary Dataset (USGS 2024), and the USFWS National Wetland Inventory (USFWS 2024b). As such, the Project would have no impacts to jurisdictional features because no such features are present.

6.4.2 Indirect Impacts

Construction-related (short-term) indirect impacts may include inadvertent spillover impacts outside of the construction footprint, chemical spills, and stormwater erosion and sedimentation. These potential short-term or temporary indirect impacts to jurisdictional aquatic resources would be significant absent mitigation under CEQA.

MM-BIO-2 (Designated Biologist Authority) gives the project's designated biologist the authority to stop work if construction is not compliant with this CEQA document. MM-BIO-3 (Compliance Monitoring) requires that an experienced biologist oversee compliance with the protective measures, including limiting impacts within the project footprint. MM-BIO-4 (Education Program) would provide construction personnel with training related to waters of the state that are present on and adjacent to the impact footprint. MM-BIO-5 (Construction Monitoring Notebook) provides for documentation that the education program was administered to applicable personnel. MM-BIO-6 (Delineation of Property Boundaries) requires that impacts occur within the fenced, staked, or flagged area that is clearly delineated within the project impact footprint. The construction crew would be responsible for unauthorized impacts from construction activities to waters of the state that are outside the permitted project footprint, if applicable. Thus, implementation of MM-BIO-2 through MM-BIO-6 would enable the project to avoid and minimize inadvertent spillover impacts outside of the approved impact footprint.

MM-BIO-8 (Hazardous Waste) would ensure that a prompt and effective response to any accidental chemical spills would be implemented, and that repair and clean-up of any hazardous waste occurs. Thus, implementation of MM-BIO-8 (Hazardous Waste) would help to avoid and minimize impacts to waters of the state from any construction-related chemical spills.

In addition, a SWPPP would be prepared and implemented to prevent construction pollutants from contacting stormwater during construction activities, with the intent of keeping sediment and any other pollutants from moving off site and into receiving waters. BMP categories employed on site would include erosion control, sediment control, and non-stormwater good housekeeping. Preparation and implementation of a SWPPP will help to avoid and minimize the potential effects of stormwater erosion during construction.

Post-construction (long-term) indirect impacts from operations and maintenance activities may include changes in water quality and accidental chemical spills. These potential long-term indirect impacts to jurisdictional aquatic resources would be significant absent mitigation under CEQA.

Implementation of low-impact-development features and BMPs would, to the maximum extent practicable, reduce the discharge of pollutants into receiving waters, including inadvertent release of pollutants (e.g., hydraulic fluids and petroleum); the improper management of hazardous materials; trash and debris; and the improper management of portable restroom facilities (e.g., regular service) in accordance with all relevant local and state development standards. In addition, in accordance with CalGreen requirements (CCR, Title 24, Part 11), project source controls to improve water quality would be provided for outdoor material storage areas, outdoor trash storage/waste handling areas, and outdoor loading/unloading areas. Therefore, impacts to jurisdictional aquatic resources due to changes in water quality would be avoided and minimized through implementation of low-impact-development features and BMPs.

As discussed above, implementation of MM-BIO-2 (Designated Biologist Authority), MM-BIO-3 (Compliance Monitoring), MM-BIO-4 (Education Program), MM-BIO-5 (Construction Monitoring Notebook), MM-BIO-6 (Delineation of Property Boundaries), MM-BIO-8 (Hazardous Waste), SWPPP, low-impact-development features, BMPs, and

CalGreen requirements would reduce potential indirect (short-term and long-term) impacts to jurisdictional aquatic resources to less than significant.

6.5 Impact BIO-4: Wildlife Corridors and Nurseries

The Project site does not function as a wildlife corridor or habitat linkage and does not occur within any designated wildlife corridors of habitat linkages. Direct or indirect impacts to wildlife corridors and habitat connectivity are not anticipated; and would therefore be less than significant.

6.6 Impact BIO-5: Local Policies or Ordinances

California Desert Native Plants Act

Prior to the initiation of construction, the Project Applicant shall obtain the necessary permits, tags, and/or seals, and shall pay the appropriate fees for removal of any individuals of a species protected by the California Desert Native Plant Protection Act. This includes six Wiggin's cholla. **MM-BIO-15** (Desert Native Plants Removal Permit) requires compliance with the CDNPA.

Joshua Tree and Native Desert Vegetation Preservation Ordinance

Per City municipal code 14.04.040(I), the Project is required to obtain an Incidental Take Permit from CDFW. With the implementation of MM-BIO-1 (Western Joshua Tree Incidental Take Permit), the Project will comply with the City's ordinance.

Implementation of MM-BIO-1 (Western Joshua Tree Incidental Take Permit) and MM-BIO-15 (Desert Native Plants Removal Permit) would reduce potential impacts associated with local policies and ordinances to less than significant.

6.7 Impact BIO-6: HCP/NCCP

The project is not located within any formally adopted NCCP or HCP (CDFW 2019). The project is within the Draft West Mojave Plan area (BLM 2006). The BLM issued a Record of Decision for the West Mojave Plan in 2006, although the West Mojave Plan has not been formally adopted. The West Mojave Plan applies to projects on federal land, so the Project would not be processed under it. However, the project would not conflict with the conservation criteria associated with the West Mojave Plan. Therefore, there would be no impacts associated with an adopted habitat conservation plan.

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7 Mitigation Measures

The following mitigation measures shall be implemented to reduce the significant and potentially significant impacts identified in Chapter 6 to a less-than-significant level. Significant and potentially significant direct and indirect impacts to special-status species and sensitive vegetation communities can be mitigated to less than significant with implementation of the following measures:

The project has the potential to directly and indirectly impact species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by CDFW or USFWS, including special-status plant species such as western Joshua trees, native desert plants protected under the CDNPA and the City's Joshua Tree and Native Desert Vegetation Preservation Ordinance, burrowing owl, loggerhead shrike, desert tortoise, Crotch bumble bee, nesting migratory birds and raptors, and jurisdictional aquatic resources. Implementation of **MM-BIO-1** through **MM-BIO-15** is required to reduce impacts to a less-than-significant level.

MM-BIO-1 Western Joshua Tree Incidental Take Permit. Mitigation for direct impacts to 543 western Joshua trees will be fulfilled through attainment of a Western Joshua Tree Conservation Act (WJTCA) Incidental Take Permit and payment of the elected fees as described in Section 1927.3 of the WJTCA. In conformance with the reduced fee schedule prescribed for the project area, mitigation will consist of payment of $1,000 for each western Joshua tree five meters or greater in height, $200 for each western Joshua tree less than five meters but greater than 1 meter in height; and $150 for each western Joshua tree less than one meter in height. California Department of Fish and Wildlife (CDFW) determines the final fee.

MM-BIO-2 Designated Biologist Authority. A qualified biologist (the "designated biologist") shall be retained by the Project applicant to monitor construction activities. The designated biologist shall have authority to immediately stop any activity that does not comply with the biological resources mitigation measures recommended in this report and/or to order any reasonable measure to avoid the unauthorized take of an individual western Joshua tree or other sensitive biological resources.

MM-BIO-3 Compliance Monitoring. The designated biologist shall be on site daily during construction activities that entail the removal of vegetation and ground disturbance activities. The designated biologist shall conduct compliance inspections to minimize incidental take of western Joshua trees and impacts to other sensitive biological resources; prevent unlawful take of western Joshua trees; ensure that signs, stakes, and fencing of the construction footprint are intact; and ensure that impacts are only occurring within the direct impact footprint. Weekly written observation and inspection records that summarize oversight activities, compliance inspections, and monitoring activities required by the CDFW-issued Joshua tree Incidental Take Permit shall be prepared.

MM-BIO-4 Education Program. A construction worker education program (Worker Environmental Awareness Program [WEAP]) for all people employed or otherwise working in the Project site during vegetation removal and grading shall be administered before ground-disturbing impacts occur. The WEAP shall consist of a presentation from the designated biologist that includes a discussion of the biology and status of western Joshua tree, northern California legless lizard, California legless lizard, and Blainville's horned and loggerhead shrike, along with other relevant sensitive biological resources and the mitigation measures described in the Project's California Environmental Quality Act (CEQA)

compliance document. Interpretation for non-English-speaking workers shall be provided, and the same instruction shall be provided to any new workers before they are authorized to perform vegetation removal and ground-disturbing work in the project area. Upon completion of the WEAP, employees shall sign a form stating they attended the program and understand all protection measures. This training shall be repeated at least once annually for construction employees who will be conducting Project-related construction work.

MM-BIO-5 Construction Monitoring Notebook. The designated biologist shall maintain a construction-monitoring notebook on site throughout the construction period, which shall include a copy of the biological resources mitigation measures, permits, and a list of signatures of all personnel who have successfully completed the education program. The notebook will include a sign-off date page for the designated biologist to sign and date each construction date for which the project is in compliance. The project applicant or its successor in interest shall ensure that a copy of the construction monitoring notebook is available for review at the Project site upon request by CDFW.

MM-BIO-6 Delineation of Property Boundaries. Before beginning activities that would cause vegetation removal or other ground-disturbing impacts, the contractor shall, in consultation with the designated biologist, clearly delineate the boundaries of approved ground disturbance with fencing, stakes, or flags, consistent with the grading plan. All impacts outside the fenced, staked, or flagged areas shall be avoided, and all fencing, stakes, and flags shall be maintained until the completion of impacts in that area.

MM-BIO-7 Invasive Plant Management. To reduce the spread of invasive plant species, landscape plants within 200 feet of native vegetation communities shall not be on the most recent version of the Cal-IPC California Invasive Plant Inventory (http://www.cal-ipc.org/ip/inventory/index.php). Prior to the installation of landscaping, the City of Palmdale shall review and approve the Project's landscaping plan and verify that the prohibited plants will not be installed within 200 feet of native communities, and the City also shall conduct a site inspection after the landscaping has been installed and prior to issuance of a building occupancy permit to verify that the prohibited plants were not installed. Post-construction, the applicant, its successor in interest, or the building occupant shall be responsible for annual removal of invasive plant species on site by hand or mechanical methods, as feasible.

MM-BIO-8 Hazardous Waste. Construction contractors shall immediately stop work and, pursuant to pertinent state and federal statutes and regulations, arrange for repair and clean up by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so. Post-construction, the building user shall be responsible for compliance with the same requirements.

MM-BIO-9 Herbicides. Herbicide use on the site for invasive plant species control shall be limited and herbicides should only be used if it has been determined that hand or mechanical efforts are infeasible. To prevent drift, herbicides shall only be applied when wind speeds are less than 7 miles per hour. These requirements shall be made provisions of the project's construction contracts, landscape installation and maintenance contracts, and building occupant leases, subject to verification by the City of Palmdale upon request. All herbicide applications shall be performed by

a licensed applicator and in accordance with all applicable federal, state, and local laws and regulations.

MM-BIO-12 Pre-Construction Crotch's Bumble Bee Survey and Potential Incidental Take Permit. If Crotch's bumble bee is still a candidate for listing under the California Endangered Species Act or has been listed, a pre-construction survey for the species shall be conducted within the construction footprint prior to the start of initial vegetation removal or initial grading activities occurring during the Crotch's bumble bee nesting period (February 1 through October 31). The survey shall ensure that no nests for Crotch's bumble bee are located within the construction area. The pre-construction survey shall include 1) a habitat assessment and 2) focused surveys, both of which will be based on recommendations described in the "Survey Considerations for California Endangered Species Act (CESA) Candidate Bumble Bee Species," released by the California Department of Fish and Wildlife (CDFW) on June 6, 2023, or the most current at the time of construction. The habitat assessment and focused surveys will be performed by a biologist with a California Department of Fish and Wildlife-issued Scientific Collecting Permit for handling Crotch's bumble bee.

The habitat assessment shall, at a minimum, include historical and current species occurrences; document potential habitat onsite including foraging, nesting, and/or overwintering resources; and identify which plant species are present. For the purposes of this mitigation measure, nest resources are defined as abandoned small mammal burrows, bunch grasses with a duff layer, thatch, hollow trees, brush piles, and man-made structures that may support bumble bee colonies such as rock walls, rubble, and furniture. If nesting resources are present in the impact area, focused surveys will be conducted.

The focused survey will include at least three (3) survey passes that are not on sequential days or in the same week, preferably spaced two to four weeks apart. The timing of these surveys shall coincide with the Colony Active Period (April 1 through August 31 for Crotch's bumble bee). Surveys may occur between one (1) hour after sunrise and two (2) hours before sunset. Surveys will not be conducted during wet conditions (e.g., foggy, raining, or drizzling) and surveyors will wait at least one (1) hour following rain. Optimal survey conditions are when there are sunny to partly sunny skies with temperatures that are greater than 60° Fahrenheit. Surveys may be conducted earlier if other bees or butterflies are flying. Surveys shall not be conducted when it is windy (i.e., sustained winds greater than eight [8] mph). The qualified biologist shall look for nest resources suitable for bumble bee use. Ensuring that all nest resources receive 100% visual coverage, the qualified biologist shall watch the nest resources for up to five minutes, looking for exiting or entering worker bumble bees. Worker bees should arrive and exit an active nest site with frequency, such that their presence would be apparent after five minutes of observation. If a bumble bee worker is detected, then a representative shall be identified to species. The qualified biologist should be able to view several burrows at one time to sufficiently determine if bees are entering/exiting them depending on their proximity to one another. It is up to the discretion of the qualified biologist regarding the actual survey viewshed limits from the chosen vantage point which would provide 100% visual coverage; this could include a 30- to 50-foot-wide area. If a nest is suspected, the surveyor can block the entrance of the possible nest with a sterile vial or jar until nest activity is confirmed (no longer than 30 minutes).

Identification will include the qualified biologists netting/capturing the representative bumble bee in appropriate insect nets, per the protocol in U.S. National Protocol Framework for the Inventory and Monitoring of Bees. The bee shall be placed in a clear container for observation and photographically documented. The bee will be photographed using a macro lens from various angles to ensure recordation of key identifying characteristics. If bumble bee identifying characteristics cannot be adequately captured in the container due to movement, the container will be placed in a cooler with ice until the bumble bee becomes inactive (generally within 15 minutes). Once inert, the bumble bee shall be removed from the container and placed on a white sheet of paper or card for examination and photographic documentation. The bumble bee shall be released into the same area from which it was captured upon completion of identification. Based on implementation of this method on a variety of other bumble bee species, bees become active shortly after removal from the cold environment, so photography must be performed quickly.

If Crotch's bumble bee nests are not detected, no further mitigation shall be required, and no additional surveys shall be needed if construction begins within 14 days of the last survey for a given phase area. If construction in a given phase area does not start within 14 days of the last survey, or if construction in a given phase area stops for 14 days or longer, surveys shall be repeated if construction re-commences between February 1 and October 31.

The mere presence of foraging Crotch's bumble bees would not require implementation of additional minimization measures because they can forage up to 10 kilometers from their nests. If nest resources occupied by Crotch's bumble bee are detected within the construction area, no construction activities shall occur within 100 feet of the nest, or as determined by a City-approved qualified biologist through evaluation of topographic features or distribution of floral resources. The nest resources will be avoided for the duration of the Crotch's bumble bee nesting period (February 1 through October 31). Outside of the nesting season, it is assumed that no live individuals would be present within the nest as the daughter queens (gynes) usually leave by September, and all other individuals (original queen, workers, males) die. The gyne is highly mobile and can independently disperse to outside of the construction footprint to surrounding open space areas that support suitable hibernacula resources.

A written survey report will be submitted to the City within 30 days of the pre-construction survey and shall be reviewed and approved by the City before the start of grading and construction activities. The survey report shall also be submitted to CDFW within the same timeframe for its consideration and action in accordance with applicable laws and regulations. The report will include survey methods, weather conditions, and survey results, including a list of insect species observed and a figure showing the locations of any Crotch's bumble bee nest sites or individuals observed. The survey report will include the qualifications/resumes of the surveyor(s) and the qualified biologist(s), detailed habitat assessment, and photo vouchers. If Crotch's bumble bee nests are observed, the survey report shall also include recommendations for avoidance, and the location information will be submitted to the California Natural Diversity Database (CNDDB) at the time of, or prior to, submittal of the survey report.

If a Crotch's bumble bee nest is found, the Project applicant will consult with CDFW regarding the need to obtain an Incidental Take Permit. Any measures determined to be necessary through the Incidental Take Permit process to offset impacts to Crotch's bumble bee may supersede measures

provided in this CEQA document and shall be incorporated into a habitat mitigation and monitoring plan.

In the event an Incidental Take Permit is needed, mitigation for direct impacts to Crotch's bumble bee will be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the project, or as otherwise determined through the Incidental Take Permit process. Mitigation will be accomplished either through off-site conservation or through a CDFW-approved mitigation bank. If mitigation is not purchased through a mitigation bank, and lands are conserved separately, a cost estimate will be prepared to estimate the initial start-up costs and ongoing annual costs of management activities for the management of the conservation easement area(s) in perpetuity. The funding source will be in the form of an endowment to help the qualified natural lands management entity that is ultimately selected to hold the conservation easement(s). The endowment amount will be established following the completion of a project-specific Property Analysis Record to calculate the costs of in-perpetuity land management. The Property Analysis Record will take into account all management activities required in the Incidental Take Permit to fulfill the requirements of the conservation easement(s), which are currently in review and development.

MM-BIO-11 Special-Status Wildlife Relocation Plan. Prior to commencement of any earthmoving activities or the pre-construction staging of equipment on the Project site, the Project Applicant shall contract with a City-approved biologist to develop a Preconstruction Wildlife Survey and Relocation Plan for terrestrial reptiles, including the northern California legless lizard, California legless lizard, and Blainville's horned lizard. The Applicant will work with the City to identify potential relocation sites that have suitable habitat for the species. The Preconstruction Wildlife Survey and Relocation Plan shall be submitted to City for review prior to any ground-disturbing activities within potentially occupied habitat. The

The Plan shall include, at a minimum, the following:

(1) Protocols for pre-construction surveys to flush out and/or move identified special status wildlife within the Project site, as feasible.

(2) The timing, frequency, and locations where surveys should be conducted.

- Surveys will be conducted 24 hours prior to construction activities and repeated the morning of the proposed activity.
- Surveys shall be conducted in all areas anticipated to be subject to vegetation clearing.

(3) The habitat and conditions in the proposed relocation site(s).

(4) The methods that would be used for trapping and relocating identified species.

- All equipment used in the effort will be cleaned and decontaminated to minimize the spread of herpetofaunal pathogens.[2]

(5) Protocols for documentation/recordation of the species and number of animals relocated.

- Relocations shall be logged and made available to the City, if requested.

[2] Julian et al. 2020. Minimizing the Spread of Herpetofaunal Pathogens in Aquatic Habitats by Decontaminating Construction Equipment. Herpetological Review, 2020, 51(3), 472–483. https://parcplace.org/wp-content/uploads/2020/11/Julian-2020-Decontamination-for-Herps-for-large-equipment.pdf.

(6) The timing and frequency of reports documenting the results of the surveys.

MM-BIO-12 Pre-Construction Burrowing Owl Survey and Potential Incidental Take Permit. Burrowing owl has the potential to occur as a transient during wintering, dispersal, and migration. Focused pre-construction surveys for burrowing owl shall be conducted beginning 30 days prior to the commencement of Project activities with the last/fourth survey being conducted three days prior to the commencement of vegetation removal. If burrowing owl are located during any focused pre-construction surveys, or during the monitoring of construction activities, a 500-foot no-work buffer shall be established around the location of the burrow(s), and the City and California Department of Fish and Wildlife (CDFW) shall be notified. No Project activities will be allowed and CDFW shall be consulted regarding the potential need for an Incidental Take Permit per California Fish and Game Code 2081.

In the event an Incidental Take Permit is needed, mitigation for direct impacts to Crotch's bumble bee will be fulfilled through compensatory mitigation at a minimum 1:1 nesting habitat replacement of equal or better functions and values to those impacted by the project, or as otherwise determined through the Incidental Take Permit process. Mitigation will be accomplished either through off-site conservation or through a CDFW-approved mitigation bank. If mitigation is not purchased through a mitigation bank, and lands are conserved separately, a cost estimate will be prepared to estimate the initial start-up costs and ongoing annual costs of management activities for the management of the conservation easement area(s) in perpetuity. The funding source will be in the form of an endowment to help the qualified natural lands management entity that is ultimately selected to hold the conservation easement(s). The endowment amount will be established following the completion of a project-specific Property Analysis Record to calculate the costs of in-perpetuity land management. The Property Analysis Record will consider all management activities required in the Incidental Take Permit to fulfill the requirements of the conservation easement(s), which are currently in review and development.

MM-BIO-13 Pre-Construction Nesting Bird Survey and Avoidance. Vegetation removal activities shall occur between September 1 and January 31 to avoid the migratory bird nesting season (typically February 1 through August 31), to reduce any potential significant impact to birds that may be nesting on the Project site. If construction activities must occur during the migratory bird nesting season, an avian nesting survey of the Project site and within 500 feet of all impact areas must be conducted to determine the presence/absence of protected migratory birds and active nests. The avian nesting survey shall be performed by a qualified wildlife biologist within 72 hours prior to the start of construction in accordance with the Migratory Bird Treaty Act and California Fish and Game Code Sections 3503, 3503.5, and 3513. If an active bird nest is found, the nest shall be flagged and mapped on the construction plans along with an appropriate buffer established around the nest, which will be determined by the biologist based on the species' sensitivity to disturbance. The nest area shall be avoided until the nest is vacated and the juveniles have fledged. The nest area shall be demarcated in the field with flagging and stakes or construction fencing. On-site construction monitoring shall also be conducted when construction occurs near an active nest buffer. No project activities may encroach into established buffers without the consent of a monitoring biologist. The buffer shall remain in place until it is determined the nestlings have fledged and the nest is no longer considered active.

MM-BIO-14 Trash and Debris. The following avoidance and minimization measures shall be implemented during project construction.

(1) Fully covered trash receptacles that are animal-proof shall be installed and used by the operator to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Trash contained within the receptacles shall be removed at least once a week from the Project site.

(2) Construction work areas shall be kept clean of debris, such as cable, trash, and discarded construction materials. All construction/contractor personnel shall collect and properly dispose of all litter and food waste from the Project site daily.

MM-BIO-15 Desert Native Plants Removal Permit. Prior to the commencement of project activities, the project applicant shall apply for a permit with the County of Los Angeles for removal of protected native desert plants as required under California Desert Native Plants Act (Food and Agricultural Code, Division 23). The project shall comply with any conditions of approval imposed by the applicable review authority upon issuance of the permit.

The permit application form shall specify information outlined in the California Desert Native Plant Act Section 80114, which includes but is not limited to, the number and species of native plants to be removed, a description of the real property from which the plants are to be removed, and in the case that relocation is required, the destination of the native plants and the manner in which the plants are to be salvaged. Pursuant to the California Desert Native Plants Act, tags or seals issued by the County must be attached to the native plants at the time of harvesting and before transporting plants to their permanent relocation site(s) and must remain attached to the plant until transplanted into its ultimate destination. Transport of salvaged plants will occur as prescribed by the County.

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Appendix A

Mohave Ground Squirrel Protocol Survey Results

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August 4, 2024

Megan Enright
Dudek
605 Third Street
Encinitas, CA 92024
Via email: menright@dudek.com

Subject: Results of a Mohave Ground Squirrel Protocol Survey for the Palmdale 61 Project, Palmdale, Los Angeles County, California

Dear Ms. Enright:

The purpose of this report is to document the results of a California Department of Fish and Wildlife (CDFW) protocol survey for Mohave ground squirrel (*Xerospermophilus mohavensis*; MGS) conducted by Dipodomys Ecological Consulting LLC (DEC) for the 61-acre Palmdale 61 Project (project). Presented in this report are a description of the project, project location, the biological setting of the site, MGS natural history, survey methodology, results of trapping efforts for MGS, and conclusions.

Project Description and Location

PI Development LLC proposes to develop a 61-acre area of desert land within the City of Palmdale, Los Angeles County, California. The project consists of five adjacent parcels located along Rancho Vista Boulevard, between Division Street and Sierra Highway (APNs 3006-027-001; 3006-027-002; 3006-027-003; 3006-027-004; 3006-027-005). (**Figures 1 and 2**). Surrounding land use includes residential developments to the west and south, undeveloped desert land to the north, and industrial development to the east. Existing disturbance levels are moderate resulting primarily from off-highway vehicle use (OHV) and illegal dumping. The project site can be found on U.S. Geological Survey (USGS) 7.5-minute Ritter Ridge topographic quadrangle map within Section 14, Township 6 North and Range 12 West, as shown in **Figure 1**, Project Location.

Biological Setting

The vegetation community in the project consists primarily of *Ephedra nevadensis-Lycium andersonii-Grayia spinosa* Shrubland Alliance (CA CDFW Code 33.185.00). Dominant trees and shrubs within the project include western Joshua tree (*Yucca brevifolia*), Cooper's boxthorn (*Lycium cooperi*), Nevada-jointfir, spiny hopsage (*Grayia spinosa*) creosote bush (*Larrea tridentata*), white bursage (*Ambrosia dumosa*), winterfat (*Krascheninnikovia lanata*), and California buckwheat (*Eriogonum fasciculatum*). Dominant herbaceous plants within the project include red-stemmed filaree (*Erodium cicutarium*), fiddleneck (*Amsinckia tessellata*), common phacelia (*Phacelia distans*), goldfields (*Lasthenia californica*), Parry's linanthus (*Linanthus parryae*), and Mediterranean grass (*Schismus barbatus*). A full compendium of plants documented onsite and representative site photographs are included in

Attachment B and Attachment C. The topography within the project is flat with coarse sandy soils. Site elevation ranges from 2,513-2,536 feet above meal sea level (amsl).

Mohave Ground Squirrel Natural History

Mohave ground squirrels are medium-sized (210-230mm, 85-130g), diurnal squirrels. Their dorsal pelage is light gray to cinnamon-brown, while their ventral side is creamy. Unlike round-tailed ground squirrels (*Xerospermophilus tereticaudus*), which occur sympatrically in the southeast portion of their range, MGS have a short, flat tail that is light-colored on its underside, and have brown cheeks instead of white.

MGS inhabit a small geographic area in the western Mojave Desert. This species ranges from Palmdale in the southwest, the Lucerne Valley in the southeast, Olancha in the northwest, and the Avawatz Mountains in the northeast (Gustafson 1993). Occurrences in the southern portion of their range are rare, with the most recent occurrence near the project documented on the California Natural Diversity Database (CNDDB) in 1984 (**Figure 3**). Vegetation communities (as classified by the California Native Plant Society) typically associated with MGS include Mojave Creosote Scrub, Shadscale Scrub, Desert Saltbush Scrub, Desert Sink Scrub, and Joshua Tree Woodland. MGS feed primarily on the leaves and seeds of forbs and shrubs. In the northern portion of their range, MGS have been found to feed on spiny hopsage, winterfat, and saltbush (*Atriplex* sp.), especially in early spring when forbs are unavailable, during summer when forbs have dried out, and during drought conditions (Leitner and Leitner 1998). Recent studies have also indicated that MGS feed on the following forbs and shrubs: freckled milkvetch (*Astragalus lentiginosus*), Mojave lupine (*Lupinus odoratus*), buckwheat (*Eriogonum* sp.), white mallow (*Eremalche exilis*), fiddleneck, Russian thistle, desert pincushion (*Chaenactis* sp.), Cryptantha (*Cryptantha pterocarya*), Bigelow's tickseed (*Leptosyne bigelovii*), Valley lessingia (*Lessingia glandulifera*), desert dandelion (*Malacothrix glabrata*), Phacelia (*Phacelia* sp.), wire lettuce (*Stephanomeria* sp.) Anderson's desert thorn, spiny horsebrush (*Tetradimya spinosa*), and Joshua tree (Leitner and Leitner 2017).

