L&L ENVIRONMENTAL, INC.
REGULATORY SERVICES
BIOLOGICAL & CULTURAL INVESTIGATIONS & MONITORING

HABITAT ASSESSMENT AND JOSHUA TREE CENSUS
NORTHWEST CORNER OF WEST AVENUE M AND DIVISION STREET
CITY OF LANCASTER, LOS ANGELES COUNTY, CALIFORNIA

±38.78 Acre Project, ±38.78 Acres Surveyed

AINs 3128-013-010 and 3128-013-011, City of Lancaster,
Township 7 North, Range 12 West, Section 34
USGS Lancaster West 7.5' Topographic Quadrangle

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Report Summary:

A reconnaissance-level biological survey, habitat assessment, and Joshua tree census was conducted on a proposed warehouse development in the City of Lancaster. Vegetation is rubber rabbitbrush scrub, creosote bush scrub, and non-native grassland, with scattered Joshua trees. Disturbed/developed areas are also present. Joshua tree is a candidate for state listing and is regulated under the Western Joshua Tree Conservation Act. An incidental take permit from the California Department of Fish and Wildlife and mitigation is required for impacts to Joshua trees. No state or federally listed plant species (other than Joshua tree) were observed during the survey and none have moderate or high potential to occur. No special status plant species were observed but one (crowned muilla) has a moderate potential to occur. Potentially suitable habitat is present for desert tortoise, Mohave ground squirrel, Crotch bumble bee, burrowing owl, desert kit fox, and other special status species. Habitat for nesting birds is present on and adjacent to the site. No regulated desert native plants (other than Joshua tree) were observed during the survey. The site is not located in or near a wildlife corridor. No desert washes/drainages were observed during the survey but evidence of ponding water was present.

Survey Conducted By: Guy Bruyea
Survey Conducted: October 29, 2023
Report Date: November 2023

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MANAGEMENT SUMMARY

L&L Environmental, Inc. (L&L) conducted a reconnaissance-level biological survey on a proposed ±38.78-acre warehouse development project (Project) within the City of Lancaster in Los Angeles County, California for M Avenue LLC. The purpose of this study was to conduct a general habitat assessment and a census of western Joshua trees (*Yucca brevifolia*).

Native vegetation on the site is rubber rabbitbrush scrub, creosote bush scrub, and non-native grassland along with disturbed/developed areas. There are scattered Joshua trees.

The census found 40 Joshua trees on the site. Western Joshua tree is a candidate for listing as threatened under the California Endangered Species Act (CESA) and is regulated under the Western Joshua Tree Conservation Act (WJTCA). Impacts to Joshua trees require an incidental take permit from the California Department of Fish and Wildlife (CDFW) and associated mitigation. The WJTCA created a streamlined incidental take permit process that allows project proponents to pay a standard mitigation fee for each impacted Joshua tree.

No desert native plants regulated under the California Desert Native Plants Act (other than Joshua tree) were found during the survey. Although unlikely, small plants may be missed during a reconnaissance-level survey. A focused botanical survey is recommended. Permitting through the County is required for impacts to regulated desert native plants.

Other than Joshua tree, no state or federally listed threatened or endangered plant species or special status plant species were observed during the survey. However, the survey was done outside of the flowering season for most species. One special status plant species, crowned muilla (*Muilla coronata*), has a moderate potential to occur on the site. A focused botanical survey is recommended.

No state or federally listed threatened or endangered wildlife species were observed during the survey. Based on the reconnaissance survey and available information, state and/or federally listed species (or candidates for listing) Crotch bumble bee (*Bombus crotchii*), desert tortoise (*Gopherus agassizii*), and Mohave ground squirrel (*Xerospermophilus mohavensis*) have a low potential for occurrence. However, due to their status as listed species, focused/protocol surveys are recommended.

There is potentially suitable habitat for burrowing owl (*Athene cunicularia*) on the site. Burrowing owl is a special status species protected under the federal Migratory Bird Treaty Act (MBTA) and the California Fish and Game Code. A protocol survey for burrowing owl is recommended.

There is potential habitat for nesting birds throughout the site and adjacent areas. Nesting birds are protected under the federal MBTA and California Fish and Game Code.

Potentially suitable habitat for desert kit fox (*Vulpes macrotis arsipus*) is present throughout the site. The desert kit fox is protected as a fur-bearing mammal under Title 14 of the California Code of Regulations § 460. A focused survey is recommended.