MGS have adapted to live in hot desert environments by limiting their activity aboveground through estivation and hibernation. The timing of emergence from hibernation varies by location: in the northern portion of their range male MGS emerge mid-March (Leitner and Leitner 1998); however, in the southern portion of their range, MGS may emerge as early as mid-January (Recht 1977). Throughout their active period, MGS store fat in preparation for estivation, which typically occurs between July and September, but may occur as early as April or May during drought conditions (Leitner et al. 1995). MGS reproduction is dependent on fall and winter rains and individuals may forgo breeding entirely if low rainfall (<80mm) results in reduced herbaceous plants (Leitner and Leitner 2017).

Throughout the range of MGS, they may co-occur with antelope ground squirrels (*Ammospermophilus leucurus*), round-tailed ground squirrels, and California ground squirrels (*Otospermophilus beecheyi*). MGS may be misidentified with round-tailed ground squirrels, but this is unlikely to occur with antelope ground squirrels, because the latter species has white dorsal stripes that makes them resemble a chipmunk more than an MGS. California ground squirrels are also notably larger and are not typically confused with MGS.

MGS are classified as threatened and are protected under the California Endangered Species Act. Primary threats to MGS include limited distribution, low abundance, and habitat loss from by converting suitable habitat to urban, suburban, agricultural, and military land uses (Gustafson 1993, Leitner and Leitner 2017).

Methods

Mohave ground squirrel (MGS) protocol surveys for the Palmdale 61 Project were conducted by Karla Flores (Scientific Collection Permit SC-10572; MOU Principal Investigator) and Karl Fairchild (SCP S-182820007-18333-001; MOU Principal Investigator) in accordance with the 2023 CDFW MGS Survey Guidelines. The survey consisted of an initial visual survey followed by concurrent live trapping and camera trapping efforts. Details for each survey type are described below.

Visual Survey

An initial review of the California Natural Diversity Database (CNDDB) was conducted prior to the visual assessment to determine the historical recorded occurrences of MGS near the project site (**Figure 3**). The visual survey was conducted by Karla Flores and Karl Fairchild on April 6, 2024. The visual survey consisted of driving and walking throughout the project site to identify suitable habitat for MGS. This included identifying plants known to provide forage material for MGS such as spiny hopsage, winterfat, Cooper's boxthorn, Anderson's desert thorn, and Joshua tree (Leitner 2022). Areas supporting suitable habitat for MGS where these plants are concentrated were recorded on an aerial map. Suitable soil types for burrowing and burrow densities were also noted.

Live Trapping

Live trapping surveys were conducted by Karla Flores and were conducted in accordance with the updated 2023 MGS Survey Guidelines. The live trapping survey consisted of setting up one 100-trap grid arranged in a 10x10 configuration (315m x 315m) in the center of the project. Coordinate locations for the grid are listed in **Table 1**. Traps within the grid were spaced 35 meters apart and utilized XLK Sherman live-traps (3x3.75x12") with accompanying A-frame cardboard shade covers staked to the ground with metal tent stakes. All traps were baited with 4-way livestock feed and peanut butter powder and were opened within one hour of sunrise and were checked no more than every four hours. All traps were closed within one hour of sunset. Trapping was conducted when temperatures were between 50- and 90-degrees Fahrenheit, and inclement conditions (rain, thunderstorms) were not present. All animals captured were released at their capture location, and the following information recorded for each capture: species, weight, age, sex, and reproductive condition. Live-trapping surveys were conducted for a period of five days in each of the three survey windows established by the MGS survey guidelines (1st: March 15-April 3; 2nd May 1-31;3rd June 1-July 15). Details for each survey period are presented in **Table 2.** MGS Survey and Trapping Forms, including weather details, are presented in **Attachment A**.

TABLE 1
UTM COORDINATES FOR CORNERS OF LIVE TRAPPING GRID

Corner	Zone	Easting	Northing
SW	11	396585	3829525
NW	11	396585	3829840
SE	11	396900	3829525
NE	11	396900	3829840

*Datum: WGS 1984

TABLE 2
MOHAVE GROUND SQUIRREL SURVEY DATE AND TYPE

Session	Date	Survey Type
1	April 7-11, 2024	LT/CT
2	May 3-7, 2024	LT/CT
3	June 10-14, 2024	LT/CT

LT: Live Trapping CT: Camera Trapping

Camera Trapping

Camera trapping surveys were conducted concurrent with live-trapping efforts as required in the 2023 MGS Survey Guidelines. Camera surveys consisted of setting up a total of five camera trapping stations throughout the survey grid. Each camera trap station consisted of a Bushnell Core Low Glow Trail Camera (Model 1199932CB) secured to a 36-inch U-post facing a bait station. The bait station consisted of a feeding tube filled with 4-way livestock feed staked to the ground with a 12-inch railroad spike. Cameras operated 24 hours a day, concurrent with live-trapping surveys, and followed the setup specifications described in Attachment B of the MGS Survey Guidelines. Coordinate locations for each camera trap station are listed below in **Table 3**. Photos from the camera trap stations were downloaded and reviewed by the Principal Investigator after every five-day trapping session. A list of species detected at the camera trap stations is included in **Table 5**.

TABLE 3
COORDINATE LOCATIONS FOR CAMERA TRAP STATIONS

Camera	Zone	Easting	Northing
1	11	396577	3829547
2	11	396609	3829787
3	11	396675	3829678
4	11	396889	3829840
5	11	396841	3829568

*Datum: WGS 1984

Results

Visual Survey

Data collected during the visual survey shows that MGS habitat is present within the project. The project consists of *Ephedra nevadensis-Lycium andersonii-Grayia spinosa* Shrubland Alliance which includes several plants that are consumed by MGS, including two primary MGS food plants: winterfat and spiny hopsage (though in low density). Other plants also associated with MGS in microhistology and metabarcoding studies (Leitner 2022) are present onsite, including: Joshua tree, creosote bush, Cooper's boxthorn, red-stemmed filaree and fiddleneck. Visual observations of burrows and burrow complexes showed that soil onsite is suitable for burrowing.

Live Trapping

No Mohave ground squirrels were captured while live-trapping during the three survey windows. Live-trapping captures consisted entirely of non-sensitive species: white-tailed antelope ground squirrel, California ground squirrel (*Otospermophilus beecheyi*), desert cottontail (*Sylvilagus audubonii*) and Great Basin whiptail (*Aspidoscelis tigris*) (**Table 4; Figure 4**).

TABLE 4
RESULTS OF MOHAVE GROUND SQUIRREL LIVE TRAPPING SURVEYS

Common name	Scientific name	Session			Total
		1	2	3	
White-tailed antelope ground squirrel	*Ammospermophilus leucurus*	39	61	35	135
California ground squirrel	*Otospermophilus beecheyi*	5	21	49	75
Desert cottontail	*Sylvilagus audubonii*	1	0	0	1
Great Basin Whiptail	*Aspidoscelis tigris*	1	14	2	17
	Total	46	96	86	**228**

Camera Trapping

No Mohave ground squirrels were detected in the 101,158 images reviewed from the camera trapping surveys. However, a total of 12 non-sensitive species were observed visiting the five camera stations. Details for species observed at camera trap stations are listed in **Table 5** as well as the survey window during which each species was observed.

TABLE 5
RESULTS OF MOHAVE GROUND SQUIRREL CAMERA TRAPPING

Common Name	Scientific Name	Camera 1	Camera 2	Camera 3	Camera 4	Camera 5
White-tailed antelope ground squirrel	*Ammospermophilus leucurus*	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Great Basin whiptail	*Aspidoscelis tigris tigris*	.	.	2	.	.
Cactus wren	*Campylorhynchus brunneicapillus*	.	.	3	.	.
Red racer	*Coluber flagellum piceus*	.	.	.	.	3
Common raven	*Corvus corax*	.	1	1,2,3	.	1,2
Kangaroo rat	*Dipodomys sp.*	1,3	1,2,3	1,2,3	1,2,3	1,3
Black-tailed jackrabbit	*Lepus californicus*	1,3	.	1,2,3	1,2,3	1,2,3
California ground squirrel	*Otospermophilus beecheyi*	1,2,3	1,2,3	1,2,3	1,2,3	1,2,3
Deer mouse	*Peromyscus sp.*	1,2,3	1,2,3	1,2,3	.	1,2,3
Say's phoebe	*Sayornis saya*	3	.	.	.	.
Desert cottontail	*Sylvilagus audubonii*	1,2,3	1,2,3	1,2,3	1,2,3	1,3
Mourning dove	*Zenaida macroura*	.	.	.	2	.

Conclusions

The Palmdale 61 Project is located within the southwestern portion of the MGS range where MGS population densities have historically been low, and entirely absent from the southwestern portion since at

least the mid-1990s (Leitner 2021). A query of the California Natural Diversity Database (CNDDB) for the Ritter Ridge quadrangle and the surrounding eight quadrangles yielded only six MGS occurrences. The closest of these occurrences was documented in 1944 approximately 0.52 miles south of the project in an area that is now developed. The most recent occurrence was documented in 1984 approximately 4.71 miles north of the project. This site was re-trapped in 2005 with negative results, and the area is now developed (**Figure 3**).

The closest MGS core population to the project, described in the 2019 CDFW MGS Conservation Strategy, is the Edwards Air Force Base core population area located approximately 26 miles northeast of the project. However, even at this core population area, studies have found that western portion of the Edwards Air Force Base core population area no longer supports an MGS population, given that surveys conducted since 1998 have failed to detect MGS there (Leitner 2008; 2015; 2021).

Additional studies documenting MGS population trends and geographic distribution from 1998-2020 have concluded that MGS are no longer present in the southern portion of their range (Leitner 2008; 2015; 2021). The most recent of these studies covering the period of 2013-2020 found that while MGS continue to be detected in the four known core population areas (Coso Range-Olancha, Little Dixie Wash, Coolgardie Mesa-Superior Valley, and Edwards Air Force Base), the southern portion of the historical range of MGS remains unoccupied (Leitner 2021). Results of this 2021 study underscored previous conclusions that MGS are not only extirpated from the southern portion of the range, but there is also no indication across the 22-year period of study that MGS are attempting to reoccupy this portion of the range.

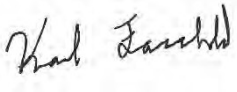
This local extirpation of MGS in the southern portion of the range may be tied to low rainfall levels and climate change. Data collected at the Coso Study Area showed that MGS reproduction is sensitive to winter precipitation levels and that MGS reproduction correlates with a minimum threshold of 65mm of winter precipitation. Records from the Coso study area showed that following a prolonged drought in the Mojave Desert from 1989-1991, MGS did not reproduce for 2 years. Given that MGS detections in the southern portion of the range began to drop in 1991, it has been suggested that the local extirpation of MGS in this portion of the range may be linked to that drought event. This suggests that subsequent years with drought conditions exacerbated by climate change may have created conditions that are unsuitable to support an MGS population and may be inhibiting recolonization/re-occupancy by MGS (Leitner 2021).

Collectively, these population trends and survey results suggest that MGS are unlikely to occupy the project and no impacts to MGS are expected due to construction activities. Based on the results of this survey, CDFW survey guidelines indicate that the department will stipulate that no MGS occur on the project site. This stipulation will expire March 15, 2025.

I hereby certify that the information in this report is true, and that it conforms to accepted biological standards. Please feel free to contact Karla Flores by phone at (619) 972-4319 or by email at kflores@dipodomysecological.com or Karl Fairchild by phone at (541) 609-1038 or by email at kfairchild@dipodomysecological.com, with any questions regarding this report.

Sincerely,





Karla Flores
Principal Investigator

Karl Fairchild
Principal Investigator

Figures and Attachments
Figure 1-Project Location
Figure 2-Survey Area
Figure 3- Historical MGS Occurrences
Figure 4- Results
Figure 5-Vegetation Communities

Attachment A-CDFW Mohave Ground Squirrel Survey and Trapping Form(s)
Attachment B-Species Compendium
Attachment C-Representative Photographs

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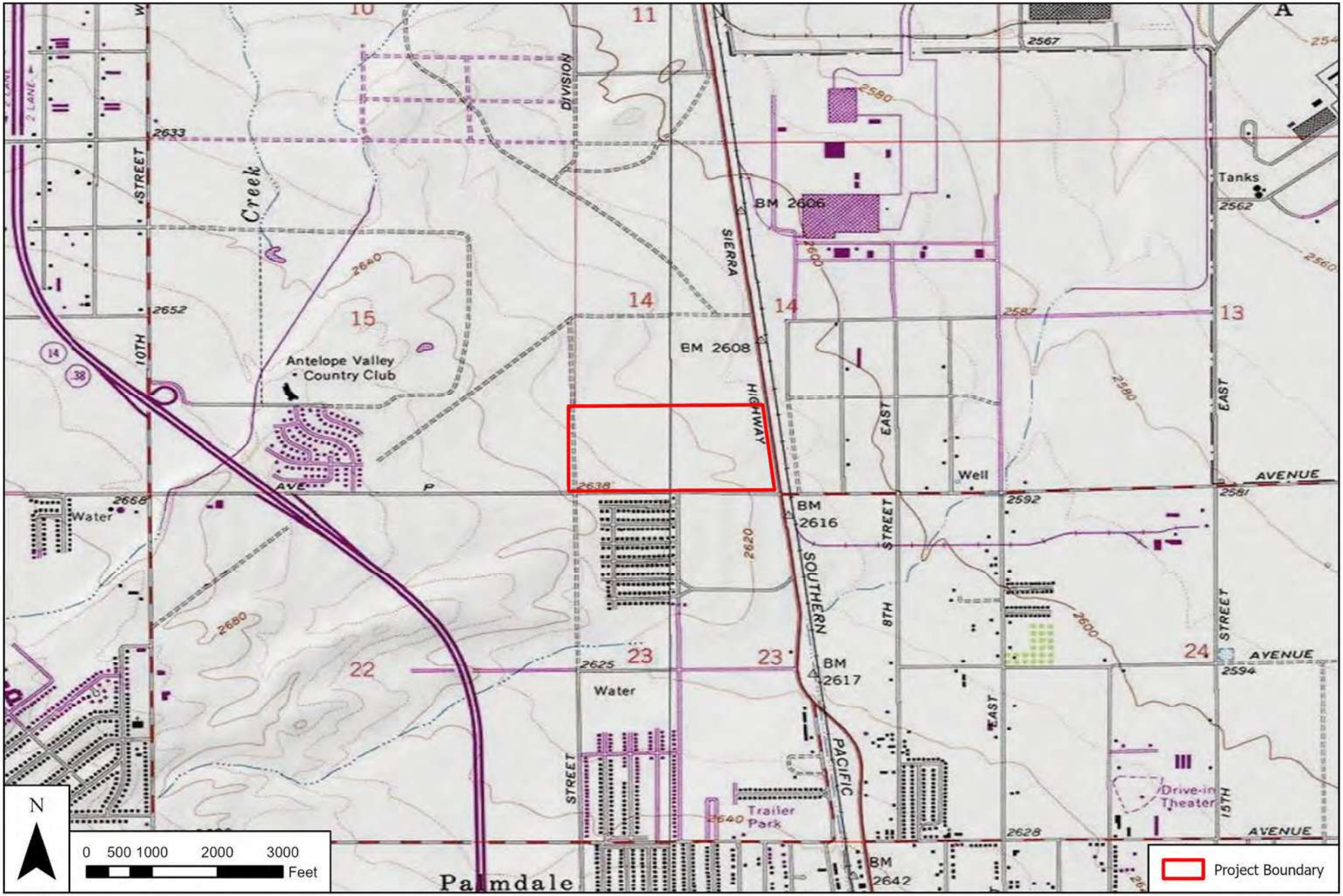
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SOURCE: ESRI

Palmdale 61 Project

DIPODOMYS
ECOLOGICAL CONSULTING, LLC

Figure 1

Project Location



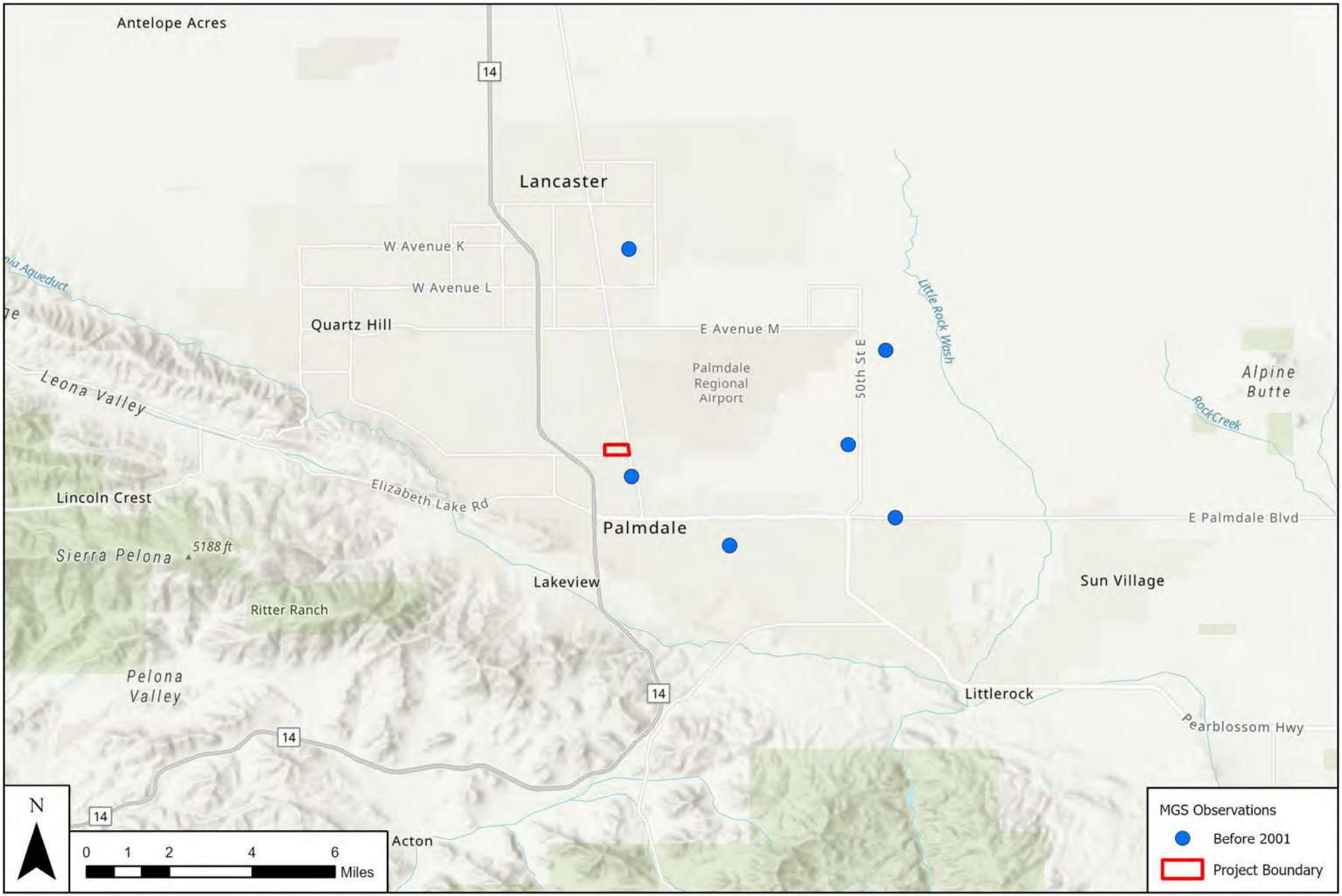
SOURCE: ESRI

Palmdale 61 Project

DIPODOMYS
ECOLOGICAL CONSULTING, LLC

Figure 2

Survey Area



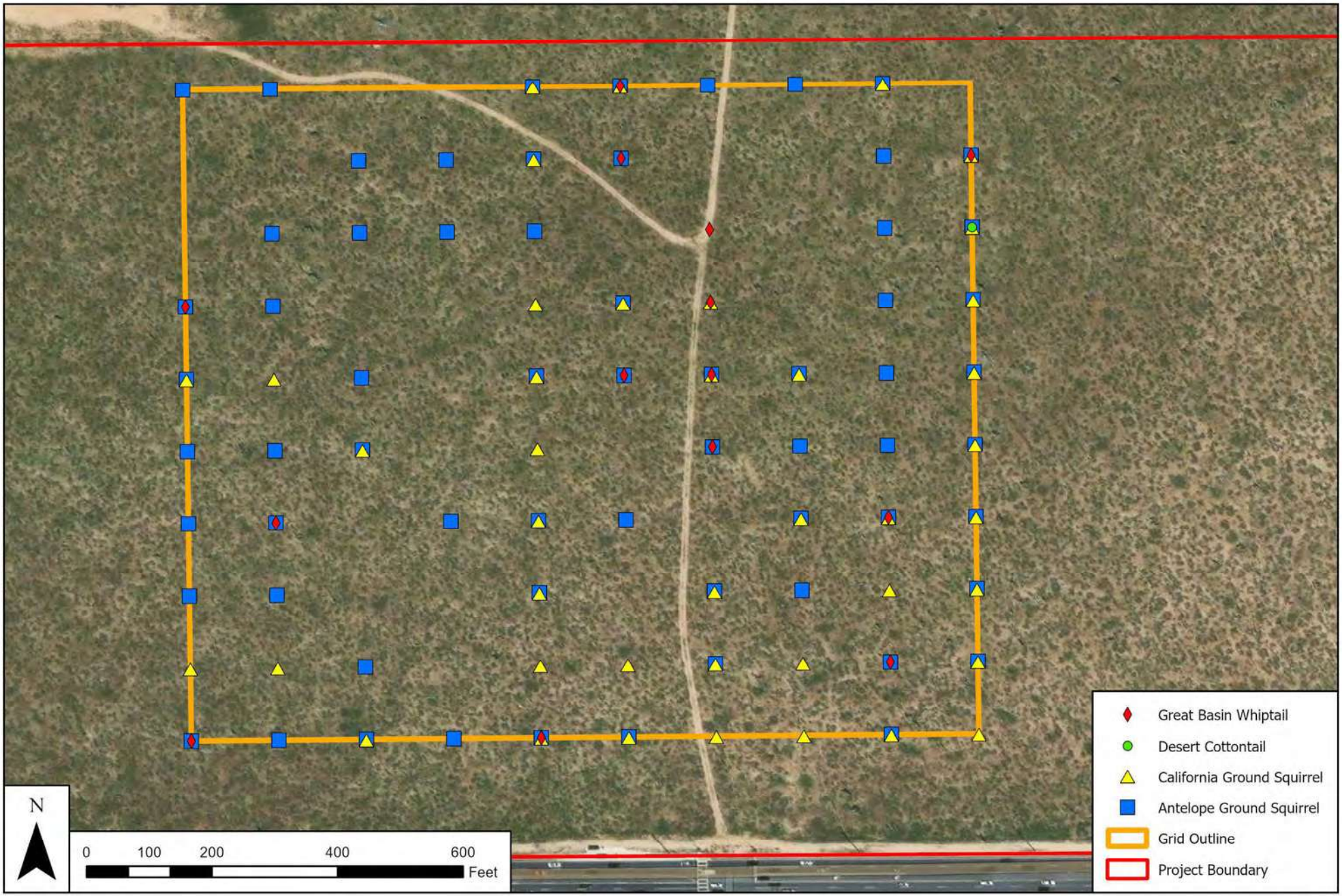
SOURCE: ESRI

Palmdale 61 Project

DIPODOMYS
ECOLOGICAL CONSULTING, LLC

Figure 3

Historical MGS Observations



SOURCE: ESRI

Palmdale 61 Project

DIPODOMYS
ECOLOGICAL CONSULTING, LLC

Figure 4

Trapping Results

Attachment A

MOHAVE GROUND SQUIRREL SURVEYS - Site Characteristics Form

PI or Reporting Biologist: Karla Flores

Affiliation: Dipodomys Ecological Consulting, LLC

PROJECT INFORMATION

Project Name: Palmdale 61
Topo Quad Name(s): Ritter Ridge
County: Los Angeles
Project Site Area (acres): 61
Area of Potential MGS Habitat (acres): 61
Habitat Assessment Date(s): 4/6/20242

TRAP GRID INFORMATION	*Trap Grid 1*	*Trap Grid 2*	*Trap Grid 3*	*Trap Grid 4*	*Trap Grid 5*
Trap Grid Name (if applicable):	Grid 1				
Trap Grid Configuration	10x10				
Latitude:	34.60235282				
Longitude:	-118.1278394				
Datum:	WGS 84				
Elevation (feet):	2,536				
Slope (%):	0-2%				
Aspect (degrees):	135				
Landforms:	Plain				
Substrate Types:	Coarse sand				
Vegetation Alliance:	Ephedra nevadensis - Lycium andersonii - Grayia spinosa Shrubland Alliance				
Associated Perennial 1	creosote bush				
Associated Perennial 2	winterfat (Krascheninnikovia lanata)				
Associated Perennial 3	Cooper's boxthorn (Lycium andersonii)				
Associated Perennial 4	California buckwheat (Eriogonum fasciculatum)				
Associated Perennial 5	western Joshua tree (Yucca brevifolia)				
Annual 1	red-stemmed filaree (Erodium cicutarium)				
Annual 2	fiddleneck (Amsinckia tessellata)				
Annual 3	common phacelia (Phacelia distans)				
Annual 4	goldfields (Lasthenia californica)				
Annual 5	Parry's linanthus (Linanthus parryae)				
Disturbance Impacts (Severe, Moderate, Minimal)	Moderate				
Humans Present	Yes				
Trash	Yes				
Roads/OHV Use	Yes				
Livestock Present	No				
Livestock Sign	No				
Ravens	Yes				
Other					

MOHAVE GROUND SQUIRREL SURVEYS - Weather Summary Form
PI or Reporting Biologist: **Karla Flores**
Project Name: **Palmdale 61**

TRAP GRID INFORMATION	*Trap Grid 1*	*Trap Grid 2*	*Trap Grid 3*	*Trap Grid 4*	*Trap Grid 5*
Trap Grid Name (if applicable):	**Grid 1**				
Session 1 - Day 1					
Date, Time	4/7/2024				
Shade Temp (C)	15.2				
Percent Cloud Cover	30				
Wind Speed	3				
Day 2					
Date, Time	4/8/2024				
Shade Temp (C)	11.8				
Percent Cloud Cover	0				
Wind Speed	1				
Day 3					
Date, Time	4/9/2024				
Shade Temp (C)	14.4				
Percent Cloud Cover	0				
Wind Speed	2				
Day 4					
Date, Time	4/10/2024				
Shade Temp (C)	15.9				
Percent Cloud Cover	0				
Wind Speed	1				
Day 5					
Date, Time	4/11/2024				
Shade Temp (C)	19.2				
Percent Cloud Cover	0				
Wind Speed	1				
Session 2 - Day 1					
Date, Time	5/3/2024				
Shade Temp (C)	18				
Percent Cloud Cover	0				
Wind Speed	2				
Day 2					
Date, Time	5/4/2024				
Shade Temp (C)	16.9				
Percent Cloud Cover	15				
Wind Speed	3				
Day 3					
Date, Time	5/5/2024				
Shade Temp (C)	11.1				
Percent Cloud Cover	30				
Wind Speed	4				
Day 4					
Date, Time	5/6/2024				
Shade Temp (C)	13.3				
Percent Cloud Cover	0				
Wind Speed	1				
Day 5					
Date, Time	5/7/2024				
Shade Temp (C)	17.1				
Percent Cloud Cover	0				
Wind Speed	1				
Session 3 - Day 1					
Date, Time	6/10/2024				
Shade Temp (C)	15.7				
Percent Cloud Cover	0				
Wind Speed	1				
Day 2					
Date, Time	6/11/2024				
Shade Temp (C)	20				
Percent Cloud Cover	0				
Wind Speed	1				
Day 3					
Date, Time	6/12/2024				
Shade Temp (C)	22.5				
Percent Cloud Cover	0				
Wind Speed	2				
Day 4					
Date, Time	6/13/2024				
Shade Temp (C)	23				
Percent Cloud Cover	0				
Wind Speed	2				
Day 5					
Date, Time	6/14/2024				
Shade Temp (C)	17.7				
Percent Cloud Cover	0				
Wind Speed	2				

MOHAVE GROUND SQUIRREL SURVEYS - Live trapping Results Form

PI or Reporting Biologist: **Karla Flores**

Project Name: **Palmdale 61**

Grid Name or Number	Trap Session	Start Date	End Date	Trap-days	Number of MGS	Number of AGS	Notes/Comments
Grid 1	1	4/7/2024	4/11/2024	5	0	39	
Grid 1	2	5/3/2024	5/7/2024	5	0	61	
Grid 1	3	6/10/2024	6/14/2024	5	0	35	

MOHAVE GROUND SQUIRREL SURVEYS - Camera trapping Results Form

PI or Reporting Biologist: Karla Flores

Project Name: Palmdale 61

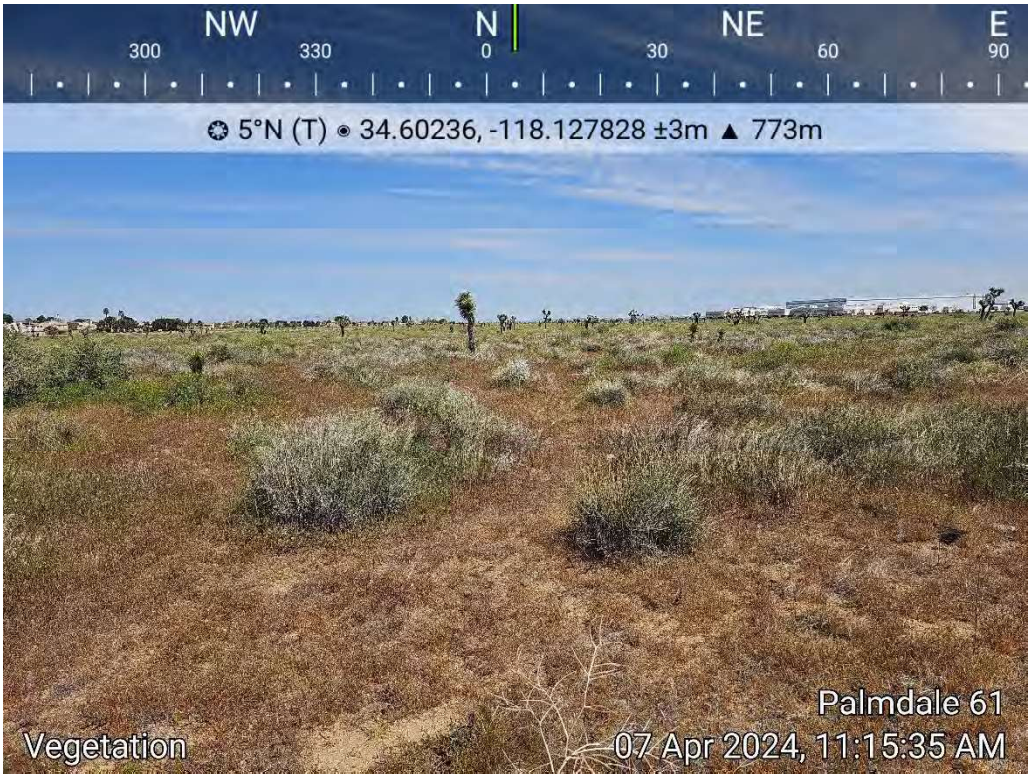
			Camera Location (dec. deg.)		Date and Time in Operation				Adult MGS Detected			Juvenile MGS Detected			MGS Detection Dates			
Grid Name or Number	**Camera #**	**Session Num.**	**Latitude**	**Longitude**	**Start**	**End**	**Number of Photos**	**Total Num. MGS Photos**	**Male**	**Female**	**Unknown**	**Male**	**Female**	**Unknown**	**First**	**Last**	**Num. Days MGS Detected**	**Other Species Recorded**
Palmdale 61	1	1	34.60255037	-118.1279293	04/07/2024 11:03	04/11/2024 16:21	8762	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, deer mouse, desert cottontail, kangaroo rat, white-tailed antelope ground squirrel, black-tailed jackrabbit
Palmdale 61	2	1	34.60471751	-118.1276096	04/07/2024 11:29	04/11/2024 16:26	9418	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, deer mouse, desert cottontail, kangaroo rat, white-tailed antelope ground squirrel, common raven
Palmdale 61	3	1	34.60374138	-118.1268767	04/07/2024 11:51	04/11/2024 16:36	3566	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, deer mouse, desert cottontail, kangaroo rat, white-tailed antelope ground squirrel, common raven, black-tailed jackrabbit
Palmdale 61	4	1	34.60522355	-118.1245628	04/07/2024 12:38	04/11/2024 16:43	4880	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, desert cottontail, kangaroo rat, white-tailed antelope ground squirrel, black-tailed jackrabbit
Palmdale 61	5	1	34.6027663	-118.1250532	04/07/2024 12:20	04/11/2024 16:51	6373	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, desert cottontail, kangaroo rat, white-tailed antelope ground squirrel, common raven, black-tailed jackrabbit
Palmdale 61	1	2	34.60255037	-118.1279293	05/03/2024 09:42	05/07/2024 16:40	5573	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, deer mouse, desert cottontail, white-tailed antelope ground squirrel
Palmdale 61	2	2	34.60471751	-118.1276096	05/03/2024 09:54	05/07/2024 16:45	4185	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, deer mouse, desert cottontail, kangaroo rat, white-tailed antelope ground squirrel
Palmdale 61	3	2	34.60374138	-118.1268767	05/03/2024 09:31	05/07/2024 16:35	7282	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, deer mouse, desert cottontail, kangaroo rat, white-tailed antelope ground squirrel, common raven, black-tailed jackrabbit, Great Basin whiptail
Palmdale 61	4	2	34.60522355	-118.1245628	05/03/2024 08:54	05/07/2024 16:17	5940	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, desert cottontail, kangaroo rat, white-tailed antelope ground squirrel, black-tailed jackrabbit, mourning dove
Palmdale 61	5	2	34.6027663	-118.1250532	05/03/2024 09:08	05/07/2024 16:01	6844	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, deer mouse, white-tailed antelope ground squirrel, common raven, black-tailed jackrabbit
Palmdale 61	1	3	34.60255037	-118.1279293	06/10/2024 19:21	06/14/2024 20:16	9482	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, deer mouse, desert cottontail, kangaroo rat, white-tailed antelope ground squirrel, Say's phoebe, black-tailed jackrabbit
Palmdale 61	2	3	34.60471751	-118.1276096	06/10/2024 19:01	06/14/2024 19:11	7790	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, deer mouse, desert cottontail, kangaroo rat, white-tailed antelope ground squirrel
Palmdale 61	3	3	34.60374138	-118.1268767	06/10/2024 19:08	06/14/2024 19:01	7283	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, deer mouse, desert cottontail, kangaroo rat, white-tailed antelope ground squirrel, common raven, black-tailed jackrabbit, cactus wren
Palmdale 61	4	3	34.60522355	-118.1245628	06/10/2024 18:50	06/14/2024 18:55	10112	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, desert cottontail, kangaroo rat, white-tailed antelope ground squirrel, black-tailed jackrabbit
Palmdale 61	5	3	34.6027663	-118.1250532	06/10/2024 19:51	06/14/2024 19:43	3668	0	0	0	0	0	0	0	N/A	N/A	0	California ground squirrel, deer mouse, desert cottontail, kangaroo rat, white-tailed antelope ground squirrel, black-tailed jackrabbit, red racer
						Total	101,158											

Attachment B

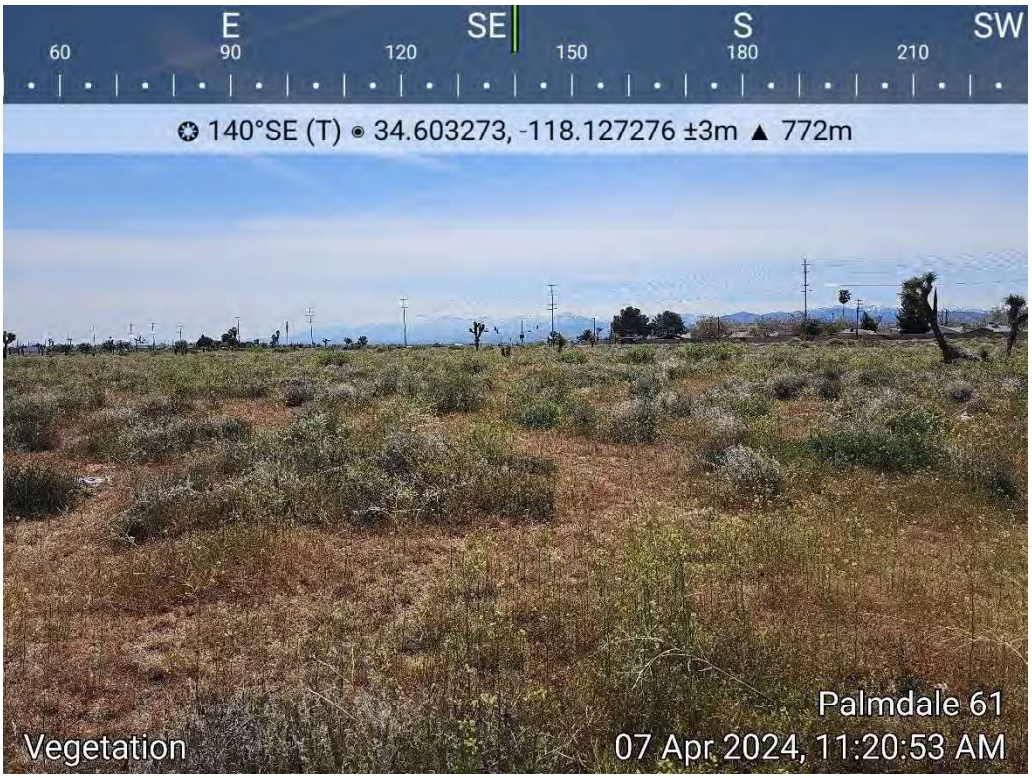
Common name	Scientific name	Special Status
Plants-Shrubs and Trees		
white bursage	*Ambrosia dumosa*	
cheesebush	*Ambrosia salsola*	
Nevada jointfir	*Ephedra nevadensis*	
Cooper's goldenbush	*Ericameria cooperi*	
rubber rabbitbrush	*Ericameria nauseosa*	
California buckwheat	*Eriogonum fasciculatum*	
spiny hopsage	*Grayia spinosa*	
winterfat	*Krascheninnikovia lanata*	
creosote	*Larrea tridentata*	
Anderson's thornbush	*Lycium andersonii*	
Cooper's boxthorn	*Lycium cooperi*	
bladdersage	*Scutellaria mexicana*	
cottonthorn	*Tetradymia stenolepis*	
Joshua tree	*Yucca brevifolia*	
Plants-Grasses and Forbs		
desert needlegrass	*Achnatherum speciosum*	
fiddleneck	*Amsinckia tessellata*	
fox tail brome	*Bromus madritensis*	
cheatgrass	*Bromus tectorum*	
desert mariposa lily	*Calochortus kennedyi*	
cryptantha	*Cryptantha sp.*	
red-stemmed filaree	*Erodium cicutarium*	
California poppy	*Eschscholzia californica*	
short-podded mustard	*Hirschfeldia incana*	
goldfields	*Lasthenia californica*	
Parry's linanthus	*Linanthus parryae*	
common phacelia	*Phacelia distans*	
Mediterranean grass	*Schismus barbatus*	
London rocket	*Sisymbrium irio*	
Birds		
Anna's hummingbird	*Calypte anna*	
cactus wren	*Campylorhynchus brunneicapillus*	
turkey vulture	*Cathartes aura*	
common raven	*Corvus corax*	
ladder-backed woodpecker	*Dryobates scalaris*	
house finch	*Haemorhous mexicanus*	
hooded oriole	*Icterus cucullatus*	
northern mockingbird	*Mimus polyglottos*	
house sparrow	*Passer domesticus*	
Say's phoebe	*Sayornis saya*	
Lesser goldfinch	*Spinus psaltria*	

Common name	Scientific name	Special Status
Brewer's sparrow	*Spizella breweri*	
western meadowlark	*Sturnella neglecta*	
Violet-green swallow	*Tachycineta thalassina*	
Mourning dove	*Zenaida macroura*	
Mammals		
white-tailed antelope ground squirrel	*Ammospermophilus leucurus*	
kangaroo rat	*Dipodomys sp.*	
black-tailed jackrabbit	*Lepus californicus*	
California ground squirrel	*Otospermophilus beecheyi*	
deer mouse	*Peromyscus maniculatus*	
desert cottontail	*Sylvilagus audubonii*	
Reptiles		
Great Basin whiptail	*Aspidoscelis tigris*	
red racer	*Coluber flagellum piceus*	
gopher snake	*Pituophis catenifer*	
side-blotched lizard	*Uta stansburiana*	

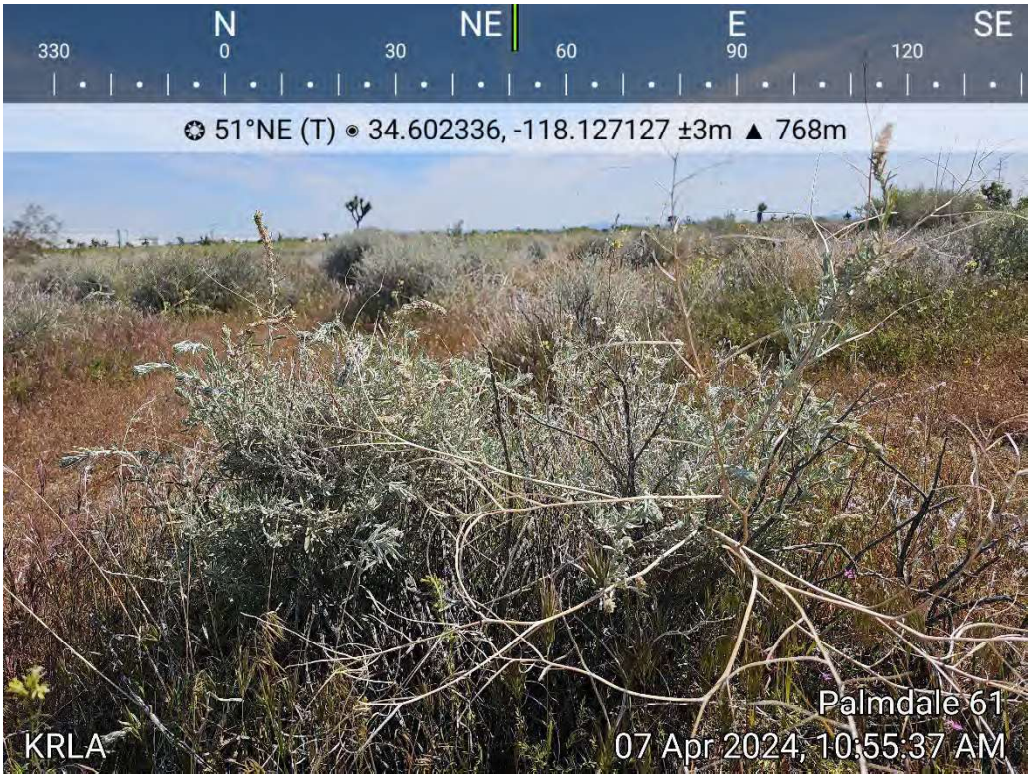
Attachment C



Photograph 1: Site overview, facing north.



Photograph 2: Site overview, facing southeast.



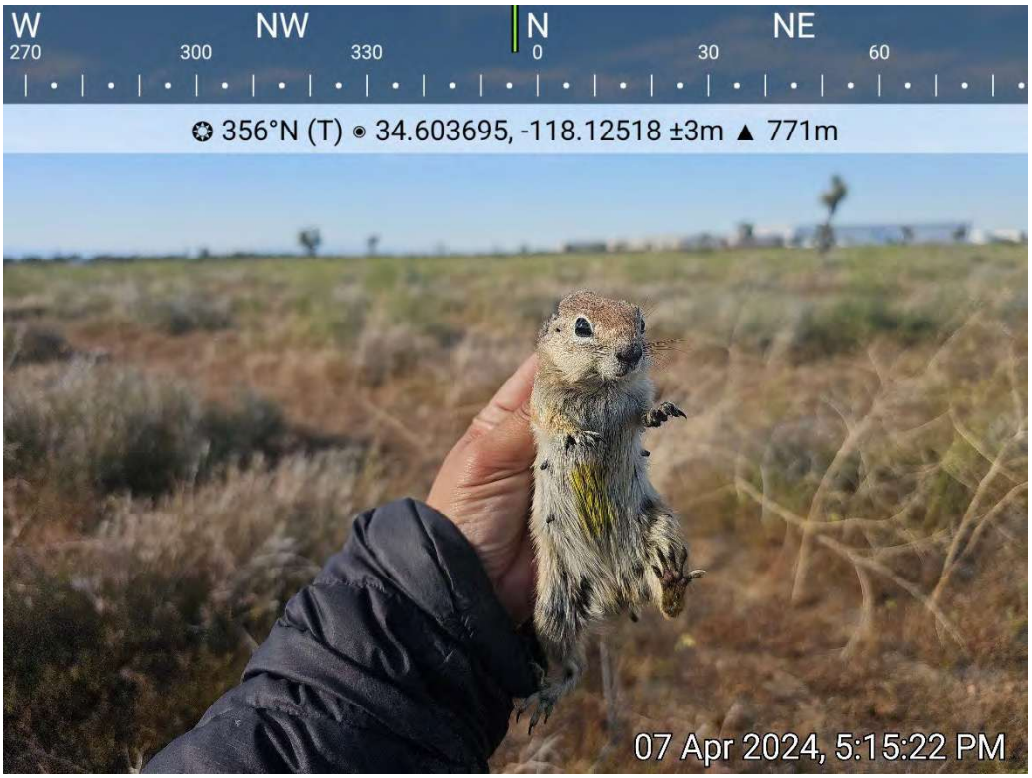
Photograph 3: Winterfat (*Krascheninnikovia lanata*), MGS food plant, facing northeast.



Photograph 4: Spiny hopsage (*Grayia spinosa*), MGS food plant, facing west.



Photograph 5: Representative camera trap station, facing northeast.



Photograph 6: Antelope ground squirrel (*Ammospermophilus leucurus*; AGS) captured at trap station, facing north.



Photograph 7: California ground squirrel (*Otospermophilus beecheyi*), captured in trap, facing west.



Photograph 8: Desert cottontail (*Sylvilagus audubonii)*captures at trap station, facing north.



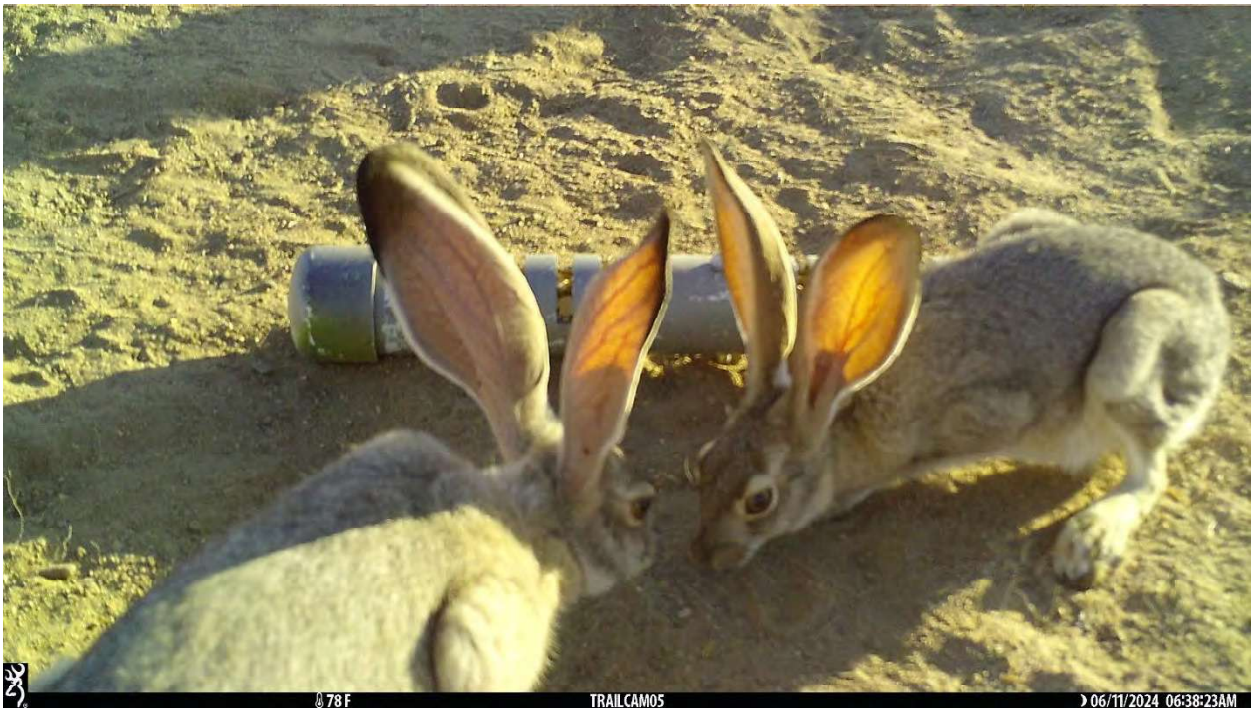
Photograph 9: Great Basin whiptail (*Aspidoscelis tigris*) captured at trap station, facing northwest.



Photograph 10: Antelope ground squirrels (*Ammospermophilus leucurus*) at camera trap station 2.



Photograph 11: California ground squirrels (*Otospermophilus beecheyi*), at camera trap station 5.



Photograph 12: Black-tailed jackrabbits (*Lepus californicus*), at camera trap station 5.

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Appendix B
Photo Exhibit

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Photo 1. Representative photo of the Joshua tree woodland on site.



Photo 2. Representative photo of Nevada joint fir-Anderson's boxthorn-spiny hop sage scrub on site.

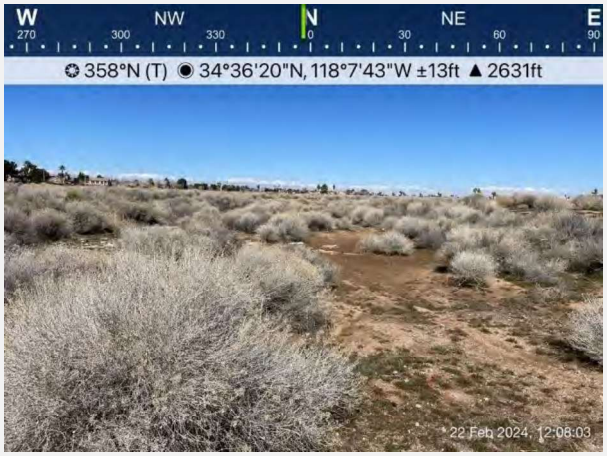


Photo 3. Representative photo of rubber rabbitbrush scrub on site.



Photo 4. Representative photo of a more recently disturbed area within the Project Boundaries.