The Project site likely contributes generally to wildlife movement in the area, but it has no terrestrial connectivity to conserved habitat blocks and is not within a wildlife corridor.

No desert washes (drainages) were observed on the site. However, there is evidence of ponding water (cracked soils) along northern portions of the site. A jurisdictional delineation is recommended to determine if any resources under the jurisdiction of CDFW or the Regional Water Quality Control Board (RWQCB) are present.

1.0) INTRODUCTION

This report was prepared by L&L Environmental, Inc. (L&L) for M Avenue LLC (proponent). It describes the results of a reconnaissance level biological survey, habitat assessment, and Joshua tree census conducted on a proposed warehouse development project (Project) located within the City of Lancaster in Los Angeles County, California.

The Project site consists of Assessor Identification Numbers (AINs) 3128-013-010 and 3128-013-011 with a total area of ±38.78 acres.

The assessment consisted of (1) a records search and literature review, conducted to determine the species of concern in the project area and proximity to closest documented listed and special status species occurrences, (2) a reconnaissance-level field survey to identify plants and wildlife on the site and presence/absence of habitat for species of concern (desert tortoise, Mohave ground squirrel, burrowing owl, desert kit fox, rare plants, and others), (3) mapping of vegetation communities, and (4) a census of western Joshua trees consistent with current CDFW guidance. No focused or protocol surveys were conducted for any plant or wildlife species.

1.1) Project Description

The proposed Project consists of construction of one or two warehouse buildings on the site and associated parking and trailer stalls. The single warehouse alternative also includes a detention basin on the north side of the property. Access is from West Avenue M. Development plans are provided in Appendix F.

1.2) Location

The Project site is located in the City of Lancaster in Los Angeles County, California. The site is on the northwest corner of West Avenue M and Division Street (Figure 1). The site is within Township 7 North, Range 12 West, Section 34 of the U.S. Geological Survey (USGS) Lancaster West 7.5' topographic quadrangle map (Figure 2).

The site is bounded on the north by an unnamed unimproved road, commercial/industrial development, and disturbed vacant land, with West Avenue L beyond; to the east by Division Street (unimproved), commercial development, and Sierra Highway, with commercial/industrial development beyond; to the south by West Avenue M, vacant lands, and scattered commercial development, with West Avenue N beyond; and to the west by an unnamed unimproved road,

undeveloped land, the Antelope Valley Courthouse, and commercial/utility development, with Tenth Street West beyond (Figure 3).

1.3) Vegetation and Setting

Vegetation on the site is rubber rabbitbrush scrub and creosote bush scrub along with non-native grassland. There are scattered Joshua trees. Developed/disturbed areas are present in association with unimproved roads along the northern, western, and eastern side boundaries. Also, utility distribution lines and an associated dirt access road run along the southern boundary of the site just north of West Avenue M. Review of historic aerial images shows that an airfield and associated structures were present on the site in the 1940s. Remnants of a structure and ground disturbance associated with the airfield are still visible on aerials.

Anthropogenic disturbances observed on the site include off-road vehicle use, trash dumping and windblown trash, and dumping of concrete and other debris and materials. An abandoned boat and boat trailer and other debris are present near the northwestern corner of the site. A recreational vehicle was parked near the northwest corner of the site at the time of the survey and appeared to be inhabited. Some areas of the site appear to have been cleared of vegetation in the recent past.

1.4) Soils and Topography

The Project site is relatively flat with elevations ranging from approximately 2,513 feet (766 meters) to approximately 2,527 feet (770 meters) above mean sea level. There is a slight decrease in elevation from south to north.

Soils on the site are mapped as Hesperia fine sandy loam (0 to 2 percent slopes), Rosamond loam, and Cajon loamy sand (0 to 2 percent slopes) (Figure 4). The Hesperia series consists of very deep, well drained soils that formed in alluvium derived primarily from granite and related rocks. These soils have negligible to low runoff and moderately rapid permeability. Hesperia soils are found on alluvial fans, valley plains, and stream terraces (NRCS 2023).