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Appendix C
Plant and Wildlife Compendia

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* signifies introduced (non-native) species

PLANTS

EUDICOTS

ASTERACEAE—SUNFLOWER FAMILY
Ambrosia dumosa—white bursage
Ericameria nauseosa—rubber rabbitbrush
Lasthenia gracilis—needle goldfields
Tetradymia axillaris—longspine horsebrush

BORAGINACEAE—BORAGE FAMILY
Amsinckia tessellata—bristly fiddleneck

BRASSICACEAE—MUSTARD FAMILY
Sisymbrium altissimum—tall tumblemustard*

CHENOPODIACEAE—GOOSEFOOT FAMILY
Grayia spinosa—spiny hop sage
Krascheninnikovia lanata—winterfatland

GERANIACEAE—GERANIUM FAMILY
Erodium cicutarium—redstem stork's bill*

SOLANACEAE—NIGHTSHADE FAMILY
Lycium andersonii—Anderson’s boxthorn

ZYGOPHYLLACEAE—CALTROP FAMILY
Larrea tridentata—creosote bush

GYMNOSPERMS AND GNETOPHYTES

EPHEDRACEAE—EPHEDRA FAMILY
Ephedra nevadensis—Nevada joint fir

MONOCOTS

AGAVACEAE—AGAVE FAMILY
Yucca brevifolia—Joshua tree

POACEAE—GRASS FAMILY
Bromus madritensis ssp. *rubens*—red brome*
Schismus barbatus—common Mediterranean grass*

WILDLIFE

INVERTEBRATE

REPTILE

TEIIDAE—WHIPTAIL LIZARDS

Aspidoscelis tigris—tiger whiptail

BIRD

ICTERIDAE—BLACKBIRDS

Sturnella neglecta—western meadowlark

FRINGILLIDAE—FRINGILLINE & CARDUELINE FINCHES & ALLIES

Haemorhous mexicanus—house finch

TYRANNIDAE—TYRANT FLYCATCHERS

Sayornis saya—Say's phoebe

ACCIPITRIDAE—HAWKS, KITES, EAGLES, & ALLIES

Buteo jamaicensis—red-tailed hawk

TROCHILIDAE—HUMMINGBIRDS

Calypte anna—Anna's hummingbird

CORVIDAE—CROWS & JAYS

Corvus corax—common raven

MIMIDAE—MOCKINGBIRDS & THRASHERS

Mimus polyglottos—northern mockingbird

ODONTOPHORIDAE—NEW WORLD QUAIL

Callipepla californica—California quail

COLUMBIDAE—PIGEONS & DOVES

*Streptopelia decaocto—Eurasian collared-dove**

Zenaida macroura—mourning dove

STURNIDAE—STARLINGS

Sturnus vulgaris—European starling*

ANATIDAE—DUCKS, GEESE, & SWANS

TROGLODYTIDAE—WRENS

Campylorhynchus brunneicapillus—cactus wren

PASSERELLIDAE—NEW WORLD SPARROWS

Zonotrichia leucophrys—white-crowned sparrow

MAMMAL

LEPORIDAE—HARES & RABBITS

Lepus californicus—black-tailed jackrabbit

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Appendix D

Assessment of Special-Status Plant Species Potential to Occur in the Study Area

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Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Acanthoscyphus parishii var. *abramsii*	Abrams' oxytheca	None/None/1B.2	Chaparral (sandy, shale)/annual herb/June–Aug/3750–6750	Not expected to occur. Suitable habitat for the species is not present in the study area.
Acanthoscyphus parishii var. *parishii*	Parish's oxytheca	None/None/4.2	Chaparral, Lower montane coniferous forest; Gravelly (sometimes), Sandy (sometimes)/annual herb/June–Sep/4,005–8,530	Not expected to occur. Suitable habitat for the species is not present in the study area.
Androsace elongata ssp. *acuta*	California androsace	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Meadows and seeps, Pinyon and juniper woodland, Valley and foothill grassland/annual herb/Mar–June/490–4280	Not expected to occur. Suitable habitat for the species is not present in the study area.
Arctostaphylos glandulosa ssp. *gabrielensis*	San Gabriel manzanita	None/None/1B.2	Chaparral (rocky)/perennial evergreen shrub/Mar/1950–4920	Not expected to occur. Suitable habitat for the species is not present in the study area.
Arctostaphylos parryana ssp. *tumescens*	interior manzanita	None/None/4.3	Chaparral (montane), Cismontane woodland/perennial evergreen shrub/Feb–Apr/6890–7580	Not expected to occur. Suitable habitat for the species is not present in the study area.
Astragalus hornii var. *hornii*	Horn's milk-vetch	None/None/1B.1	Meadows and seeps, Playas; Alkaline, Lake Margins/annual herb/May–Oct/195–2,790	Not expected to occur. Suitable habitat for the species is not present in the study area.
Astragalus preussii var. *laxiflorus*	Lancaster milk-vetch	None/None/1B.1	Chenopod scrub/perennial herb/Mar–May/2295–2295	Not expected to occur. Suitable habitat for the species is not present in the study area.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Calochortus catalinae	Catalina mariposa lily	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland/perennial bulbiferous herb/(Feb)Mar–June/50–2295	Not expected to occur. Suitable habitat for the species is not present in the study area.
Calochortus clavatus var. *avius*	Pleasant Valley mariposa-lily	None/None/1B.2	Lower montane coniferous forest (Josephine silt loam, volcanic)/perennial bulbiferous herb/May–July/1000–5905	Not expected to occur. Suitable habitat for the species is not present in the study area.
Calochortus clavatus var. *clavatus*	club-haired mariposa lily	None/None/4.3	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland; Clay, Rocky, Serpentinite (usually)/perennial bulbiferous herb/(Mar)May–June/100–4,265	Not expected to occur. Suitable habitat for the species is not present in the study area.
Calochortus clavatus var. *gracilis*	slender mariposa-lily	None/None/1B.2	Chaparral, Coastal scrub, Valley and foothill grassland/perennial bulbiferous herb/Mar–June(Nov)/1050–3280	Not expected to occur. Suitable habitat for the species is not present in the study area.
Calochortus fimbriatus	late-flowered mariposa-lily	None/None/1B.3	Chaparral, Cismontane woodland, Riparian woodland; Serpentinite (sometimes)/perennial bulbiferous herb/June–Aug/900–6,250	Not expected to occur. Suitable habitat for the species is not present in the study area.
Calochortus palmeri var. *palmeri*	Palmer's mariposa-lily	None/None/1B.2	Chaparral, Lower montane coniferous forest, Meadows and seeps; Mesic/perennial bulbiferous herb/Apr–July/2,330–7,840	Not expected to occur. Suitable habitat for the species is not present in the study area.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Calochortus plummerae	Plummer's mariposa-lily	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland; Granitic, Rocky/perennial bulbiferous herb/May–July/330–5,580	Not expected to occur. Suitable habitat for the species is not present in the study area.
Calochortus striatus	alkali mariposa-lily	None/None/1B.2	Chaparral, Chenopod scrub, Meadows and seeps, Mojavean desert scrub; Alkaline, Mesic/perennial bulbiferous herb/Apr–June/230–5,235	Not expected to occur. Suitable alkaline and mesic habitat is not present.
Calystegia peirsonii	Peirson's morning-glory	None/None/4.2	Chaparral, Chenopod scrub, Cismontane woodland, Coastal scrub, Lower montane coniferous forest, Valley and foothill grassland/perennial rhizomatous herb/Apr–June/100–4920	Not expected to occur. Suitable habitat for the species is not present in the study area.
Canbya candida	white pygmy-poppy	None/None/4.2	Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland; Granitic, Gravelly, Sandy/annual herb/Mar–June/1,970–4,790	Low potential to occur. Suitable habitat for this species is present in the study area; however, there are no records of the species within 10 mile that are less than 50 years old (CDFW 2024, CalFlora 2024). The species was not observed during the rare plant survey.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Castilleja gleasoni	Mt. Gleason paintbrush	None/SR/1B.2	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland; Granitic/perennial herb (hemiparasitic)/May–June(Sep)/3,805–7,120	Not expected to occur. Suitable habitat for the species is not present in the study area.
Castilleja plagiotoma	Mojave paintbrush	None/None/4.3	Great Basin scrub (alluvial), Joshua tree "woodland", Lower montane coniferous forest, Pinyon and juniper woodland/perennial herb (hemiparasitic)/Apr–June/985–8205	Low potential to occur. Suitable Joshua tree woodland occurs within the study area; however, there are no records of the species within 5 mile that are less than 50 years old (CDFW 2024, CalFlora 2024). The species was not observed during the rare plant survey.
Chorizanthe parryi var. *parryi*	Parry's spineflower	None/None/1B.1	Chaparral, Cismontane woodland, Coastal scrub, Valley and foothill grassland; Openings, Rocky (sometimes), Sandy (sometimes)/annual herb/Apr–June/900–4,005	Not expected to occur. Suitable habitat for the species is not present in the study area.
Chorizanthe spinosa	Mojave spineflower	None/None/4.2	Chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, Playas; Alkaline (sometimes)/annual herb/Mar–July/20–4,265	Low potential to occur. Joshua tree woodland is present throughout the study area; however, the study area lacks alkaline conditions. The species was not observed during the rare plant survey.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Claytonia peirsonii ssp. *peirsonii*	Peirson's spring beauty	None/None/1B.2	Subalpine coniferous forest, Upper montane coniferous forest; Granitic, Metamorphic, Scree, Talus/perennial herb/(Mar)May–June/4,955–9,005	Not expected to occur. Suitable habitat for the species is not present in the study area.
Clinopodium mimuloides	monkey-flower savory	None/None/4.2	Chaparral, North Coast coniferous forest; Mesic, Streambanks/perennial herb/June–Oct/1,000–5,905	Not expected to occur. Suitable habitat for the species is not present in the study area.
Cryptantha clokeyi	Clokey's cryptantha	None/None/1B.2	Rocky to gravelly slopes, ridge crests, granite, rhyolite, or schist, desert woodland, chaparral /annual herb/Apr/2380–4480	Not expected to occur. Suitable habitat for the species is not present in the study area.
Delphinium umbraculorum	umbrella larkspur	None/None/1B.3	Chaparral, Cismontane woodland/perennial herb/Apr–June/1310–5250	Not expected to occur. Suitable habitat for the species is not present in the study area.
Diplacus johnstonii	Johnston's monkeyflower	None/None/4.3	Lower montane coniferous forest (disturbed areas, gravelly, roadsides, rocky, scree)/annual herb/May–Aug/3200–9580	Not expected to occur. Suitable habitat for the species is not present in the study area.
Dodecahema leptoceras	slender-horned spineflower	FE/SE/1B.1	Chaparral, Cismontane woodland, Coastal scrub (alluvial fans); Sandy/annual herb/Apr–June/655–2,495	Not expected to occur. Suitable habitat for the species is not present in the study area.
Eriastrum rosamondense	Rosamond eriastrum	None/None/1B.1	Chenopod scrub (openings), Vernal pools (edges); Alkaline, Sandy (often)/annual herb/Apr–May(June–July)/2,295–3,855	Not expected to occur. Suitable habitat for the species is not present in the study area.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Erigeron breweri var. *jacinteus*	San Jacinto Mountains daisy	None/None/4.3	Subalpine coniferous forest, Upper montane coniferous forest; Rocky/perennial rhizomatous herb/June–Sep/8,860–9,515	Not expected to occur. Suitable habitat for the species is not present in the study area.
Eriogonum umbellatum var. *minus*	alpine sulfur-flowered buckwheat	None/None/4.3	Subalpine coniferous forest, Upper montane coniferous forest; Gravelly/perennial herb/June–Sep/5,905–10,065	Not expected to occur. Suitable habitat for the species is not present in the study area.
Frasera neglecta	pine green-gentian	None/None/4.3	Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest/perennial herb/May–July/4595–8205	Not expected to occur. Suitable habitat for the species is not present in the study area.
Galium jepsonii	Jepson's bedstraw	None/None/4.3	Lower montane coniferous forest, Upper montane coniferous forest; Granitic, Gravelly (sometimes), Rocky (sometimes)/perennial rhizomatous herb/July–Aug/5,055–8,205	Not expected to occur. Suitable habitat for the species is not present in the study area.
Galium johnstonii	Johnston's bedstraw	None/None/4.3	Chaparral, Lower montane coniferous forest, Pinyon and juniper woodland, Riparian woodland/perennial herb/June–July/4005–7545	Not expected to occur. Suitable habitat for the species is not present in the study area.
Gilia latiflora ssp. *cuyamensis*	Cuyama gilia	None/None/4.3	Pinyon and juniper woodland (sandy)/annual herb/Apr–June/1950–6560	Not expected to occur. Suitable habitat for the species is not present in the study area.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Goodmania luteola	golden goodmania	None/None/4.2	Meadows and seeps, Mojavean desert scrub, Playas, Valley and foothill grassland; Alkaline (sometimes), Clay (sometimes)/annual herb/Apr–Aug/65–7,220	Not expected to occur. The study area lacks the alkaline and/or clay soils to support this species.
Heuchera caespitosa	urn-flowered alumroot	None/None/4.3	Cismontane woodland, Lower montane coniferous forest, Riparian forest (montane), Upper montane coniferous forest; Rocky/perennial rhizomatous herb/May–Aug/3,790–8,695	Not expected to occur. Suitable habitat for the species is not present in the study area.
Hulsea vestita ssp. *gabrielensis*	San Gabriel Mountains sunflower	None/None/4.3	Lower montane coniferous forest, Upper montane coniferous forest; Rocky/perennial herb/May–July/4,920–8,205	Not expected to occur. Suitable habitat for the species is not present in the study area.
Juglans californica	Southern California black walnut	None/None/4.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland/perennial deciduous tree/Mar–Aug/165–2955	Not expected to occur. Suitable habitat for the species is not present in the study area.
Lepechinia fragrans	fragrant pitcher sage	None/None/4.2	Chaparral/perennial shrub/Mar–Oct/65–4300	Not expected to occur. Suitable habitat for the species is not present in the study area.
Lepechinia rossii	Ross' pitcher sage	None/None/1B.2	Chaparral/perennial shrub/May–Sep/1000–2590	Not expected to occur. Suitable habitat for the species is not present in the study area.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Lilium parryi	lemon lily	None/None/1B.2	Lower montane coniferous forest, Meadows and seeps, Riparian forest, Upper montane coniferous forest; Mesic/perennial bulbiferous herb/July–Aug/4,005–9,005	Not expected to occur. Suitable habitat for the species is not present in the study area.
Linanthus concinnus	San Gabriel linanthus	None/None/1B.2	Chaparral, Lower montane coniferous forest, Upper montane coniferous forest; Openings, Rocky/annual herb/Apr–July/4,985–9,185	Not expected to occur. Suitable habitat for the species is not present in the study area.
Loeflingia squarrosa var. *artemisiarum*	sagebrush loeflingia	None/None/2B.2	Desert dunes, Great Basin scrub, Sonoran desert scrub; Sandy/annual herb/Apr–May/2,295–5,300	Not expected to occur. Suitable habitat for the species is not present in the study area.
Lupinus albifrons var. *johnstonii*	interior bush lupine	None/None/4.3	Chaparral, Lower montane coniferous forest; Decomposed granitic/perennial shrub/May–July/4,920–8,205	Not expected to occur. Suitable habitat for the species is not present in the study area.
Lupinus peirsonii	Peirson's lupine	None/None/1B.3	Joshua tree "woodland", Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest; Gravelly, Rocky/perennial herb/Apr–June/3,280–8,205	Not expected to occur. The site is outside of the species' known elevation range.
Lycium torreyi	Torrey's box-thorn	None/None/4.2	Mojavean desert scrub, Sonoran desert scrub; Rocky, Sandy, Streambanks, Washes/perennial shrub/(Jan–Feb)Mar–June(Sep–Nov)/-,165–4,005	Not expected to occur. This conspicuous shrub was not observed during surveys.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Monardella australis ssp. *gabrielensis*	San Gabriel Mountains monardella	None/None/1B.2	Broadleafed upland forest, Chaparral (montane), Lower montane coniferous forest; Granitic, Openings/shrub/July–Sep/5,250–7,220	Not expected to occur. Suitable habitat for the species is not present in the study area.
Monardella exilis	Mojave monardella	None/None/4.2	Chenopod scrub, Desert dunes, Great Basin scrub, Joshua tree "woodland", Lower montane coniferous forest, Mojavean desert scrub, Pinyon and juniper woodland; Sandy/annual herb/Apr–Sep/1,970–6,725	Not expected to occur. The species was initial assessed as having a moderate potential to occur. However, the rare plant surveys, conducted after a positive identification of the species in bloom at local reference populations, were negative for the species.
Monardella linoides ssp. *oblonga*	Tehachapi monardella	None/None/1B.3	Lower montane coniferous forest, Pinyon and juniper woodland, Upper montane coniferous forest/perennial rhizomatous herb/(May)June–Aug/2955–8105	Not expected to occur. Suitable habitat for the species is not present in the study area.
Monardella viridis	green monardella	None/None/4.3	Broadleafed upland forest, Chaparral, Cismontane woodland/perennial rhizomatous herb/June–Sep/330–3315	Not expected to occur. Suitable habitat for the species is not present in the study area.
Muilla coronata	crowned muilla	None/None/4.2	Chenopod scrub, Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland/perennial bulbiferous herb/Mar–Apr(May)/2200–6430	Not expected to occur. The species was initial assessed as having a moderate potential to occur. However, the rare plant surveys, conducted after a positive identification of the species in bloom at local reference populations, were negative for the species.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Nemacladus secundiflorus var. *robbinsii*	Robbins' nemacladus	None/None/1B.2	Chaparral, Valley and foothill grassland; Openings/annual herb/Apr–June/1,150–5,580	Not expected to occur. Suitable habitat for the species is not present in the study area.
Opuntia basilaris var. *brachyclada*	short-joint beavertail	None/None/1B.2	Chaparral, Joshua tree "woodland", Mojavean desert scrub, Pinyon and juniper woodland/perennial stem/Apr–June(Aug)/1395–5905	Not expected to occur. There is suitable Joshua tree woodland and desert scrub habitat, but records for this species are not know from the desert floor in the study area region. Additionally, the species was not observed during the rare plant survey.
Oreonana vestita	woolly mountain-parsley	None/None/1B.3	Lower montane coniferous forest, Subalpine coniferous forest, Upper montane coniferous forest; Gravelly (sometimes), Talus (sometimes)/perennial herb/Mar–Sep/5,300–11,485	Not expected to occur. Suitable habitat for the species is not present in the study area.
Packera ionophylla	Tehachapi ragwort	None/None/4.3	Lower montane coniferous forest, Upper montane coniferous forest; Granitic, Rocky/perennial herb/June–July/4,920–8,860	Not expected to occur. Suitable habitat for the species is not present in the study area.
Perideridia pringlei	adobe yampah	None/None/4.3	Chaparral, Cismontane woodland, Coastal scrub, Pinyon and juniper woodland; Clay (often), Serpentinite/perennial herb/Apr–June(July)/985–5,905	Not expected to occur. Suitable habitat for the species is not present in the study area.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Phacelia mohavensis	Mojave phacelia	None/None/4.3	Cismontane woodland, Lower montane coniferous forest, Meadows and seeps, Pinyon and juniper woodland; Gravelly (sometimes), Sandy (sometimes)/annual herb/Apr–Aug/4,595–8,205	Not expected to occur. Suitable habitat for the species is not present in the study area.
Pseudognaphalium leucocephalum	white rabbit-tobacco	None/None/2B.2	Chaparral, Cismontane woodland, Coastal scrub, Riparian woodland; Gravelly, Sandy/perennial herb/(July)Aug–Nov(Dec)/0–6,890	Not expected to occur. Suitable habitat for the species is not present in the study area.
Quercus durata var. *gabrielensis*	San Gabriel oak	None/None/4.2	Chaparral, Cismontane woodland/perennial evergreen shrub/Apr–May/1475–3280	Not expected to occur. Suitable habitat for the species is not present in the study area.
Selaginella asprella	bluish spike-moss	None/None/4.3	Cismontane woodland, Lower montane coniferous forest, Pinyon and juniper woodland, Subalpine coniferous forest, Upper montane coniferous forest; Granitic, Rocky/perennial rhizomatous herb/July/5,250–8,860	Not expected to occur. Suitable habitat for the species is not present in the study area.
Sidalcea neomexicana	salt spring checkerbloom	None/None/2B.2	Chaparral, Coastal scrub, Lower montane coniferous forest, Mojavean desert scrub, Playas; Alkaline, Mesic/perennial herb/Mar–June/50–5,020	Not expected to occur. Although there is suitable vegetation present, this species prefers wetter conditions and alkaline soils. No indication of these conditions was observed during the site visit.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Sidotheca caryophylloides	chickweed oxytheca	None/None/4.3	Lower montane coniferous forest (sandy)/annual herb/July–Sep(Oct)/3655–8530	Not expected to occur. The site is outside of the species' known elevation range and suitable habitat for the species is not present in the study area.
Stylocline masonii	Mason's neststraw	None/None/1B.1	Chenopod scrub, Pinyon and juniper woodland; Sandy/annual herb/Mar–May/330–3,935	Not expected to occur. Suitable habitat for the species is not present in the study area.
Symphyotrichum greatae	Greata's aster	None/None/1B.3	Broadleafed upland forest, Chaparral, Cismontane woodland, Lower montane coniferous forest, Riparian woodland; Mesic/perennial rhizomatous herb/June–Oct/985–6,595	Not expected to occur. Suitable habitat for the species is not present in the study area.
Syntrichopappus lemmonii	Lemmon's syntrichopappus	None/None/4.3	Chaparral, Joshua tree "woodland", Pinyon and juniper woodland; Gravelly (sometimes), Sandy (sometimes)/annual herb/Apr–May(June)/1,640–6,005	Low potential to occur. Suitable habitat is present for this species to occur; however, the closest record of this species is from 1929 (Calflora 2024). The species was not observed during the rare plant survey.
Thysanocarpus rigidus	rigid fringepod	None/None/1B.2	Pinyon and juniper woodland; Dry, Rocky, Slopes/annual herb/Feb–May/1,970–7,220	Not expected to occur. Suitable habitat for the species is not present in the study area.

Scientific Name	Common Name	Status (Federal/State/CRPR)	Primary Habitat Associations/ Life Form/ Blooming Period/ Elevation Range (feet)	Potential to Occur
Yucca brevifolia	western Joshua tree	None/SC/CBR	Great Basin grassland, Great Basin scrub, Joshua tree woodland, Mojavean desert scrub, Pinyon and juniper woodland, Sonoran desert scrub, Valley and foothill grassland/perennial leaf succulent/Apr–May/1312–6562	Present. A Joshua tree woodland is found throughout the majority of the site.

Notes:

Status Legend:

Federal Designations

FE Federally listed endangered
FT Federally listed as threatened

State Designations

SC State candidate
SE State listed as endangered
SR State Rare

California Rare Plant Ranking (CRPR)

1B Plants rare, threatened, or endangered in California and elsewhere
2B Plants rare, threatened, or endangered in California but more common elsewhere
3: Review List: Plants about which more information is needed
4: Watch List: Plants of limited distribution
.1 Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
.2 Fairly endangered in California (20% to 80% of occurrences threatened)
.3 Not very endangered in California (less than 20% of occurrences threatened or no current threats known)
CBR Considered but rejected

References

Calflora. 2024. The Calflora Database: Information on California Plants for Education, Research and Conservation [web application]. Berkeley, California. Accessed February 2024. https://www.calflora.org/.

CDFW (California Department of Fish and Wildlife). 2024. RareFind, Version 5.2.14. California Natural Diversity Database (CNDDB). Accessed February 2024. https://map.dfg.ca.gov/rarefind/view/RareFind.aspx.

CNPS (California Native Plant Society). 2024. Inventory of Rare and Endangered Plants. Online ed. Version 9-01 1.0. Sacramento, California: CNPS. Accessed February 2024. http://www.rareplants.cnps.org.

iNaturalist. 2024. iNaturalist: A community for naturalists [web application]. A joint initiative of the California Academy of Sciences and the National Geographic Society. Accessed February 2024. https://www.inaturalist.org/.

Jepson Flora Project. 2024. Jepson Interchange List of Currently Accepted Names of Native and Naturalized Plants of California. Berkeley, California: University of California. Accessed February 2024. http://ucjeps.berkeley.edu/interchange/.

State of California. 2022. *Report To The Fish And Game Commission Status Review of Western Joshua Tree* (*Yucca brevifolia*). Natural Resources Agency. Department of Fish and Wildlife.

Appendix E

Western Joshua Tree Conservation Act
Incidental Take Permit Application Package

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WESTERN JOSHUA TREE CONSERVATION ACT INCIDENTAL TAKE PERMIT APPLICATION

Complete EACH field, unless otherwise indicated, following the instructions and submit ALL requested enclosures and attachments to the CDFW regional office that serves the area where the project will occur. Attach additional pages to application, if necessary.

1. APPLICANT PROPOSING PROJECT

Name	Bo Prock
Business/Agency	Pacific Industrial
Mailing Address	6272 East Pacific Coast Highway, Suite E, Long Beach, California 90803
Phone Number	310.903.2946
Email	bop@pac-industrial.com

2. CONTACT PERSON *(Complete only if different from applicant)*

Name	Megan Enright
Business/Agency	Dudek
Mailing Address	605 Third Street, Encinitas, California 92024
Phone Number	760.420.7833
Email	menright@dudek.com

While an applicant is legally responsible for complying with Fish and Game Code section 1927 et seq., an applicant may designate and authorize an agent (e.g., consultant, attorney, or other individual) to act as a Designated Representative. The Designated Representative is authorized to sign the application and any agreement on behalf of the Applicant.

Do you authorize the Contact Person above to represent you as your Authorized Designated Representative?

☒Yes, I authorize. ☐No, I do not authorize.

3. PROJECT LOCATION

Project Name	Pacific Palmdale Center
Address or description of project location (*Attach a map that marks the location of the project with a reference to the nearest city or town and provide driving directions from a major road or highway.*)	The project site is in the City of Palmdale, within northern Los Angeles County, California (Figure 1, Regional Vicinity; all figures are presented in Attachment A). The project site is in Sections 14 and 15 of Township 6 North, Range 12 West on the Ritter Ridge and Palmdale U.S. Geological Survey 7.5-minute quadrangle map (Figures 1 and 2). The project is located on the north side of West Rancho Vista Boulevard and west side of Sierra Highway and includes the following Assessor's Parcel Numbers: 3006-27-001, 3006-27-002, 3006-27-003, 3006-27-004, and 3006-27-005 (Figure 2, Project Site).
County	Los Angeles
Assessor's Parcel Number(s)	3006-27-001, 3006-27-002, 3006-27-003, 3006-27-004, and 3006-27-005
Latitude	34.603619
Longitude	-118.125808
Project Acreage	61.3 acres

4. PROJECT DESCRIPTION

The project would involve the construction and operation of industrial/warehouse space on approximately 67 gross acres (56 net) of undeveloped land on the northwest corner of Sierra Highway and West Rancho Vista Boulevard. The proposed building would be 1,000,000 square feet (10,000 square feet of office and 990,000 square feet of warehouse space). There would be 582 total parking spaces, including employee and tractor/trailer spaces. Landscaping would be a minimum of 10% of the site coverage, including 10-foot landscaped setbacks from the street. A 140,000-square-foot detention basin would address on-site stormwater requirements.

5. WJT CENSUS

Provide information about the person conducting the WJT census. Attach the completed census as a separate file. Refer to the census instructions for details on how to conduct the census and report data and photographs.

Census Conducted By:

Name	Travis J. McGill
Business/Agency	ELMT
Job Title	Qualified Desert Botanist
Mailing Address	2201 North Grand Avenue, #10098 Santa Ana, California 92711
Phone Number	909.816.1646
Email	travismcgill@elmtconsulting.com
Survey123 Ticket Number (if applicable)	Not applicable

Figure 3 shows the site plan, Figure 4 shows the direct impacts, Figure 5 shows the western Joshua tree survey area, Figure 6 shows the existing western Joshua trees, and Figure 7 shows the impacts to western Joshua trees. Attachment B is the western Joshua tree census matrix.

Census Taker Qualifications:

Travis J. McGill

Travis J. McGill has more than 16 years of biological consulting experience and is a qualified desert native plant specialist with more than 10 years of professional experience with relocation or restoration of native California desert vegetation.

Education

BS, 2006, Biology, University of California at San Diego

Certifications

Certificate, 2012, Field Ornithology, University of California at Riverside, University Extension
Certificate, 2012, Wetland Delineation, Wetland Training Institute
Certificate, 2014, Certified California Rapid Assessment Method (CRAM) Practitioner, Riverine and Depressional Wetlands
Certificate, 2014, GIS and Spatial Analyst, California State University at Fullerton
Certificate, 2015, Botany, University of California at Riverside, University Extension

Additional Training

Introduction to Desert Tortoise Surveying, Monitoring, and Handling Techniques Workshop, Desert Tortoise Council, 2011

Megan Peukert and Rachael Lyons functioned as assistants, working directly under the supervision of Travis McGill, a qualified desert botanist.

6. MINIMIZATION MEASURES

Describe techniques that will be used to minimize take of WJT during the execution of the project. If relocation is proposed, describe the method of transplantation and receiving location for the relocated WJT. Attach maps and figures as needed. Relocation must be done pursuant to Section 1927.3(a)(4)(A) and CDFW protocols.

See Attachment C.

7. MITIGATION FEES

Fish and Game Code section 1927.3 requires the applicant to mitigate by paying the statutorily prescribed fees. View the interactive map that shows the area (in blue) which qualifies for reduced mitigation fees. The fee schedule can also be found in Fish and G. Code section 1927.3 subdivisions (d)-(e).

Anticipated WJT Tree Take

Provide the following WJT counts aggregated by size class for the appropriate area where the trees are located.

Trees located in the area described in Fish and G. Code section 1927.3 (d) (reduced fee area)

WJT Tree Size Class	Count
5 m or greater in height	30[1]
1 m to less than 5 m in height	432[2]
Less than 1 m in height	99[3]

1. Of the 30 trees, 1 tree is indirectly impacted (i.e., within the 50-foot buffer from impacts).
2. Of the 432 trees, 16 trees are indirectly impacted (i.e., within the 50-foot buffer from impacts).
3. Of the 99 trees, 1 tree is indirectly impacted (i.e., within the 25-foot buffer from impacts).

Trees located in the area described in Fish and G. Code section 1927.3 (e) (standard fee area)

WJT Tree Size Class	Count
5 m or greater in height	Not applicable
1 m to less than 5 m in height	Not applicable
Less than 1 m in height	Not applicable

8. PERMITS

List any local, state, and federal permits required for the project and check the corresponding box(es). Enclose a copy of each permit that has been issued.

Permit Name	Applied	Issued
N/A	N/A	N/A
N/A	N/A	N/A

9. CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) COMPLIANCE

If the project described in this notification is not the "whole project" or action pursuant to CEQA, briefly describe the entire project (Cal. Code Regs., tit. 14 § 15378).

The project described in this notification is the whole project.

	Yes	No
Has a CEQA lead agency been determined?	X	

If yes, complete the following table, otherwise skip to section 11.

Lead Agency Information

CEQA Lead Agency	City of Palmdale
Contact Name	Brenda Magana and Megan Taggart
Contact Phone	661.267.5293
Contact Email	bmagana@CityofPalmdale.org

CEQA/NEPA Documents

Have the following documents been prepared or will be prepared?	Yes	No	Will be prepared
CEQA/NEPA final document			X
Notice of Exemption		X	
Initial Study			X
Negative Declaration		X	
THP/NTMP		X	

Mitigated Negative Declaration			X
Environmental Impact Report		X	
Notice of Determination			X
Mitigation, Monitoring and Reporting Plan			X

State Clearinghouse Number:	CEQA document has not been prepared.

	Yes	No
Has a CEQA filing fee been paid pursuant to Fish and Game Code section 711.4?		X

If No, briefly explain why:

When the Notice of Determination is filed, the CEQA filing fee will be paid pursuant to Fish and Game Code Section 711.4.

10. SITE INSPECTIONS

Check one:

	In the event CDFW determines that a site inspection is necessary, I hereby authorize a CDFW representative to enter the property where the project described in this application will take place at any reasonable time, and hereby certify that I am authorized to grant CDFW such entry.
X	I request CDFW to first contact the person listed below to schedule a date and time to enter the property where the project described in this notification will take place. I understand that this may delay CDFW's processing of the permit application. Contact Name: Bo Prock Phone Number or Email: bop@pac-industrial.com or 310.903.2946

11. SIGNATURE

I hereby certify that to the best of my knowledge the information in this application is true and correct and that I am authorized to sign this application as, or on behalf of, the applicant. I understand that if any information in this application is found to be untrue or incorrect, CDFW may suspend processing this application or suspend or revoke any draft or final Western Joshua Tree Conservation Act Incidental Take Permit issued pursuant to this application. I understand that if any information in this application is found to be untrue or incorrect and the project described in this application has already begun, I

and/or the applicant may be subject to civil or criminal prosecution. I understand that this application applies only to the project(s) described herein and that I and/or the applicant may be subject to civil or criminal prosecution for undertaking any project not described herein unless CDFW has issue a separate take authorization for that project in accordance with Fish and Game Code section 1927.3 or the California Endangered Species Act.

Megan S Enright	9/10/2024
Signature of Applicant or Authorized Representative	Date
Megan S. Enright	
Signatory Name	

Include the following attachments and enclosures, if applicable:

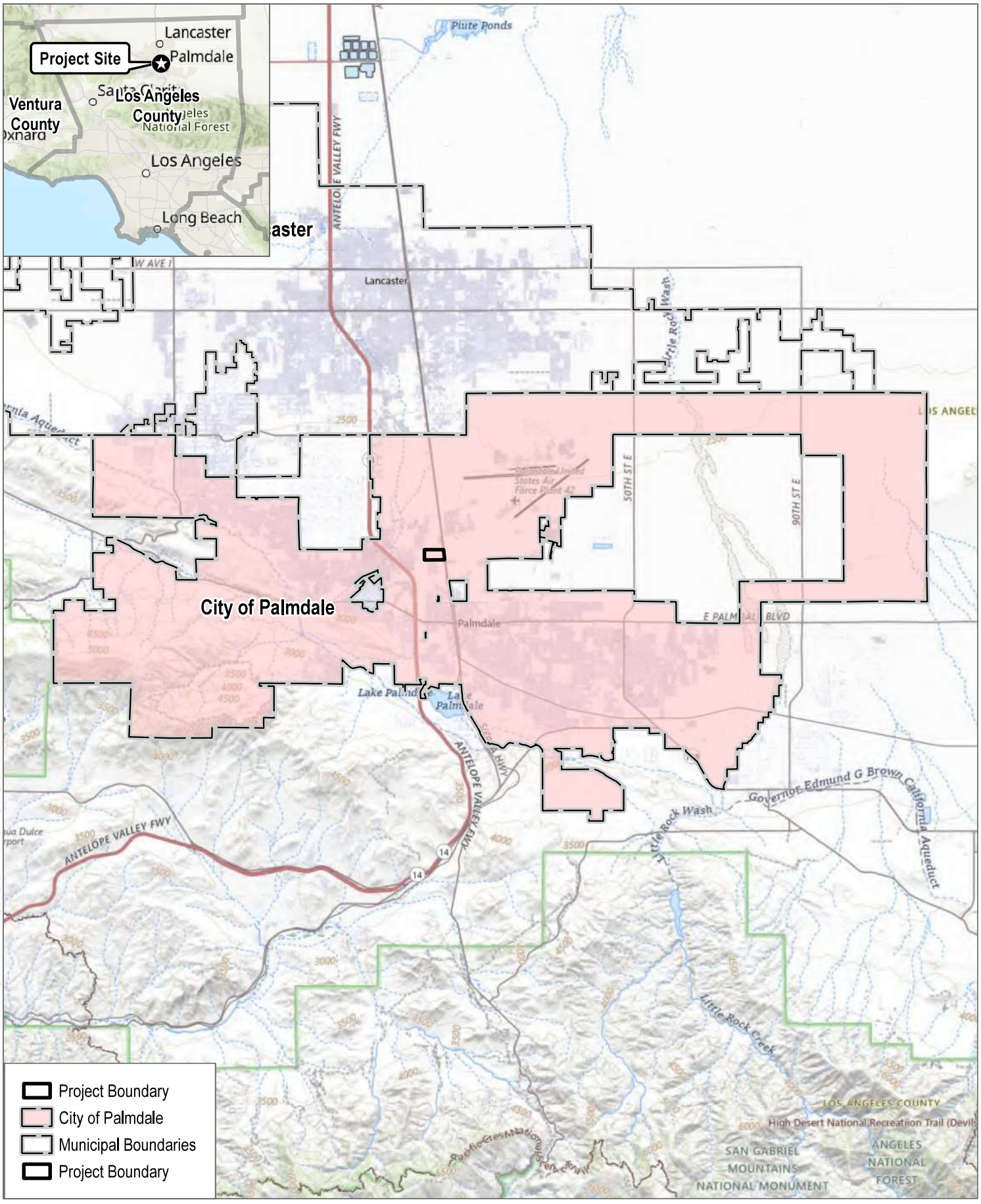
1. Any additional pages to application
2. Project location map
3. Project diagrams, drawings, design plans, construction specifications, and maps
4. Copy of each permit issued for the Project
5. WJT Census (data, photographs, and map)
6. WJT relocation maps and figures (if applicable)

Attachments

A Figures
B Census Matrix of Western Joshua Trees
C Project Mitigation Measures
D Photograph Log of Western Joshua Trees