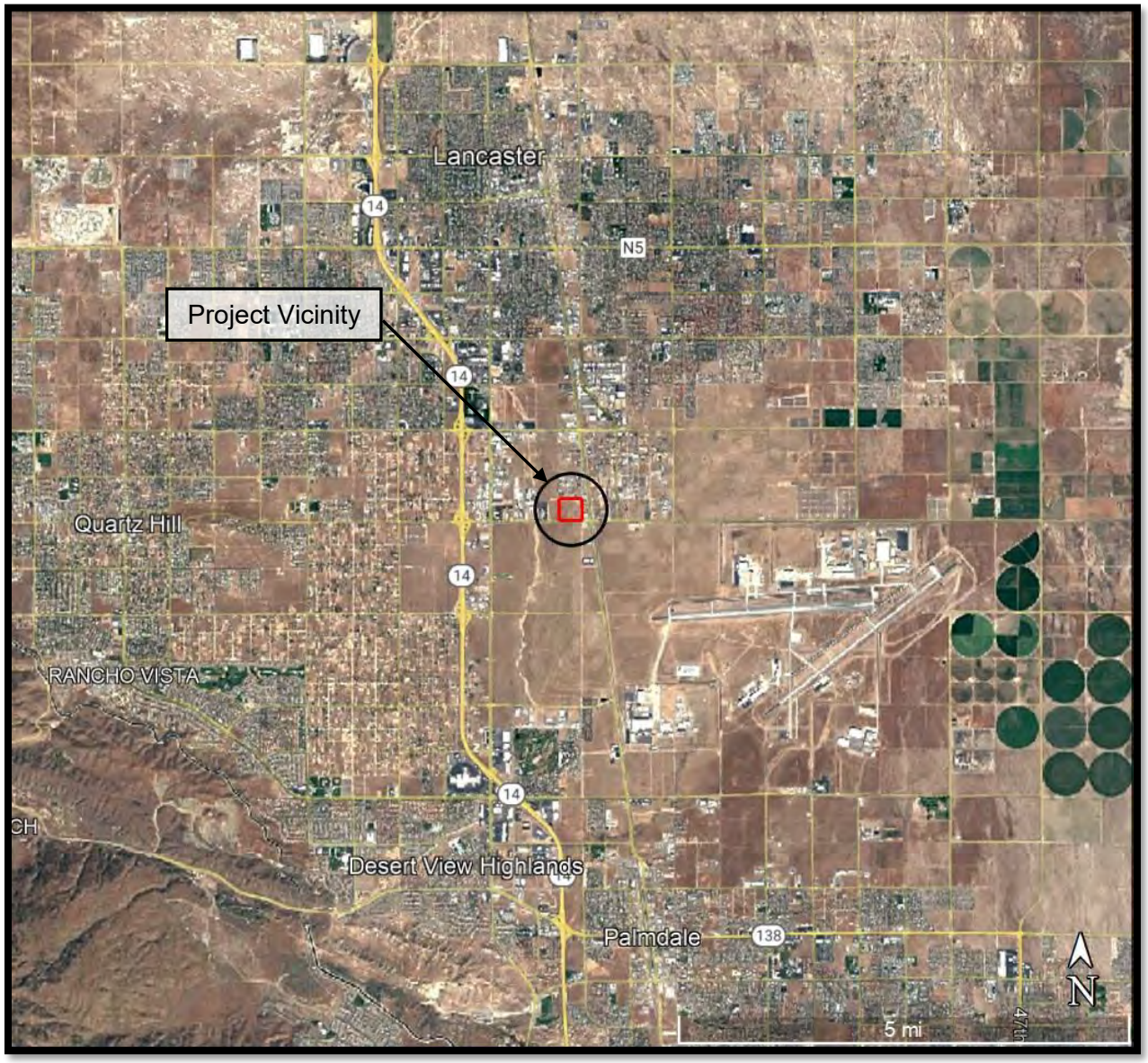
The Rosamond series consists of deep, well drained soils that formed in material weathered mainly from granitic alluvium. These soils have medium runoff and moderate to moderately slow permeability. Rosamond soils are found on the lower margins of alluvial fans (NRCS 2023).

The Cajon series consists of very deep, somewhat excessively drained soils that formed in sandy alluvium from dominantly granitic rocks. These soils have negligible to low runoff and rapid

permeability. Cajon soils are found on alluvial fans, fan aprons, fan skirts, inset fans, and river terraces (NRCS 2023).