Attachment A

Figures



SOURCE: USGS Topo Maps

DUDEK

0 1.25 2.5 Miles

FIGURE 1

Regional Vicinity

Palmdale Sierra Highway Project

Attachment B

Census Matrix of Western Joshua Trees

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
1	RAL	3833	DSCN7394	34.605412	-118.128022	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	NONE	YES	Indirect
2	RAL	3834	DSCN7396	34.60551	-118.127503	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	NONE	YES	Indirect
3	RAL	3838	DSCN7405	34.605493	-118.127001	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	NONE	YES	Indirect
4	RAL	3839	DSCN7407	34.605504	-118.126996	Size Class A (<1 meter)	Live	N	NONE	NONE	YES	None
5	RAL	3845	DSCN7421	34.605431	-118.126521	Size Class B (>1 meter and <5 meters)	Live	N	NONE	NONE	YES	Indirect
6	RAL	3846	DSCN7427	34.605425	-118.126498	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	NONE	YES	Indirect
7	RAL	3847	DSCN7429	34.605454	-118.126107	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	NONE	YES	Indirect
8	RAL	3848	DSCN7432	34.605544	-118.125334	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	NONE	YES	Indirect
9	RAL	3849	DSCN7434	34.605422	-118.124943	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Indirect
10	RAL	3856	DSCN7449	34.605458	-118.123622	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	NONE	YES	Indirect
11	RAL	3858	DSCN7454	34.605547	-118.122777	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	NONE	YES	Indirect
12	RAL	3859	DSCN7456	34.605562	-118.122756	Size Class B (>1 meter and <5 meters)	Live	N	NONE	NONE	YES	Indirect
13	RAL	3860	DSCN7458	34.605566	-118.122754	Size Class A (<1 meter)	Live	N	NONE	NONE	YES	None
14	RAL	3863	DSCN7465	34.60543	-118.122193	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
15	RAL	3864	DSCN7468	34.605417	-118.122199	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
16	RAL	3865	DSCN7470	34.605411	-118.122185	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
17	RAL	4068	DSCN8321	34.605164	-118.125311	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
18	RAL	4069	DSCN8323	34.60538	-118.124951	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
19	RAL	4070	DSCN8325, DSCN8327	34.60547	-118.124302	Size Class C (>5 meters)	Live	Y	NONE	NONE	YES	Indirect
20	RAL	4071	DSCN8329	34.605464	-118.124308	Size Class B (>1 meter and <5 meters)	Live	N	NONE	NONE	YES	Indirect
21	RAL	4072	DSCN8331	34.605478	-118.1243	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	NONE	YES	Indirect
22	RAL	4073	DSCN8333	34.605401	-118.124174	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
23	RAL	4074	DSCN8335	34.60543	-118.123637	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Indirect
24	RAL	4075	DSCN8337	34.605432	-118.123644	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Indirect
25	RAL	4076	DSCN8339	34.605435	-118.123662	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Indirect
26	RAL	4077	DSCN8343	34.605273	-118.123812	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
27	RAL	4078	DSCN8345	34.605305	-118.123651	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
28	RAL	4079	DSCN8348	34.605328	-118.123659	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
29	RAL	4080	DSCN8350	34.605324	-118.123637	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
30	RAL	4081	DSCN8355	34.605134	-118.123087	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
31	RAL	4082	DSCN8358-74	34.60515	-118.123099	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
32	RAL	4083	DSCN8376	34.605149	-118.123116	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
33	RAL	4084	DSCN8378	34.605129	-118.123069	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
34	RAL	4085	DSCN8380	34.60514	-118.123058	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
35	RAL	4086	DSCN8382	34.605133	-118.123061	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
36	RAL	4087	DSCN8385	34.605143	-118.123058	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
37	RAL	4088	DSCN8389	34.605164	-118.123072	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
38	RAL	4089	DSCN8391	34.605142	-118.123054	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
39	RAL	4090	DSCN8393	34.605047	-118.122869	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
40	RAL	4091	DSCN8396	34.605029	-118.122913	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
41	RAL	4092	DSCN8401	34.605034	-118.122899	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
42	RAL	4093	DSCN8409	34.605466	-118.122815	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	NONE	YES	Indirect
43	RAL	4094	DSCN8411	34.605273	-118.122694	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
44	RAL	4095	DSCN8413	34.605285	-118.122666	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
45	RAL	4096	DSCN8418	34.605285	-118.12269	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
46	RAL	4097	DSCN8421	34.605285	-118.122706	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
47	RAL	4098	DSCN8422	34.605276	-118.122679	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
48	RAL	4099	DSCN8427	34.602137	-118.124947	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
49	RAL	4100	DSCN8429, DSCN8430	34.602046	-118.124908	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
50	RAL	4101	DSCN8432	34.602054	-118.124893	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
51	RAL	4102	DSCN8434	34.60196	-118.124733	Size Class C (>5 meters)	Live	N	NONE	NONE	YES	Direct
52	RAL	4103	DSCN8436, DSCN8437	34.602431	-118.124648	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
53	RAL	4104	DSCN8440	34.602417	-118.124626	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
54	RAL	4105	DSCN8442-45	34.602462	-118.124685	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
55	RAL	4106	DSCN8447	34.602474	-118.124689	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
56	RAL	4107	DSCN8454, DSCN8455	34.60236	-118.124532	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
57	RAL	4108	DSCN8458	34.602334	-118.124537	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
58	RAL	4109	DSCN8460	34.602334	-118.124541	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
59	RAL	4110	DSCN8462	34.602323	-118.124289	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
60	RAL	4111	DSCN8465-67	34.602102	-118.124319	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
61	RAL	4112	DSCN8469	34.601948	-118.124334	Size Class C (>5 meters)	Live	Y	NONE	NONE	YES	Direct
62	RAL	4113	DSCN8471	34.602117	-118.123964	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
63	RAL	4114	DSCN8473	34.602079	-118.123983	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
64	RAL	4115	DSCN8475	34.602075	-118.123987	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
65	RAL	4116	DSCN8478	34.602111	-118.123743	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
66	RAL	4117	DSCN8480	34.602346	-118.123836	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
67	RAL	4118	DSCN8482	34.602264	-118.123647	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
68	RAL	4119	DSCN8485	34.602242	-118.123651	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
69	RAL	4120	DSCN8491, DSCN8492	34.602353	-118.123605	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
70	RAL	4121	DSCN8494	34.602415	-118.123334	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
71	RAL	4122	DSCN8496	34.602392	-118.123341	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
72	RAL	4123	DSCN8498-500	34.602153	-118.123316	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
73	RAL	4124	DSCN8505	34.602161	-118.123309	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
74	RAL	4125	DSCN8509, SDCN8510	34.602153	-118.123305	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
75	RAL	4126	DSCN8512	34.60216	-118.123311	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
76	RAL	4127	DSCN8515-19	34.602166	-118.123299	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
77	RAL	4128	DSCN8521	34.602237	-118.123236	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
78	RAL	4129	DSCN8523	34.602236	-118.123225	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
79	RAL	4130	DSCN8525	34.602235	-118.123218	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
80	RAL	4131	DSCN8527	34.602236	-118.123216	Size Class C (>5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
81	RAL	4132	DSCN8529	34.60237	-118.122924	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
82	RAL	4133	DSCN8531	34.602157	-118.122827	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
83	RAL	4134	DSCN8533, DSCN8534	34.602506	-118.12269	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
84	RAL	4135	DSCN8536	34.60248	-118.122655	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
85	RAL	4136	DSCN8540	34.602488	-118.122698	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
86	RAL	4137	DSCN8542	34.602482	-118.122692	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
87	RAL	4138	DSCN8545	34.60312	-118.125425	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
88	RAL	4139	DSCN8547	34.60322	-118.125388	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
89	RAL	4140	DSCN8549	34.603197	-118.125361	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
90	RAL	4141	DSCN8552	34.603348	-118.125422	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
91	RAL	4142	DSCN8554	34.603309	-118.125391	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
92	RAL	4143	DSCN8556	34.603291	-118.125265	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
93	RAL	4144	DSCN8558	34.603133	-118.125249	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
94	RAL	4145	DSCN8560	34.603305	-118.124957	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
95	RAL	4146	DSCN8562	34.603264	-118.124885	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
96	RAL	4149	DSCN8566	34.603306	-118.124759	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
97	RAL	4150	DSCN8568	34.603404	-118.124837	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
98	RAL	4151	DSCN8570	34.603414	-118.124668	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
99	RAL	4152	DSCN8573	34.603464	-118.12466	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
100	RAL	4153	DSCN8575, DSCN8576	34.603148	-118.124517	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
101	RAL	4154	DSCN8579	34.603179	-118.124533	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
102	RAL	4155	DSCN8581	34.60339	-118.12441	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
103	RAL	4156	DSCN8584	34.603372	-118.124405	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
104	RAL	4157	DSCN8589	34.603348	-118.124278	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
105	RAL	4158	DSCN8591	34.603497	-118.12418	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
106	RAL	4159	DSCN8594	34.603486	-118.124189	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
107	RAL	4160	DSCN8596	34.603507	-118.12417	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
108	RAL	4161	DSCN8598	34.603693	-118.124319	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
109	RAL	4162	DSCN8601	34.603721	-118.124308	Size Class C (>5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
110	RAL	4163	DSCN8603	34.603728	-118.124299	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
111	RAL	4164	DSCN8605	34.603481	-118.124156	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
112	RAL	4165	DSCN8607	34.603499	-118.124177	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
113	RAL	4166	DSCN8610	34.60322	-118.123855	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
114	RAL	4167	DSCN8612	34.603205	-118.123852	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
115	RAL	4168	DSCN8614	34.603199	-118.123871	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
116	RAL	4169	DSCN8616	34.603256	-118.12376	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
117	RAL	4170	DSCN8619	34.603256	-118.123762	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
118	RAL	4171	DSCN8621	34.60333	-118.123648	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
119	RAL	4172	DSCN8623-26	34.6033	-118.123619	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
120	RAL	4173	DSCN8628, DSCN8629	34.603303	-118.123374	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
121	RAL	4174	DSCN8631	34.603154	-118.123379	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
122	RAL	4175	DSCN8633	34.60324	-118.123234	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
123	RAL	4176	DSCN8635	34.603113	-118.12308	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
124	RAL	4177	DSCN8637, DSCN8638	34.603282	-118.122279	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
125	RAL	4178	DSCN8640	34.603304	-118.122275	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
126	RAL	4179	DSCN8642	34.60346	-118.122208	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
127	RAL	4180	DSCN8644	34.603447	-118.122199	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
128	RAL	4181	DSCN8648	34.603556	-118.121992	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
129	RAL	4182	DSCN8651	34.603394	-118.121968	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
130	RAL	4183	DSCN8653	34.603365	-118.121938	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
131	RAL	4184	DSCN8656	34.603332	-118.121864	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
132	RAL	4185	DSCN8658	34.603536	-118.12204	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
133	RAL	4186	DSCN8660	34.603665	-118.122135	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
134	RAL	4188	DSCN8664-66	34.603935	-118.122057	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
135	RAL	4189	DSCN8668	34.603934	-118.122002	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
136	RAL	4190	DSCN8670	34.603917	-118.121983	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
137	RAL	4191	DSCN8674	34.603915	-118.122003	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
138	RAL	4192	DSCN8677	34.603912	-118.122003	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
139	RAL	4193	DSCN8680	34.60392	-118.122021	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
140	RAL	4194	DSCN8683	34.603826	-118.122345	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
141	RAL	4195	DSCN8685	34.603674	-118.122775	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
142	RAL	4196	DSCN8687	34.603701	-118.122752	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
143	RAL	4197	DSCN8689	34.603703	-118.122734	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
144	RAL	4198	DSCN8691	34.603745	-118.12292	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
145	RAL	4199	DSCN8693	34.603478	-118.123153	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
146	RAL	4200	DSCN8696	34.604109	-118.123499	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
147	RAL	4201	DSCN8699	34.604093	-118.123502	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
148	RAL	4202	DSCN8701	34.604092	-118.123505	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
149	RAL	4203	DSCN8704	34.604094	-118.123492	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
150	RAL	4204	DSCN8706	34.604015	-118.124245	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
151	RAL	4205	DSCN8713	34.604063	-118.124361	Size Class C (>5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
152	RAL	4206	DSCN8715	34.604066	-118.124363	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
153	RAL	4207	DSCN8717	34.604072	-118.124349	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
154	RAL	4208	DSCN8719	34.604018	-118.124404	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
155	RAL	4209	DSCN8721	34.603862	-118.124809	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
156	RAL	4210	DSCN8723	34.603837	-118.125048	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
157	MEP	1788	IMG_3691-92	34.604934	-118.125237	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
158	MEP	1789	IMG_3693	34.604606	-118.125553	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
159	MEP	1790	IMG_3694	34.6046	-118.125551	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
160	MEP	1791	IMG_3695, IMG_3696, IMG_3697	34.604476	-118.125092	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
161	MEP	1792	IMG_3698	34.604468	-118.125115	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
162	MEP	1793	IMG_3699, IMG_3700, IMG_3701	34.604589	-118.124767	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
163	MEP	1794	IMG_3702	34.604871	-118.124275	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
164	MEP	1795	IMG_3703	34.605031	-118.124027	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
165	MEP	1796	IMG_3704	34.604719	-118.123879	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
166	MEP	1797	IMG_3705	34.604722	-118.123876	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
167	MEP	1798	IMG_3706	34.604613	-118.123934	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
168	MEP	1799	IMG_3707	34.604615	-118.123413	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
169	MEP	1800	IMG_3709	34.604957	-118.123487	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
170	MEP	1801	IMG_3710, IMG_3711	34.604984	-118.123288	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
171	MEP	1802	IMG_3712-15	34.604572	-118.123116	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
172	MEP	1803	IMG_3716	34.604647	-118.123013	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
173	MEP	1804	IMG_3718	34.604662	-118.123034	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
174	MEP	1805	IMG_3719	34.604647	-118.123024	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
175	MEP	1806	IMG_3720	34.604657	-118.123007	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
176	MEP	1807	IMG_3722	34.604653	-118.123028	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
177	MEP	1808	IMG_3725	34.604714	-118.122872	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
178	MEP	1809	IMG_3727	34.604724	-118.122887	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
179	MEP	1810	IMG_3729	34.604734	-118.122878	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
180	MEP	1811	IMG_3730	34.604732	-118.122871	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
181	MEP	1812	IMG_3732	34.604892	-118.122786	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
182	MEP	1813	IMG_3733	34.604806	-118.122689	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
183	MEP	1814	IMG_3734	34.605098	-118.122609	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
184	MEP	1815	IMG_3735	34.605088	-118.122701	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
185	MEP	1816	IMG_3736	34.605097	-118.122714	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
186	MEP	1817	IMG_3737	34.60509	-118.122708	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
187	MEP	1818	IMG_3758	34.605106	-118.122613	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
188	MEP	1819	IMG_3760	34.604687	-118.122323	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
189	MEP	1820	IMG_3763-67	34.604687	-118.122304	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
190	MEP	1821	IMG_3768	34.604519	-118.122399	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
191	MEP	1822	IMG_3769	34.604526	-118.122386	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
192	MEP	1823	IMG_3770-78	34.604159	-118.121943	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	NONE	YES	Direct
193	MEP	1824	IMG_3780	34.604151	-118.121943	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	NONE	YES	Direct
194	MEP	1825	IMG_3784	34.604244	-118.122228	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
195	MEP	1826	IMG_3785	34.604252	-118.122227	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
196	MEP	1827	IMG_3788	34.604252	-118.122264	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
197	MEP	1828	IMG_3789	34.604257	-118.122266	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
198	MEP	1829	IMG_3800	34.604271	-118.12224	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
199	MEP	1830	IMG_3802	34.604274	-118.122247	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
200	MEP	1831	IMG_3807	34.604268	-118.122229	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
201	MEP	1832	IMG_3808	34.60454	-118.12264	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
202	MEP	1833	IMG_3809	34.604548	-118.12277	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
203	MEP	1834	IMG_3810	34.60449	-118.122769	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
204	MEP	1835	IMG_3811-13	34.604466	-118.123134	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
205	MEP	1836	IMG_3814	34.604468	-118.123135	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
206	MEP	1837	IMG_3816	34.604348	-118.124355	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
207	MEP	1838	IMG_3817	34.604431	-118.124541	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
208	MEP	1839	IMG_3818	34.604353	-118.124715	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
209	MEP	1840	IMG_3820	34.604308	-118.125209	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
210	MEP	1841	IMG_3821	34.604325	-118.125243	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
211	MEP	1842	IMG_3822	34.604339	-118.125319	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
212	MEP	1843	IMG_3823	34.60263	-118.125321	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
213	MEP	1844	IMG_3825-27	34.602613	-118.125144	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
214	MEP	1845	IMG_3828	34.602625	-118.125144	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
215	MEP	1846	IMG_3829	34.602634	-118.125164	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
216	MEP	1847	IMG_3831-35	34.602747	-118.124788	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
217	MEP	1848	IMG_3837	34.602676	-118.124484	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
218	MEP	1849	IMG_3838-41	34.6026	-118.124386	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
219	MEP	1850	IMG_3843	34.602475	-118.123999	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
220	MEP	1851	IMG_3845	34.602481	-118.123993	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
221	MEP	1852	IMG_3846	34.602541	-118.123827	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
222	MEP	1853	IMG_3848	34.602549	-118.123727	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
223	MEP	1854	IMG_3849	34.602546	-118.123731	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
224	MEP	1855	IMG_3852	34.602544	-118.123738	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
225	MEP	1856	IMG_3854-57	34.602548	-118.123728	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
226	MEP	1857	IMG_3858	34.602675	-118.123664	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
227	MEP	1858	IMG_3859	34.602673	-118.123673	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
228	MEP	1859	IMG_3861	34.602654	-118.123466	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
229	MEP	1860	IMG_3862	34.602672	-118.123349	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
230	MEP	1861	IMG_3864	34.602639	-118.123032	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
231	MEP	1862	IMG_3865-71	34.602619	-118.122553	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
232	MEP	1863	IMG_3872	34.60262	-118.122566	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
233	MEP	1864	IMG_3875	34.602625	-118.122531	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
234	MEP	1865	IMG_3876	34.60262	-118.122529	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
235	MEP	1866	IMG_3877, IMG_3878	34.602748	-118.122467	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
236	MEP	1867	IMG_3879	34.602751	-118.122468	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
237	MEP	1868	IMG_3880	34.602752	-118.122467	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
238	MEP	1869	IMG_3883	34.602894	-118.121933	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
239	MEP	1870	IMG_3887	34.60283	-118.125346	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
240	MEP	1871	IMG_3891	34.60279	-118.124992	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
241	MEP	1872	IMG_3892-94	34.602882	-118.124787	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
242	MEP	1873	IMG_3897	34.602943	-118.124689	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
243	MEP	1874	IMG_3900-02	34.602894	-118.1246	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
244	MEP	1875	IMG_3903	34.602944	-118.124581	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
245	MEP	1876	IMG_3904	34.602893	-118.124541	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
246	MEP	1877	IMG_3906-11	34.602802	-118.124488	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
247	MEP	1878	IMG_3912	34.602814	-118.124499	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
248	MEP	1879	IMG_3913	34.602952	-118.124227	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
249	MEP	1880	IMG_3914	34.602939	-118.124208	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
250	MEP	1881	IMG_3915	34.602946	-118.124211	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
251	MEP	1882	IMG_3916	34.602815	-118.12418	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
252	MEP	1883	IMG_3917	34.602893	-118.124069	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
253	MEP	1884	IMG_3918	34.602981	-118.124162	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
254	MEP	1885	IMG_3919	34.603065	-118.124191	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
255	MEP	1886	IMG_3920	34.602989	-118.124071	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
256	MEP	1887	IMG_3921	34.602969	-118.123833	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
257	MEP	1888	IMG_3922	34.602814	-118.123774	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
258	MEP	1889	IMG_3923	34.602968	-118.123604	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
259	MEP	1890	IMG_3924	34.602866	-118.123049	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
260	MEP	1891	IMG_3925, IMG_3926	34.60297	-118.122997	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
261	MEP	1892	IMG_3927	34.602954	-118.12299	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
262	MEP	1893	IMG_3928	34.602962	-118.122986	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
263	MEP	1894	IMG_3930	34.602977	-118.12297	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
264	MEP	1895	IMG_3931	34.602981	-118.12296	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
265	MEP	1896	IMG_3932	34.603043	-118.122872	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
266	MEP	1897	IMG_3933	34.602909	-118.122787	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
267	MEP	1898	IMG_3934	34.602912	-118.122777	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
268	MEP	1900	IMG_3936	34.602902	-118.122788	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
269	MEP	1901	IMG_3937, IMG_3938, IMG_3939	34.602897	-118.122776	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
270	MEP	1902	IMG_3940	34.602896	-118.122779	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
271	MEP	1903	IMG_3942	34.602894	-118.122749	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
272	MEP	1904	IMG_3943	34.602915	-118.122749	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
273	MEP	1905	IMG_3945	34.602891	-118.122796	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
274	MEP	1906	IMG_3954	34.602897	-118.122806	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
275	MEP	1907	IMG_3958	34.602903	-118.122751	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
276	MEP	1908	IMG_3961	34.602902	-118.122768	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
277	MEP	1909	IMG_3965	34.604038	-118.121989	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	NONE	YES	Direct
278	MEP	1910	IMG_3968	34.604041	-118.121983	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	NONE	YES	Direct
279	MEP	1911	IMG_3975	34.60404	-118.122005	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
280	MEP	1912	IMG_3981	34.604049	-118.122	Size Class A (<1 meter)	Live	N	NONE	NONE	YES	Direct
281	MEP	1913	IMG_3984	34.604038	-118.122128	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
282	MEP	1914	IMG_3985	34.603978	-118.122527	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
283	MEP	1915	IMG_3986	34.603989	-118.122514	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
284	MEP	1916	IMG_3988, IMG_3990	34.60397	-118.122627	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
285	MEP	1917	IMG_3991	34.60397	-118.122629	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
286	MEP	1918	IMG_3993	34.603919	-118.122866	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
287	MEP	1919	IMG_3994	34.60392	-118.122861	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
288	MEP	1920	IMG_3995-97	34.604158	-118.123152	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
289	MEP	1921	IMG_3998	34.604227	-118.123236	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
290	MEP	1922	IMG_3999	34.604104	-118.123359	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
291	MEP	1923	IMG_4002-08	34.604302	-118.123692	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
292	MEP	1924	IMG_4010	34.604326	-118.123905	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
293	MEP	1925	IMG_4011	34.604318	-118.123902	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
294	MEP	1926	IMG_4012	34.604162	-118.124471	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
295	MEP	1927	IMG_4014	34.604091	-118.124624	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
296	MEP	1928	IMG_4016	34.604097	-118.124858	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
297	MEP	1930	IMG_4018	34.603824	-118.12555	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
298	MEP	1931	IMG_4020	34.603824	-118.125549	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
299	RAL	3983	DSCN7994	34.603672	-118.126027	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
300	RAL	3984	DSCN7996	34.603749	-118.12704	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
301	RAL	3985	DSCN8004	34.603765	-118.127064	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
302	RAL	3986	DSCN8006	34.603758	-118.127023	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
303	RAL	3987	DSCN8014	34.60366	-118.128357	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
304	RAL	3988	DSCN8017	34.603661	-118.128368	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
305	RAL	3989	DSCN8021	34.603644	-118.128356	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
306	RAL	3990	DSCN8024, DSCN8026, DSCN8028, DSCN8029	34.603732	-118.128816	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
307	RAL	3991	DSCN8032, DSCN8033	34.603744	-118.129589	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
308	RAL	3992	DSCN8035	34.603827	-118.129098	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
309	RAL	3993	DSCN8037	34.604143	-118.12925	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
310	RAL	3994	DSCN8039	34.604142	-118.129255	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
311	RAL	3995	DSCN8041	34.604193	-118.129588	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
312	RAL	3996	DSCN8043	34.604203	-118.129585	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
313	RAL	3997	DSCN8046, DSCN8047	34.604961	-118.129649	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
314	RAL	3998	DSCN8050	34.604958	-118.129658	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
315	RAL	3999	DSCN8052	34.60521	-118.129577	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
316	RAL	4000	DSCN8054	34.605221	-118.129592	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
317	RAL	4001	DSCN8060	34.605232	-118.129597	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
318	RAL	4002	DSCN8062	34.605227	-118.129605	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
319	RAL	4003	DSCN8064	34.605218	-118.129562	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
320	RAL	4004	DSCN8066	34.605238	-118.129572	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
321	RAL	4005	DSCN8068	34.60502	-118.129388	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
322	RAL	4006	DSCN8070	34.605027	-118.12939	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
323	RAL	4007	DSCN8074	34.604814	-118.129381	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
324	RAL	4008	DSCN8079	34.604833	-118.129388	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
325	RAL	4009	DSCN8081	34.604852	-118.1294	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
326	RAL	4010	DSCN8084	34.604828	-118.12939	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
327	RAL	4011	DSCN8086	34.604826	-118.129419	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
328	RAL	4012	DSCN8093	34.60484	-118.129404	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
329	RAL	4013	DSCN8096	34.604772	-118.129209	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
330	RAL	4014	DSCN8099	34.604779	-118.129197	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
331	RAL	4015	DSCN8102	34.604786	-118.129213	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
332	RAL	4016	DSCN8104, DSCN8105	34.604707	-118.128961	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
333	RAL	4017	DSCN8107	34.604619	-118.128775	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
334	RAL	4018	DSCN8109	34.604732	-118.128096	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
335	RAL	4019	DSCN8111	34.604728	-118.128102	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
336	RAL	4020	DSCN8114	34.604736	-118.128095	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
337	RAL	4021	DSCN8116	34.60524	-118.128191	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
338	RAL	4022	DSCN8119, DSCN8120	34.605363	-118.128046	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
339	RAL	4023	DSCN8122	34.605332	-118.127865	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
340	RAL	4024	DSCN8124	34.605316	-118.127894	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
341	RAL	4025	DSCN8127	34.605298	-118.127908	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
342	RAL	4026	DSCN8131	34.605315	-118.1279	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
343	RAL	4027	DSCN8134	34.605323	-118.127888	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
344	RAL	4028	DSCN8136	34.605333	-118.127613	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
345	RAL	4029	DSCN8139	34.605318	-118.127614	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
346	RAL	4030	DSCN8145	34.605348	-118.12765	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
347	RAL	4031	DSCN8151	34.604853	-118.127828	Size Class C (>5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
348	RAL	4032	DSCN8153	34.604918	-118.127535	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
349	RAL	4033	DSCN8155	34.604929	-118.127541	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
350	RAL	4034	DSCN8159, DSCN8160	34.604916	-118.127565	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
351	RAL	4035	DSCN8167	34.604906	-118.127506	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
352	RAL	4036	DSCN8169, DSCN8171	34.60479	-118.127411	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
353	RAL	4037	DSCN8173	34.604945	-118.127433	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
354	RAL	4038	DSCN8176	34.604923	-118.127396	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
355	RAL	4039	DSCN8181	34.604947	-118.127398	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
356	RAL	4040	DSCN8183	34.605004	-118.127279	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
357	RAL	4041	DSCN8185	34.60518	-118.126979	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
358	RAL	4042	DSCN8187	34.605313	-118.126939	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
359	RAL	4043	DSCN8190	34.605338	-118.126896	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
360	RAL	4044	DSCN8192, DSCN8193	34.60527	-118.126767	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
361	RAL	4045	DSCN8195	34.605082	-118.12681	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
362	RAL	4046	DSCN8197	34.605183	-118.126526	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
363	RAL	4047	DSCN8199	34.605185	-118.126525	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
364	RAL	4048	DSCN8202	34.605173	-118.12652	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
365	RAL	4049	DSCN8205	34.605004	-118.12662	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
366	RAL	4050	DSCN8207	34.605114	-118.126334	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
367	RAL	4051	DSCN8209	34.605021	-118.125927	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
368	RAL	4052	DSCN8212	34.605022	-118.12592	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
369	RAL	4053	DSCN8214	34.60484	-118.125722	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
370	MEP	1719	DSCN7963	34.603721	-118.125749	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
371	MEP	1720	DSCN7964	34.603726	-118.125748	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
372	MEP	1721	DSCN7965, DSCN7966	34.603967	-118.126445	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
373	MEP	1722	DSCN7967	34.603919	-118.126759	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
374	MEP	1723	DSCN7969	34.603911	-118.126753	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
375	MEP	1724	DSCN7971	34.603924	-118.126763	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
376	MEP	1725	DSCN7972	34.604057	-118.126811	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
377	MEP	1726	DSCN7973	34.604069	-118.126806	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
378	MEP	1727	DSCN7974	34.604068	-118.126806	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
379	MEP	1728	DSCN7975	34.603911	-118.127109	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
380	MEP	1729	DSCN7977	34.604092	-118.127227	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
381	MEP	1730	DSCN7980	34.60421	-118.127731	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
382	MEP	1731	DSCN7981	34.60416	-118.127983	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
383	MEP	1732	DSCN7982	34.603897	-118.128428	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
384	MEP	1733	DSCN7983	34.603902	-118.128424	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
385	MEP	1734	DSCN7989	34.603891	-118.128453	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
386	MEP	1735	DSCN7990	34.603883	-118.128409	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
387	MEP	1736	DSCN7991	34.603882	-118.128558	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
388	MEP	1737	DSCN7993	34.60385	-118.128845	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
389	MEP	1738	DSCN7994	34.604003	-118.129032	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
390	MEP	1739	DSCN7996	34.604174	-118.129606	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
391	MEP	1740	DSCN7997	34.604155	-118.129619	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
392	MEP	1741	DSCN7998	34.60416	-118.129617	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
393	MEP	1742	DSCN7999	34.604166	-118.129619	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
394	MEP	1743	DSCN8001-06	34.604681	-118.129362	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
395	MEP	1744	DSCN8007-11	34.60469	-118.129346	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
396	MEP	1745	DSCN8013-14	34.604694	-118.129365	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
397	MEP	1746	DSCN8015	34.6047	-118.129357	Size Class A (<1 meter)	Live	Y	NONE	REMOVAL	YES	Direct
398	MEP	1747	DSCN8016	34.60441	-118.12921	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
399	MEP	1748	DSCN8017	34.604532	-118.129065	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
400	MEP	1749	DSCN8019	34.604599	-118.128721	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
401	MEP	1750	DSCN8020	34.604136	-118.128865	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
402	MEP	1751	DSCN8022	34.604122	-118.128774	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
403	MEP	1752	DSCN8023	34.604124	-118.128757	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
404	MEP	1753	DSCN8024-28	34.604206	-118.128383	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
405	MEP	1754	DSCN8030-32	34.604422	-118.128442	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
406	MEP	1755	DSCN8033	34.604406	-118.12776	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
407	MEP	1756	DSCN8035	34.604388	-118.127748	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
408	MEP	1757	DSCN8037	34.604296	-118.127339	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
409	MEP	1758	DSCN8038	34.604401	-118.127268	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
410	MEP	1759	DSCN8039	34.604395	-118.127285	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
411	MEP	1760	DSCN8040	34.604395	-118.127295	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
412	MEP	1761	DSCN8042	34.604593	-118.127269	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
413	MEP	1762	DSCN8047	34.604583	-118.127278	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
414	MEP	1763	DSCN8048	34.604598	-118.127301	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
415	MEP	1764	DSCN8051-57	34.604411	-118.127001	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
416	MEP	1765	DSCN8059	34.604414	-118.127014	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
417	MEP	1766	DSCN8060	34.604325	-118.126899	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
418	MEP	1767	DSCN8062	34.604328	-118.126896	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
419	MEP	1768	DSCN8063	34.604337	-118.126899	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
420	MEP	1769	DSCN8068-70	34.604561	-118.12665	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
421	MEP	1770	DSCN8071	34.604576	-118.126671	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
422	MEP	1771	DSCN8072	34.604581	-118.126649	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
423	MEP	1772	DSCN8073	34.60457	-118.126684	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
424	MEP	1773	DSCN8081	34.6045	-118.126235	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
425	MEP	1774	DSCN8082	34.6045	-118.126235	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
426	MEP	1775	DSCN8084-87	34.604407	-118.126135	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
427	MEP	1776	DSCN8089	34.604417	-118.126127	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
428	MEP	1777	DSCN8090	34.604416	-118.126144	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
429	MEP	1778	DSCN8091	34.604414	-118.126147	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
430	MEP	1779	DSCN8092	34.604417	-118.126141	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
431	MEP	1780	DSCN8094	34.604407	-118.126161	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
432	MEP	1781	DSCN8096	34.604401	-118.126142	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
433	MEP	1782	DSCN8098	34.604406	-118.126135	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
434	MEP	1783	DSCN8099	34.604403	-118.126136	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
435	MEP	1784	DSCN8100	34.604583	-118.126043	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
436	MEP	1785	DSCN8102	34.604546	-118.125911	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
437	MEP	1786	DSCN8104-06	34.604796	-118.125601	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
438	MEP	1787	DSCN8108	34.604806	-118.125609	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
439	TJM	3269	IMG_0025	34.602621	-118.128014	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
440	TJM	3270	IMG_0026	34.602294	-118.128133	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
441	TJM	3271	IMG_0027	34.602283	-118.128145	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
442	TJM	3272	IMG_0031	34.602294	-118.12815	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
443	TJM	3273	IMG_0032	34.602281	-118.128311	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
444	TJM	3274	IMG_0034	34.602264	-118.128341	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
445	TJM	3275	IMG_0042	34.602282	-118.128334	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
446	TJM	3276	IMG_0043	34.602325	-118.128793	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
447	TJM	3277	IMG_0044	34.602518	-118.129085	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
448	TJM	3278	IMG_0046	34.602508	-118.12908	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
449	TJM	3279	IMG_0049	34.602531	-118.129085	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
450	TJM	3280	IMG_0052	34.602811	-118.129064	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
451	TJM	3281	IMG_0054	34.602806	-118.129067	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
452	TJM	3282	IMG_0055	34.602824	-118.129054	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
453	TJM	3283	IMG_0056	34.603056	-118.129066	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
454	TJM	3284	IMG_0057	34.60302	-118.128775	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
455	TJM	3285	IMG_0058	34.603003	-118.128774	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
456	TJM	3286	IMG_0059	34.603005	-118.128747	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
457	TJM	3287	IMG_0060	34.60301	-118.128767	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
458	TJM	3288	IMG_0062	34.603195	-118.127969	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
459	TJM	3289	IMG_0063	34.603254	-118.127812	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
460	TJM	3290	IMG_0064	34.603234	-118.127829	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
461	TJM	3291	IMG_0065	34.603181	-118.127744	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
462	TJM	3292	IMG_0066	34.6031	-118.127643	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
463	TJM	3293	IMG_0067	34.603148	-118.127472	Size Class C (>5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
464	TJM	3294	IMG_0069	34.603258	-118.127347	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
465	TJM	3295	IMG_0072	34.603271	-118.127359	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
466	TJM	3296	IMG_0073	34.603004	-118.127157	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
467	TJM	3297	IMG_0074	34.603013	-118.127168	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
468	TJM	3298	IMG_0076	34.602996	-118.127179	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
469	TJM	3299	IMG_0078	34.602999	-118.127221	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
470	TJM	3300	IMG_0079	34.602972	-118.127222	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
471	TJM	3301	IMG_0081	34.603017	-118.127212	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
472	TJM	3302	IMG_0082	34.603007	-118.1272	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
473	TJM	3303	IMG_0083	34.60301	-118.127206	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
474	TJM	3313	IMG_0098	34.602995	-118.126084	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
475	TJM	3304	IMG_0084	34.602982	-118.127169	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
476	TJM	3305	IMG_0085	34.603036	-118.126967	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
477	TJM	3306	IMG_0086	34.602958	-118.126807	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
478	TJM	3307	IMG_0090	34.602941	-118.126828	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
479	TJM	3308	IMG_0091	34.602947	-118.126826	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
480	TJM	3309	IMG_0092	34.603061	-118.126737	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
481	TJM	3310	IMG_0093	34.603058	-118.126719	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
482	TJM	3311	IMG_0094	34.603133	-118.12654	Size Class C (>5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
483	TJM	3312	IMG_0095	34.603027	-118.126225	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
484	TJM	3314	IMG_0099	34.602975	-118.126117	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
485	TJM	3315	IMG_0100	34.602956	-118.125886	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
486	TJM	3316	IMG_0101	34.603021	-118.125774	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
487	TJM	3317	IMG_0102	34.603022	-118.125771	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
488	TJM	3318	IMG_0103	34.603014	-118.125773	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
489	TJM	3255	IMG_0002	34.602711	-118.125843	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
490	TJM	3256	IMG_0003	34.602705	-118.125855	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
491	TJM	3257	IMG_0004	34.602398	-118.126333	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
492	TJM	3258	IMG_0006	34.602405	-118.126337	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
493	TJM	3259	IMG_0007	34.602414	-118.126415	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
494	TJM	3260	IMG_0008	34.602747	-118.126483	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
495	TJM	3261	IMG_0010	34.602787	-118.126711	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
496	TJM	3262	IMG_0011	34.602743	-118.127279	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
497	TJM	3263	IMG_0012	34.60275	-118.127289	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
498	TJM	3264	IMG_0014	34.602737	-118.127305	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
499	TJM	3265	IMG_0019	34.602689	-118.127674	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
500	TJM	3266	IMG_0021	34.602695	-118.127695	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
501	TJM	3267	IMG_0023	34.602673	-118.12778	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
502	TJM	3268	IMG_0024	34.602631	-118.127977	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
503	RAL	3902	DSCN7711	34.602266	-118.125745	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
504	RAL	3903	DSCN7713	34.602219	-118.125782	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
505	RAL	3904	DSCN7715	34.602219	-118.125781	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
506	RAL	3905	DSCN7719	34.602223	-118.126123	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
507	RAL	3906	DSCN7724	34.602096	-118.126091	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
508	RAL	3907	DSCN7726	34.601976	-118.126376	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
509	RAL	3908	DSCN7728	34.602055	-118.126356	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
510	RAL	3909	DSCN7730	34.602271	-118.12634	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
511	RAL	3910	DSCN7732	34.602292	-118.126353	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
512	RAL	3911	DSCN7734	34.602139	-118.127107	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
513	RAL	3912	DSCN7736	34.602198	-118.127106	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
514	RAL	3913	DSCN7737	34.602216	-118.127084	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
515	RAL	3914	DSCN7740	34.601972	-118.127528	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
516	RAL	3915	DSCN7742	34.602418	-118.127648	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
517	RAL	3916	DSCN7745	34.602395	-118.12799	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
518	RAL	3917	DSCN7749	34.602418	-118.127993	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
519	RAL	3918	DSCN7750	34.602413	-118.127956	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
520	RAL	3919	DSCN7758	34.602011	-118.128067	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
521	RAL	3920	DSCN7760	34.602141	-118.128135	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
522	RAL	3921	DSCN7762	34.601959	-118.128369	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
523	RAL	3922	DSCN7764	34.602051	-118.12931	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
524	RAL	3923	DSCN7767	34.602077	-118.129327	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
525	RAL	3924	DSCN7772	34.602112	-118.129363	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
526	RAL	3925	DSCN7774	34.602864	-118.129488	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
527	RAL	3926	DSCN7776	34.602891	-118.129512	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
528	RAL	3927	DSCN7778	34.603161	-118.129371	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
529	RAL	3928	DSCN7781	34.603549	-118.129289	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
530	RAL	3929	DSCN7784	34.603512	-118.129027	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
531	RAL	3930	DSCN7786	34.603487	-118.129042	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
532	RAL	3931	DSCN7789	34.603485	-118.129045	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
533	RAL	3932	DSCN7791	34.603423	-118.128804	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
534	RAL	3933	DSCN7793	34.603451	-118.128647	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
535	RAL	3934	DSCN7795	34.603461	-118.12864	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
536	RAL	3935	DSCN7798	34.603325	-118.12869	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
537	RAL	3936	DSCN7800	34.603332	-118.128651	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
538	RAL	3937	DSCN7802	34.60334	-118.128397	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
539	RAL	3938	DSCN7804	34.603435	-118.128272	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
540	RAL	3939	DSCN7806	34.603384	-118.127686	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
541	RAL	3940	DSCN7808	34.603564	-118.127677	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
542	RAL	3941	DSCN7811	34.603551	-118.127694	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
543	RAL	3942	DSCN7815	34.603542	-118.127678	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
544	RAL	3943	DSCN7817	34.603664	-118.127595	Size Class C (>5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
545	RAL	3944	DSCN7819	34.603623	-118.127374	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
546	RAL	3945	DSCN7821	34.603514	-118.127306	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
547	RAL	3946	DSCN7823	34.603346	-118.127175	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
548	RAL	3947	DSCN7825	34.603389	-118.126717	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
549	RAL	3948	DSCN7827	34.603436	-118.126506	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
550	RAL	3949	DSCN7829	34.603442	-118.126486	Size Class B (>1 meter and <5 meters)	Dead	N	NONE	REMOVAL	YES	Direct
551	RAL	3950	DSCN7831	34.603292	-118.126461	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
552	RAL	3951	DSCN7833	34.603359	-118.126325	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
553	RAL	3952	DSCN7835	34.603333	-118.126234	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct

Object ID	Recorder	Tree ID	Photo Name	Latitude	Longitude	Size Class	Live or Dead?	Mature Tree (branched)	Flowering or Fruiting Stage	Impact	Within 15 m of Impact	Direct and Indirect Impacts
554	RAL	3953	DSCN7837	34.603378	-118.125961	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
555	RAL	3954	DSCN7839	34.603382	-118.125968	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
556	RAL	3955	DSCN7842	34.603289	-118.125827	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
557	RAL	3956	DSCN7844	34.603387	-118.12581	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
558	RAL	3957	DSCN7846	34.603208	-118.125803	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
559	RAL	3958	DSCN7848	34.603136	-118.125982	Size Class B (>1 meter and <5 meters)	Dead	Y	NONE	REMOVAL	YES	Direct
560	RAL	3959	DSCN7849	34.603176	-118.126061	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct
561	RAL	3960	DSN7854	34.603165	-118.126059	Size Class B (>1 meter and <5 meters)	Live	Y	NONE	REMOVAL	YES	Direct
562	RAL	3961	DSCN7856	34.603162	-118.126036	Size Class A (<1 meter)	Live	N	NONE	REMOVAL	YES	Direct
563	RAL	3962	DSCN7858	34.60309	-118.12589	Size Class B (>1 meter and <5 meters)	Live	N	NONE	REMOVAL	YES	Direct

Attachment C

Project Mitigation Measures

Designated Biologist Authority. The designated biologist shall have authority to immediately stop any activity that does not comply with the biological resources mitigation measures and/or to order any reasonable measure to avoid the unauthorized take of an individual western Joshua tree.

Compliance Monitoring. The designated biologist shall be on site daily when impacts occur. The designated biologist shall conduct compliance inspections to minimize incidental take of western Joshua trees and impacts to other sensitive biological resources; prevent unlawful take of western Joshua trees; ensure that signs, stakes, and fencing are intact; and ensure that impacts are only occurring within the direct impact footprint. Weekly written observation and inspection records that summarize oversight activities, compliance inspections, and monitoring activities required by the Incidental Take Permit shall be prepared.

Education Program. An education program (Worker Environmental Awareness Program [WEAP]) for all persons employed or otherwise working in the project site shall be administered before impacts occur. The WEAP shall consist of a presentation from the designated biologist that includes a discussion of the biology and status of western Joshua tree, along with other biological resources mitigation measures described in the California Environmental Quality Act document. Interpretation for non-English-speaking workers shall be provided, and the same instruction shall be provided to any new workers before they are authorized to perform work in the project area. Upon completion of the WEAP, employees shall sign a form stating they attended the program and understand all protection measures. This training shall be repeated at least once annually for long-term and/or permanent employees who will be conducting work in the project area.

Construction Monitoring Notebook. The designated biologist shall maintain a construction-monitoring notebook on site throughout the construction period, which shall include a copy of the biological resources mitigation measures with attachments and a list of signatures of all personnel who have successfully completed the education program. The notebook will include a sign-off date page for the designated biologist to sign and date each construction date for which the project is in compliance. The permittee shall ensure that a copy of the construction monitoring notebook is available for review at the project site upon request by the California Department of Fish and Wildlife.

Delineation of Property Boundaries. Before beginning activities that would cause impacts, the contractor shall, in consultation with the designated biologist, clearly delineate the boundaries with fencing, stakes, or flags, consistent with the grading plan, within which the impacts will take place. All impacts outside the fenced, staked, or flagged areas shall be avoided, and all fencing, stakes, and flags shall be maintained until the completion of impacts in that area.

Hazardous Waste. The applicant shall immediately stop work and, pursuant to pertinent state and federal statutes and regulations, arrange for repair and clean up by qualified individuals of any fuel or hazardous waste leaks or spills at the time of occurrence, or as soon as it is safe to do so.

Herbicides. The applicant shall limit herbicide use for invasive plant species and shall use herbicides only if it has been determined that hand or mechanical efforts are infeasible. To prevent drift, the permittee shall apply herbicides only when wind speeds are less than 7 miles per hour. All herbicide application shall be performed by a licensed applicator and in accordance with all applicable federal, state, and local laws and regulations.

Trash and Debris. The following avoidance and minimization measures shall be implemented during project construction.

(1) Fully covered trash receptacles that are animal-proof will be installed and used by the operator to contain all food, food scraps, food wrappers, beverage containers, and other miscellaneous trash. Trash contained within the receptacles will be removed at least once a week from the project site.

(2) Construction work areas shall be kept clean of debris, such as cable, trash, and construction materials. All construction/contractor personnel shall collect all litter, vehicle fluids, and food waste from the project site on a daily basis.

Invasive Plant Management. In order to reduce the spread of invasive plant species, landscape plants within 200 feet of native vegetation communities shall not be on the most recent version of the California Invasive Plant Inventory (http://www.cal-ipc.org/ip/inventory/index.php). Post-construction, the applicant shall continually remove invasive plant species on site by hand or mechanical methods, as feasible.

Palmdale 61

Photos collected by Rachael A. Lyons (RAL) on May 13, 2024

by Megan Enright



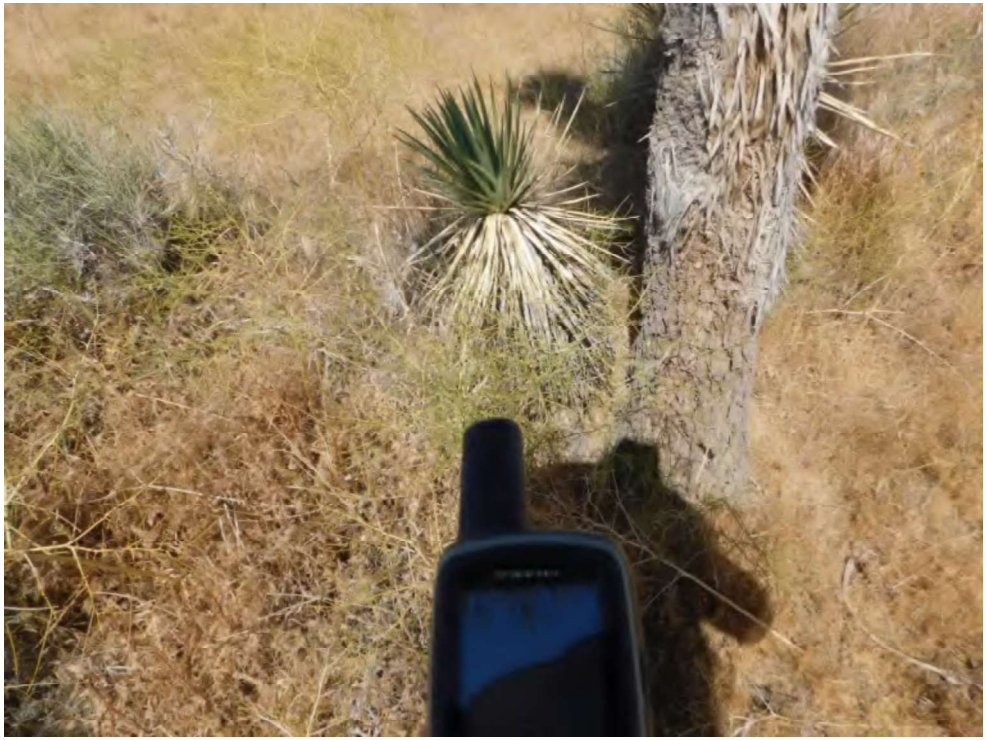
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DSCN7434



DSCN7444



DSCN7449



DSCN7450



DSCN7454



DSCN7456



DSCN7458



DSCN7465



DSCN7468



DSCN7470

Palmdale 61
Photos collected by Rachael A. Lyons (RAL) on May 28, 2024

by Megan Enright



DSCN7711



DSCN7713



DSCN7715



DSCN7716



DSCN7717



DSCN7719



DSCN7720



DSCN7721



DSCN7724



DSCN7726



DSCN7728



DSCN7730



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DSCN7749



DSCN7750



DSCN7751



DSCN7752



DSCN7753



DSCN7754



DSCN7755



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DSCN7856



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DSCN7994



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DSCN7998



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DSCN8056



DSCN8057



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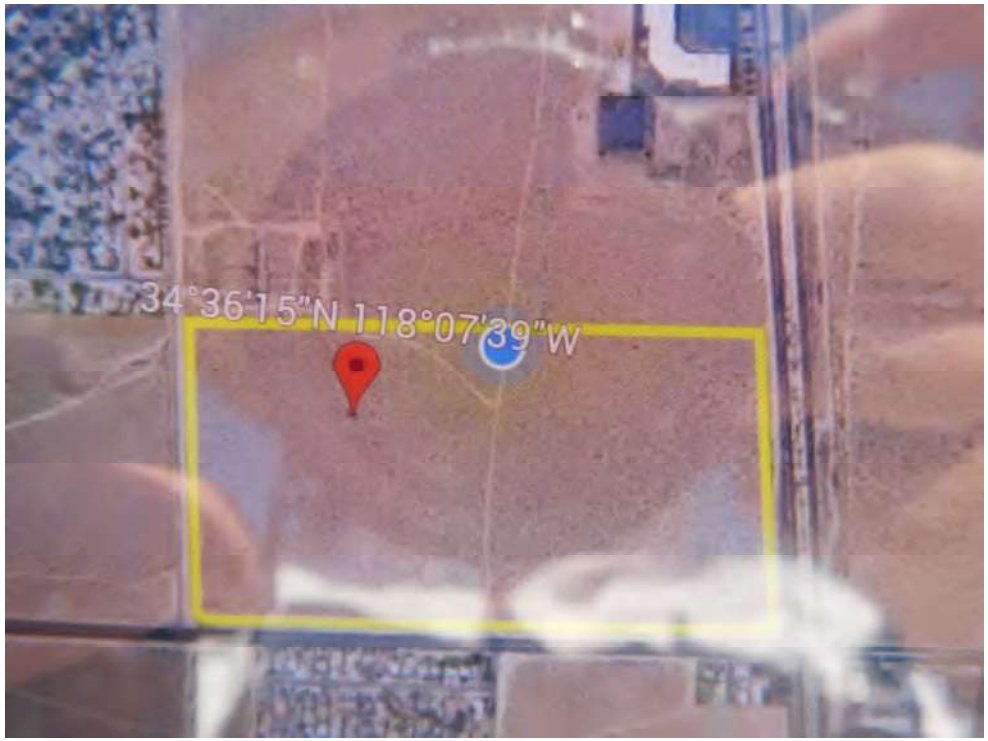
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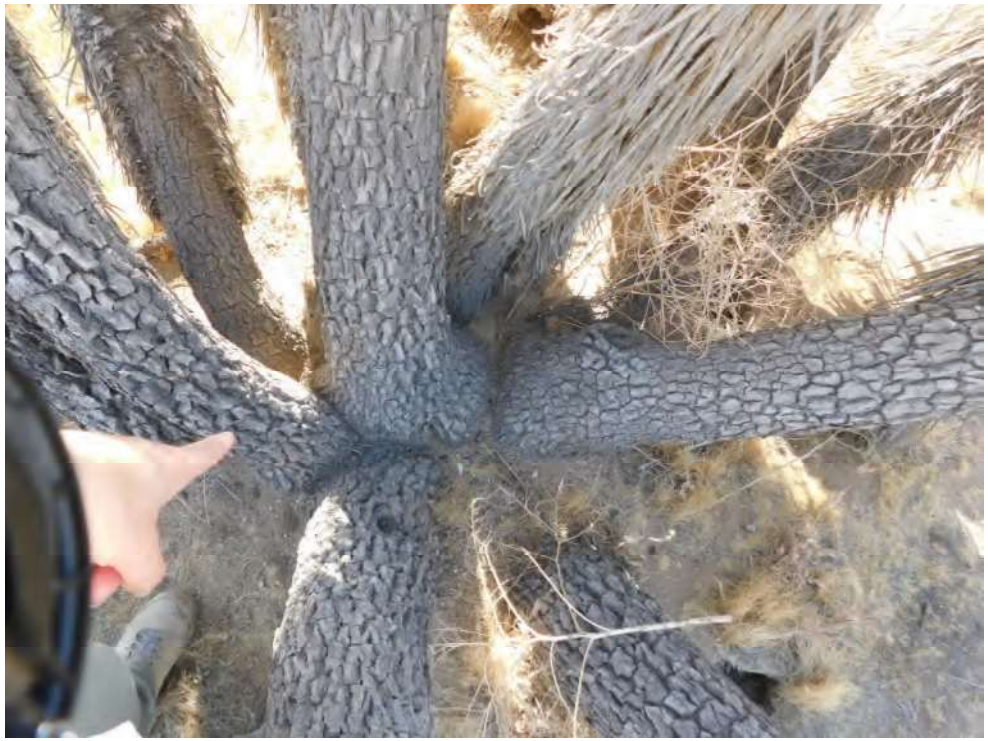
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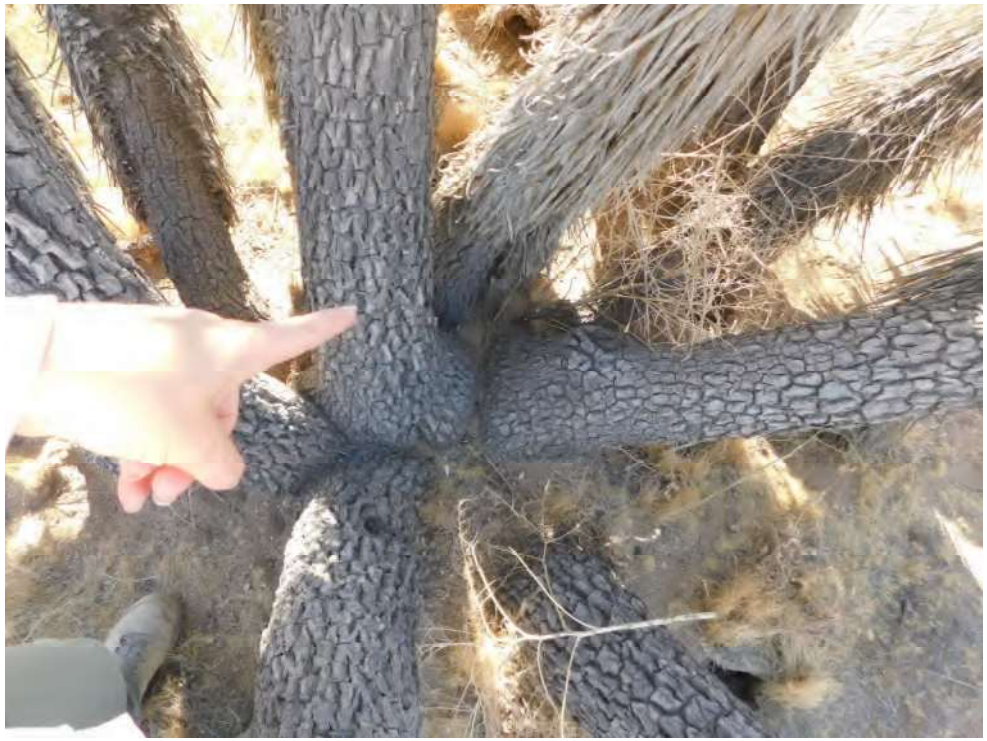
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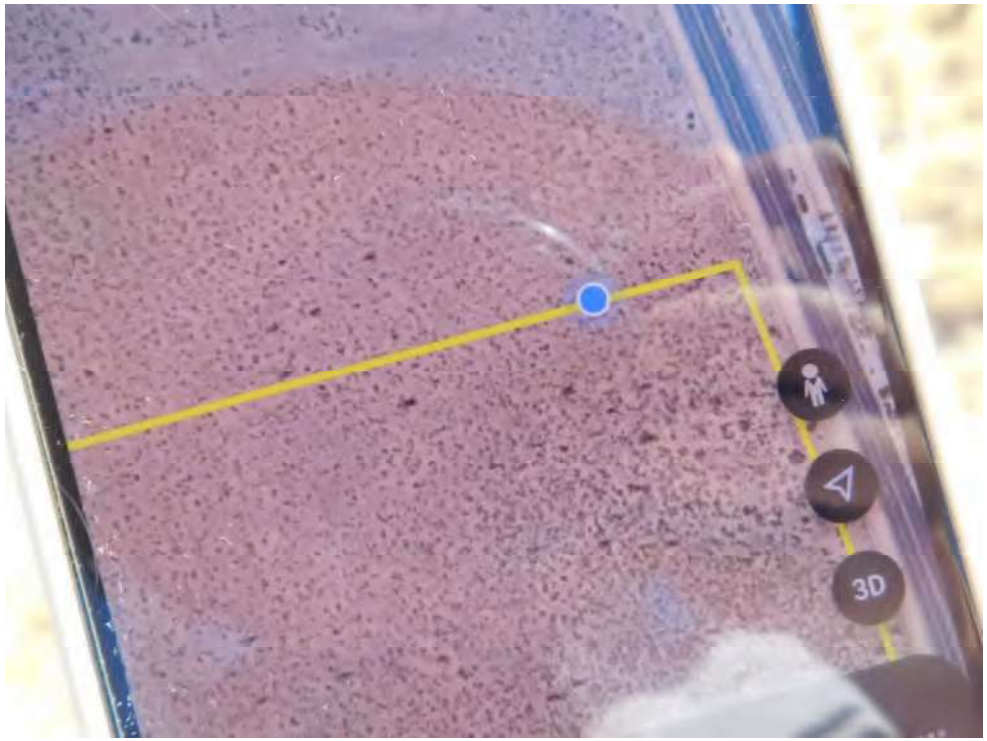
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DSCN8638

Palmdale 61
Photos collected by Travis J. McGill (TJM) on May 28, 2024

by Megan Enright



IMG_0002



IMG_0003



IMG_0004



IMG_0005



IMG_0006



IMG_0007



IMG_0008



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IMG_0010



IMG_0011



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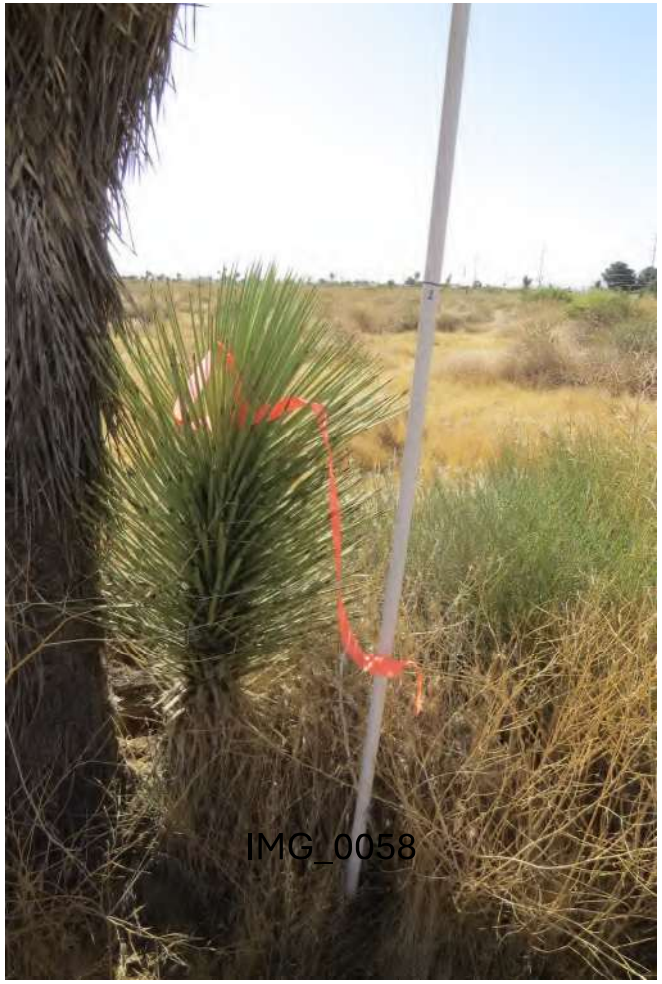
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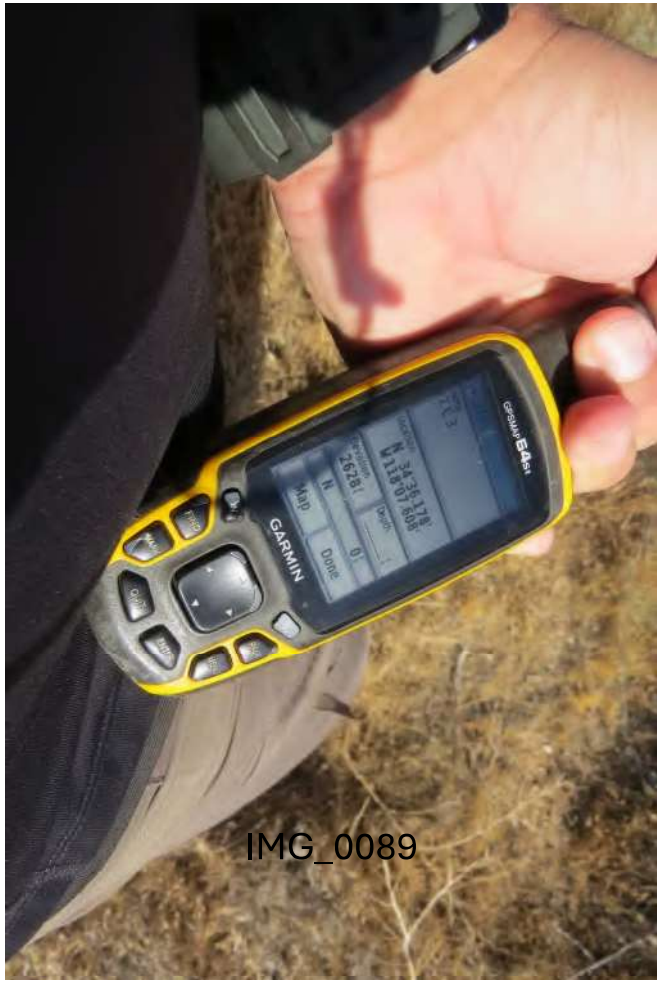
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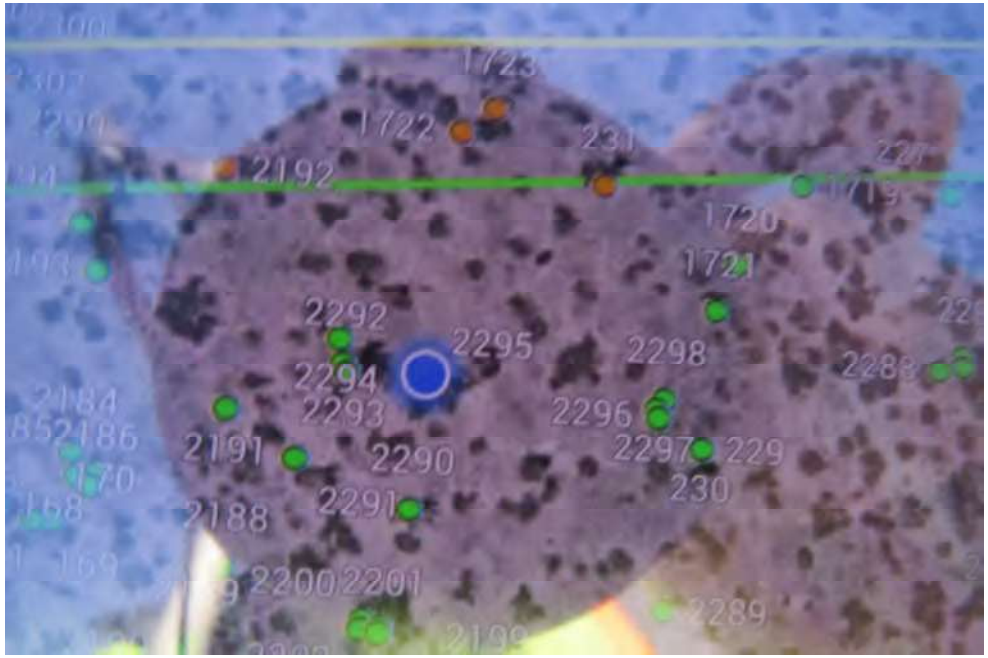
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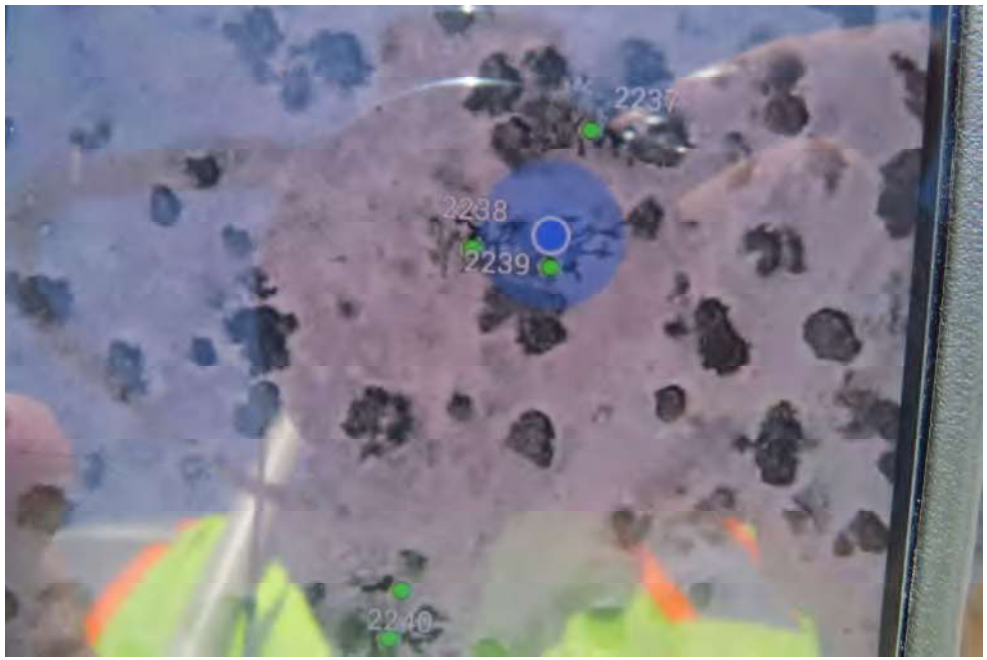
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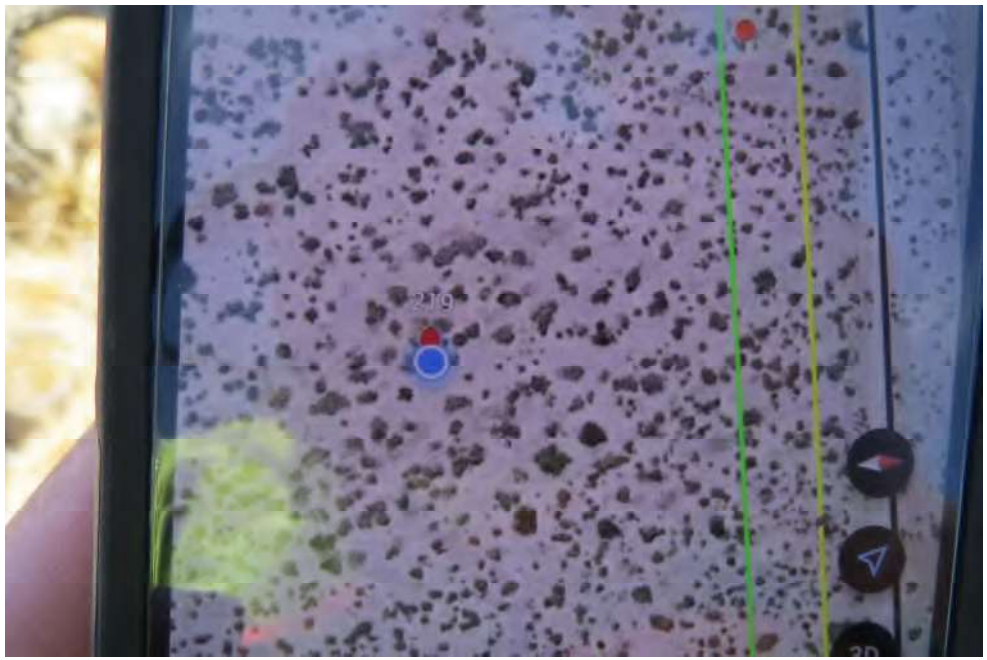
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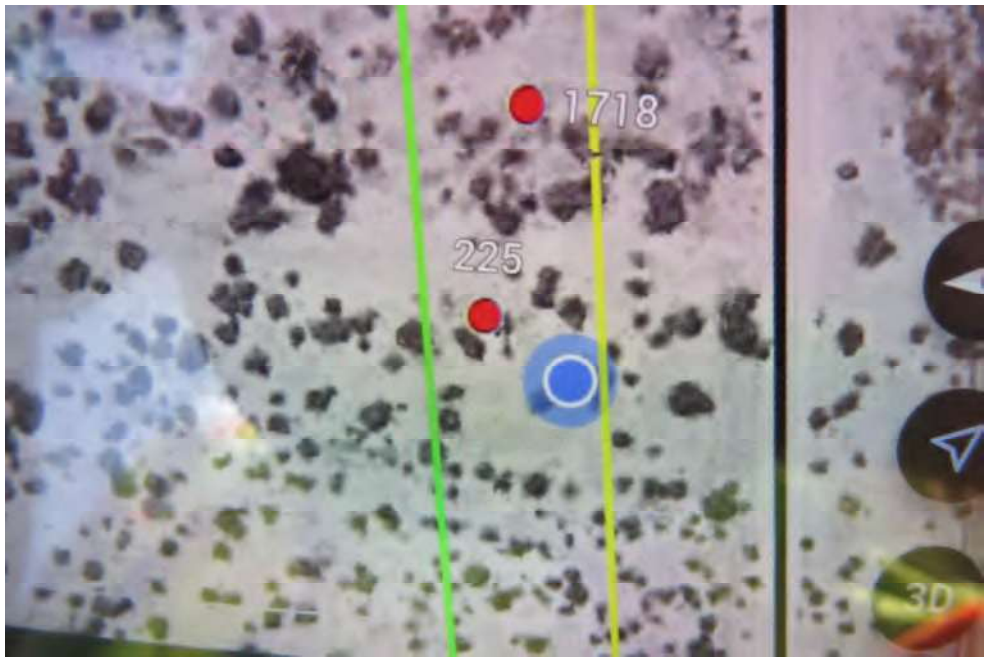
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IMG_0132



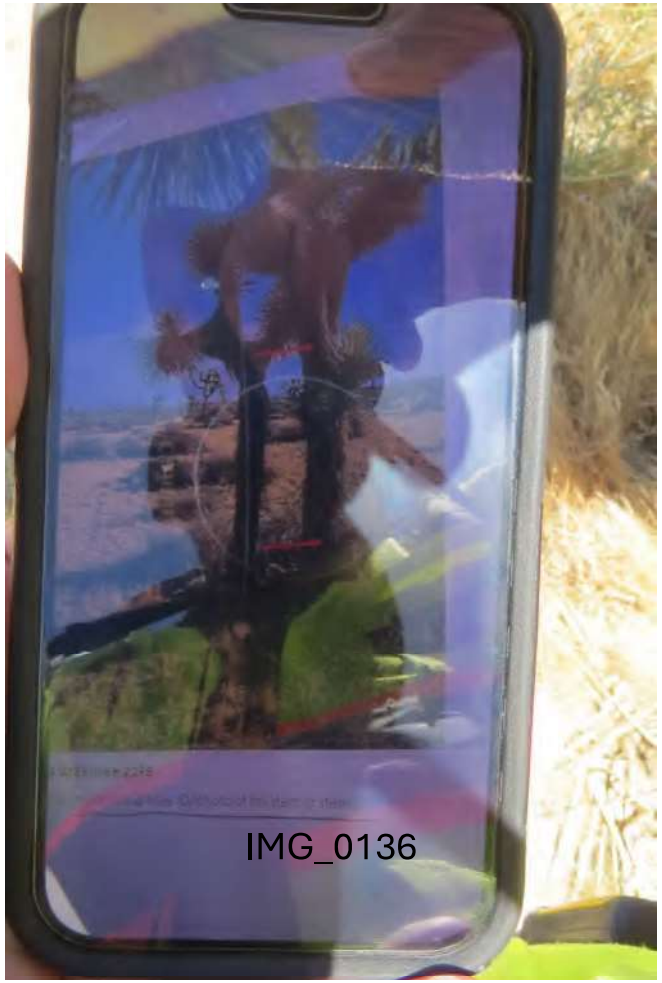
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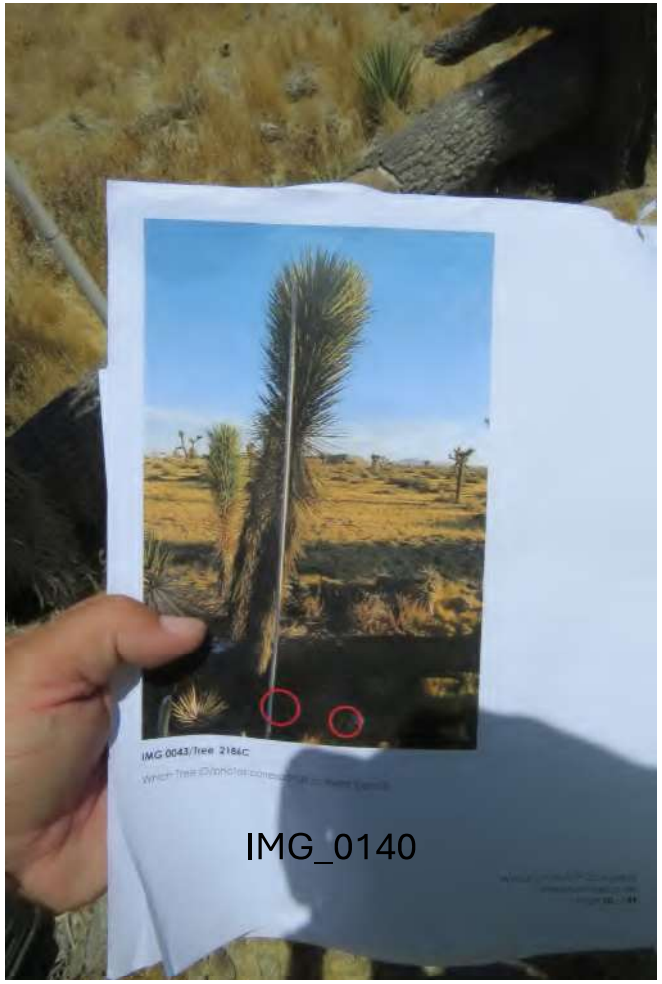
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IMG_0144



IMG_0145

Palmdale 61
Photos collected by Megan E. Peukert (MEP) on May 31, 2024

by Megan Enright



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Palmdale 61
Photos collected by Rachael A. Lyons (RAP) on May 31, 2024

by Megan Enright



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Palmdale 61
Photos collected by Megan E. Peukert (MEP) on June 5, 2024

by Megan Enright



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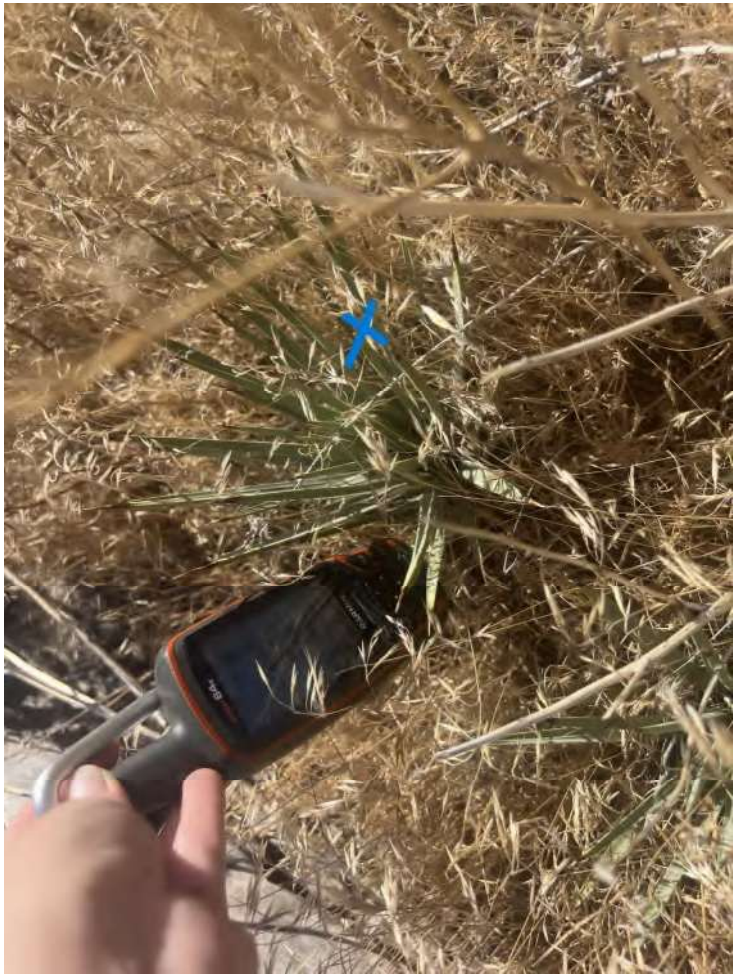
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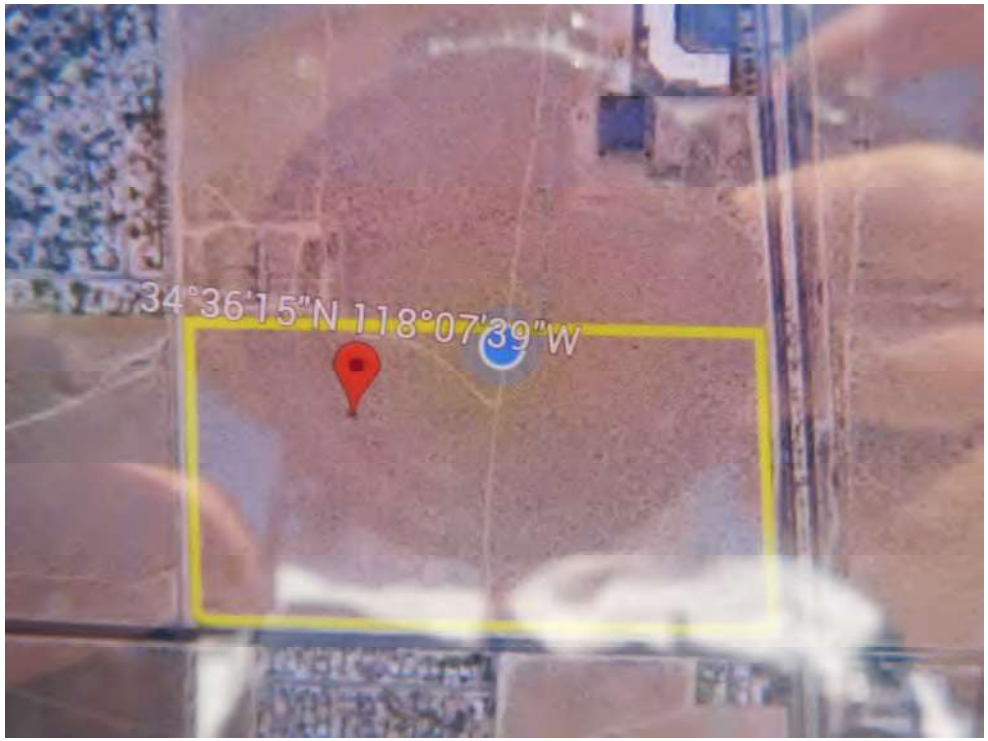
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Palmdale 61
Photos collected by Rachael A. Lyons (RAP) on June 5, 2024

by Megan Enright



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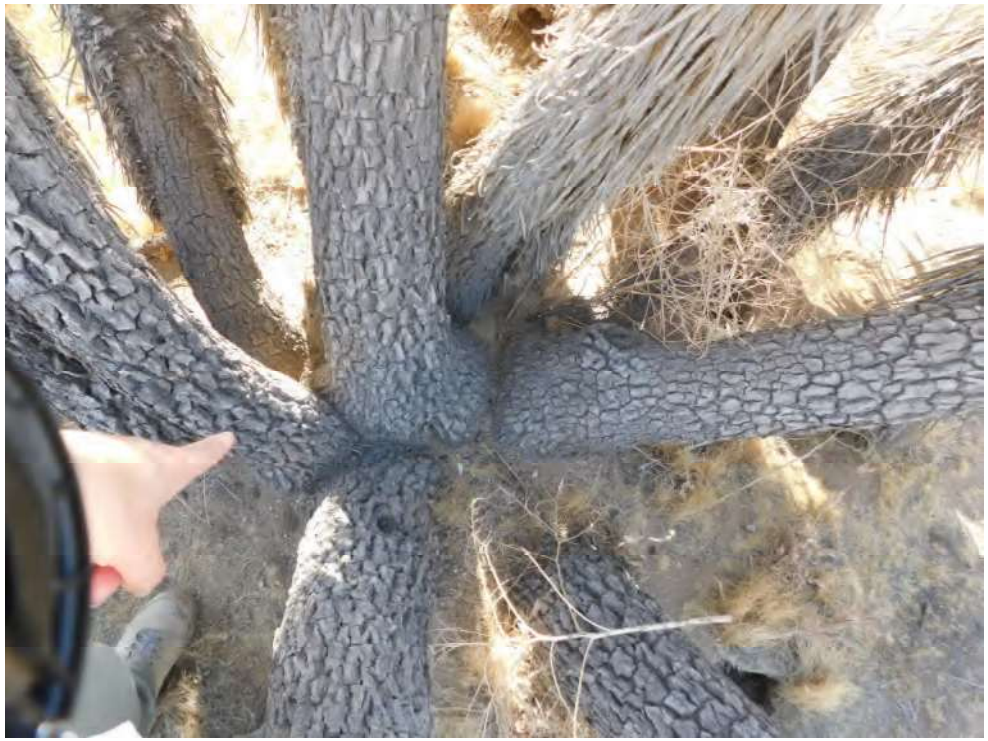
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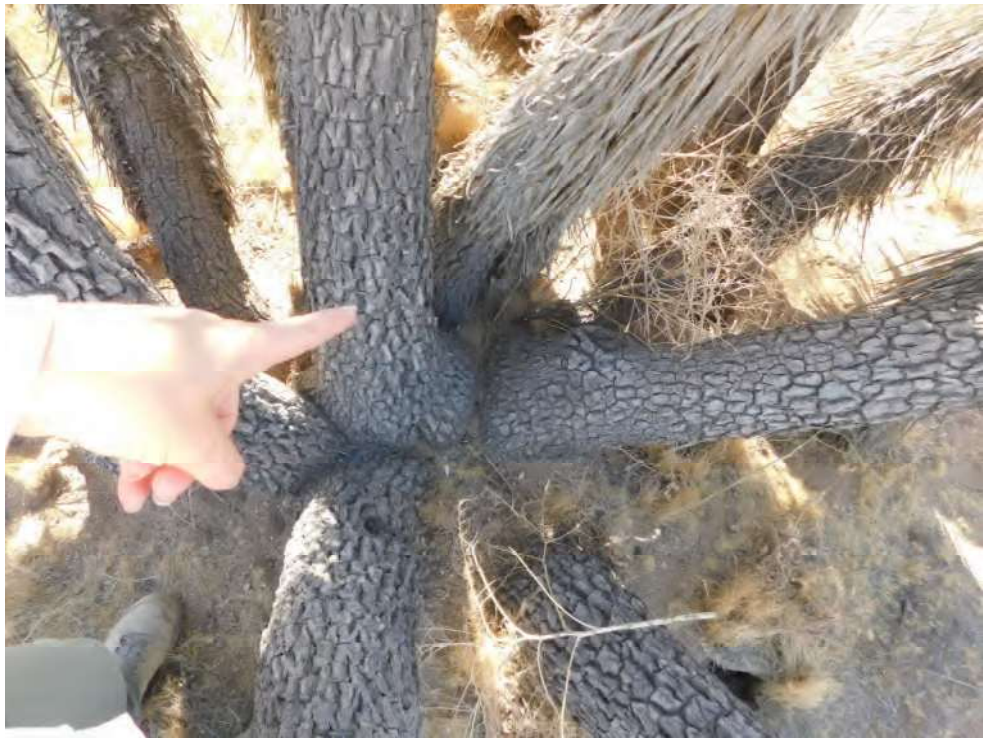
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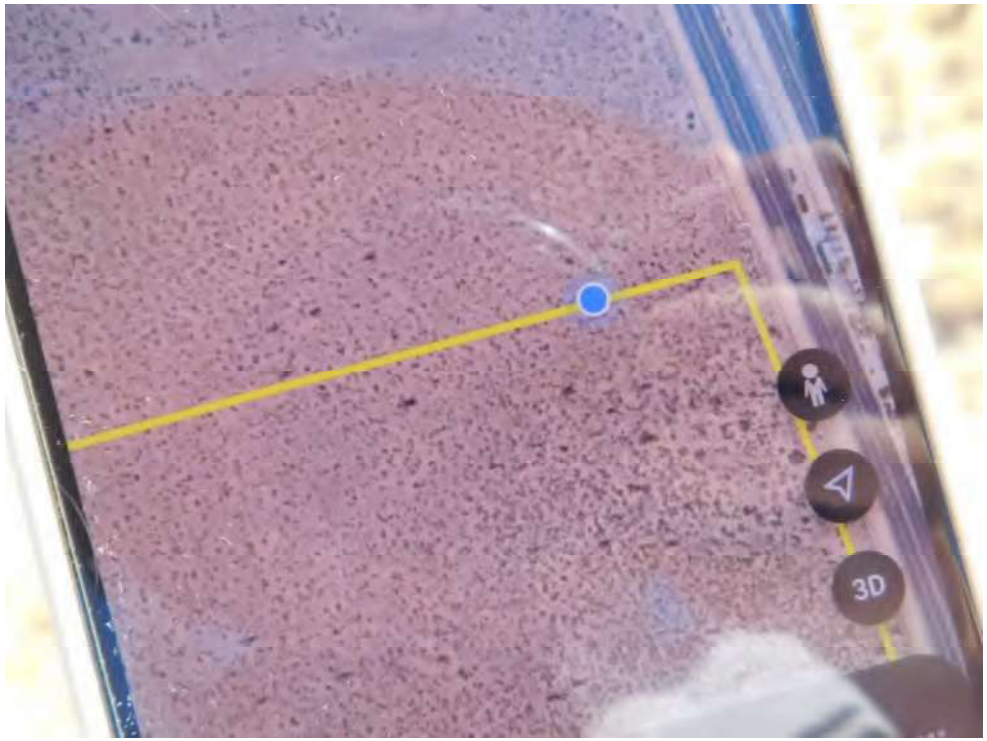
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Appendix F

Assessment of Special-Status Wildlife Species Potential to Occur in the Study Area

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Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Fish				
Catostomus santaanae	Santa Ana sucker	FT/None	Small, shallow, cool, clear streams less than 7 meters (23 feet) in width and a few centimeters to more than a meter (1.5 inches to more than 3 feet) in depth; substrates are generally coarse gravel, rubble, and boulder	Not expected to occur. No suitable aquatic habitat is present.
Gasterosteus aculeatus williamsoni	unarmored threespine stickleback	FE/FP, SE	Slow-moving and backwater areas	Not expected to occur. No suitable aquatic habitat is present.
Gila orcuttii	arroyo chub	None/SSC	Warm, fluctuating streams with slow-moving or backwater sections of warm to cool streams at depths >40 centimeters (16 inches); substrates of sand or mud	Not expected to occur. No suitable aquatic habitat is present.
Oncorhynchus mykiss irideus pop. 10	southern steelhead - southern California DPS	FE/SCE	Clean, clear, cool, well-oxygenated streams; needs relatively deep pools in migration and gravelly substrate to spawn	Not expected to occur. No suitable aquatic habitat is present.
Invertebrates				
Bombus crotchii	Crotch bumble bee	None/SCE	Open grassland and scrub communities supporting suitable floral resources.	Low potential to occur as a transient. Some floral resources are present, but there are no documented occurrences within 5 miles of the study area and the floral resources present would not be expected to support the lifespan of active nests in the region.
Branchinecta lynchi	vernal pool fairy shrimp	FT/None	Vernal pools, seasonally ponded areas within vernal swales, and ephemeral freshwater habitats	Not expected to occur. No vernal pools are present on the study area.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Euphydryas editha quino	quino checkerspot butterfly	FE/None	Annual forblands, grassland, open coastal scrub and chaparral; often soils with cryptogamic crusts and fine-textured clay; host plants include *Plantago erecta*, P. *patagonica*, and *Antirrhinum coulterianum*, among others	Not expected to occur. No suitable is habitat present.
Danaus plexippus plexippus pop. 1	monarch - California overwintering population	FC/None	Wind-protected tree groves with nectar sources and nearby water sources	Not expected to occur. No suitable habitat is present.
Amphibians				
Anaxyrus californicus	arroyo toad	FE/SSC	Semi-arid areas near washes, sandy riverbanks, riparian areas, palm oasis, Joshua tree, mixed chaparral, and sagebrush; stream channels for breeding (typically third order); adjacent stream terraces and uplands for foraging and wintering	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Rana boylii pop. 6	foothill yellow-legged frog - south coast DPS	FPE/SE	Rocky streams and rivers with open banks in forest, chaparral, and woodland	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Rana draytonii	California red-legged frog	FT/SSC	Lowland streams, wetlands, riparian woodlands, livestock ponds; dense, shrubby, or emergent vegetation associated with deep, still, or slow-moving water; uses adjacent uplands	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Rana muscosa	mountain yellow-legged frog	FE/SE, WL	Lakes, ponds, meadow streams, isolated pools, and open riverbanks; rocky canyons in narrow canyons and in chaparral	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Reptiles				
Anniella pulchra	northern California legless lizard	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and sandy or loose, loamy soils	Moderate potential to occur. Suitable soils are present, and there is a documented occurrence approximately 2.5 miles west, from 2010 (CDFW 2024)
Anniella spp.	California legless lizard	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Moderate potential to occur. Suitable soils are present, and there is a documented occurrence approximately 2.5 miles west, from 2010 (CDFW 2024)
Anniella stebbinsi	southern California legless lizard	None/SSC	Coastal dunes, stabilized dunes, beaches, dry washes, valley–foothill, chaparral, and scrubs; pine, oak, and riparian woodlands; associated with sparse vegetation and moist sandy or loose, loamy soils	Not expected to occur. Suitable habitat is not present and there are no nearby documented occurrences.
Arizona elegans occidentalis	California glossy snake	None/SSC	Arid scrub, rocky washes, grasslands, chaparral, open areas with loose soil	Not expected to occur. The study area is outside the range of the species.
Emys marmorata	western pond turtle	None/SSC	Slow-moving permanent or intermittent streams, ponds, small lakes, and reservoirs with emergent basking sites; adjacent uplands used for nesting and during winter	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Gopherus agassizii	desert tortoise	FT/ST	Arid and semi-arid habitats in Mojave and Sonoran Deserts, including sandy or gravelly locations along riverbanks, washes, sandy dunes, canyon bottoms, desert oases, rocky hillsides, creosote flats, and hillsides	Not expected to occur. Due to the site's isolation from known populations of the species and the high volume of automobile traffic surrounding the site, the species presence is not expected.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Phrynosoma blainvillii	Blainville's horned lizard	None/SSC	Open areas of sandy soil in valleys, foothills, and semi-arid mountains including coastal scrub, chaparral, valley–foothill hardwood, conifer, riparian, pine–cypress, juniper, and annual grassland habitats	Moderate potential to occur. Suitable habitat is present and there is a historical documented occurrence on the study area, from 1964. However, the nearest recent occurrence is approximately 5.5 miles west, from 2008 in an area of higher elevation.
Thamnophis hammondii	two-striped gartersnake	None/SSC	Streams, creeks, pools, streams with rocky beds, ponds, lakes, vernal pools	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Birds				
Accipiter cooperii (nesting)	Cooper's hawk	None/WL	Nests and forages in dense stands of live oak, riparian woodlands, or other woodland habitats often near water	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Agelaius tricolor (nesting colony)	tricolored blackbird	BCC/SSC, ST	Nests near freshwater, emergent wetland with cattails or tules, but also in Himalayan blackberry; forages in grasslands, woodland, and agriculture	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Aimophila ruficeps canescens	Southern California rufous-crowned sparrow	None/WL	Nests and forages in open coastal scrub and chaparral with low cover of scattered scrub interspersed with rocky and grassy patches	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Aquila chrysaetos (nesting & wintering)	golden eagle	None/FP, WL	Nests and winters in hilly, open/semi-open areas, including shrublands, grasslands, pastures, riparian areas, mountainous canyon land, open desert rimrock terrain; nests in large trees and on cliffs in open areas and forages in open habitats	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Artemisiospiza belli belli	Bell's sage sparrow	None/WL	Nests and forages in coastal scrub and dry chaparral; typically in large, unfragmented patches dominated by chamise; nests in more dense patches but uses more open habitat in winter	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Athene cunicularia (burrow sites & some wintering sites)	burrowing owl	BCC/CSE	Nests and forages in grassland, open scrub, and agriculture, particularly with ground squirrel burrows	Low potential to occur (transient). Focused surveys for the species were negative for any individuals or diagnostic sign of the species at burrows within the study area (e.g., pellets, whitewash, and feathers). The study area provides marginal habitat for the species, so it is not expected to support breeding burrowing owl. However, the species can be opportunistic in choosing refugia in burrows or other suitable structures during dispersal, wintering, and migration and could be present on site temporarily during those activities.
Buteo regalis (wintering)	ferruginous hawk	None/WL	Winters and forages in open, dry country, grasslands, open fields, agriculture	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Buteo swainsoni (nesting)	Swainson's hawk	None/ST	Nests in open woodland and savanna, riparian, and in isolated large trees; forages in nearby grasslands and agricultural areas such as wheat and alfalfa fields and pasture	Not expected to occur (nesting). While there is Joshua tree present on the study area, no large nests were observed within them. There are no documented occurrences within 5 miles of the study area (CDFW 2024).

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Charadrius montanus (wintering)	mountain plover	BCC/SSC	Winters in shortgrass prairies, plowed fields, open sagebrush, and sandy deserts	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Coccyzus americanus occidentalis (nesting)	western yellow-billed cuckoo	FT/SE	Nests in dense, wide riparian woodlands and forest with well-developed understories	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Elanus leucurus (nesting)	white-tailed kite	None/FP	Nests in woodland, riparian, and individual trees near open lands; forages opportunistically in grassland, meadows, scrubs, agriculture, emergent wetland, savanna, and disturbed lands	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Empidonax traillii extimus (nesting)	southwestern willow flycatcher	FE/SE	Nests in dense riparian habitats along streams, reservoirs, or wetlands; uses variety of riparian and shrubland habitats during migration	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Falco columbarius (wintering)	merlin	None/WL	Forages in semi-open areas, including coastline, grassland, agriculture, savanna, woodland, lakes, and wetlands	Not expected to occur. No suitable habitat is present.
Falco mexicanus (nesting)	prairie falcon	None/WL	Forages in grassland, savanna, rangeland, agriculture, desert scrub, alpine meadows; nest on cliffs or bluffs	Not expected to occur (nesting). No cliffs or bluffs are present on the site. The species could be transient in the study area during foraging and migration.
Gymnogyps californianus	California condor	FE/FP, SE	Nests in rock formations, deep caves, and occasionally in cavities in giant sequoia trees (*Sequoiadendron giganteus*); forages in relatively open habitats where large animal carcasses can be detected	Not expected to occur. No suitable habitat is present.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Lanius ludovicianus (nesting)	loggerhead shrike	None/SSC	Nests and forages in open habitats with scattered shrubs, trees, or other perches	Present. This species was observed onsite during the biological reconnaissance survey. Additionally, the species was documented approximately 1 mile north, in 2008 (CDFW 2025).
Polioptila californica californica	coastal California gnatcatcher	FT/SSC	Nests and forages in various sage scrub communities, often dominated by California sagebrush and buckwheat; generally avoids nesting in areas with a slope of greater than 40%; majority of nesting at less than 1,000 feet above mean sea level	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Riparia riparia (nesting)	bank swallow	None/ST	Nests in riparian, lacustrine, and coastal areas with vertical banks, bluffs, and cliffs with sandy soils; open country and water during migration	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.
Toxostoma lecontei	LeConte's thrasher	BCC/SSC	Nests and forages in desert wash, desert scrub, alkali desert scrub, desert succulent, and Joshua tree habitats; commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground	Low potential to occur. Habitat in the study area is marginal for nesting, so the species would only be expected as a transient.
Vireo bellii pusillus (nesting)	least Bell's vireo	FE/SE	Nests and forages in low, dense riparian thickets along water or along dry parts of intermittent streams; forages in riparian and adjacent shrubland late in nesting season	Not expected to occur. No suitable habitat is present within the study area or the surrounding vicinity.

Scientific Name	Common Name	Status (Federal/State)	Habitat	Potential to Occur
Mammals				
Antrozous pallidus	pallid bat	None/SSC	Grasslands, shrublands, woodlands, forests; most common in open, dry habitats with rocky outcrops for roosting, but also roosts in man-made structures and trees	Not expected to occur. No suitable roosting habitat is present within the study area.
Corynorhinus townsendii	Townsend's big-eared bat	None/SSC	Mesic habitats characterized by coniferous and deciduous forests and riparian habitat, but also xeric areas; roosts in limestone caves and lava tubes, man-made structures, and tunnels	Not expected to occur. No suitable roosting habitat is present within the study area.
Onychomys torridus ramona	southern grasshopper mouse	None/SSC	Grassland and sparse coastal scrub	Not expected to occur. No suitable habitat present.
Spermophilus (Xerospermophilus) mohavensis	Mohave ground squirrel	None/ST	Desert scrub habitats including those dominated by creosote bush and burrobush, desert sink scrub, and desert saltbush scrub	Not expected to occur. Protocol surveys for the species were negative.
Taxidea taxus	American badger	None/SSC	Dry, open, treeless areas; grasslands, coastal scrub, agriculture, and pastures, especially with friable soils	Not expected to occur. Due to the site's isolation from known populations of the species and the high volume of automobile traffic surrounding the site, the species presence is not expected.

Notes:
Status Designations
Federal
FC: Federal candidate for listing
FE: Federally listed as endangered
FT: Federally listed as threatened
BCC: U.S. Fish and Wildlife Service Bird of Conservation Concern
State
SSC: California Species of Special Concern

FP: California Fully Protected species
WL: California Watch List species
SE: State listed as endangered
ST: State listed as threatened
SCE: State candidate for listing

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