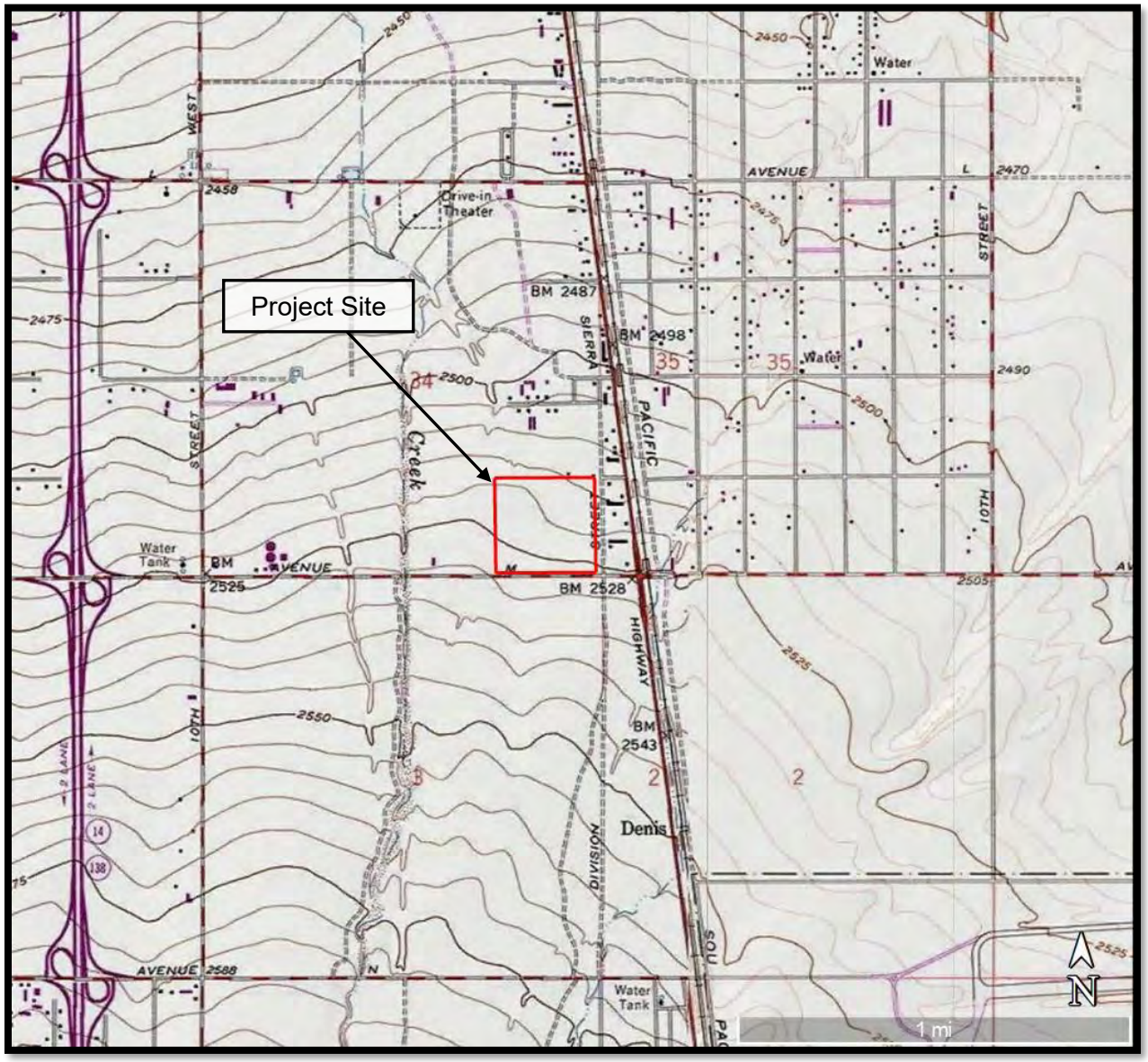
Surface layers of soil have been infiltrated with gravel in the northern portion of the site.

No desert washes (drainages) were observed on the site. There was evidence of ponding water (cracked soils) in the northern portions of the site. A large ephemeral wash and blue line stream identified as Amargosa Creek is present about 0.25 mile to the west of the site.



West Avenue M and Division Street
City of Lancaster, Los Angeles County, California

Project Vicinity
Figure 1



West Avenue M and Division Street
City of Lancaster, Los Angeles County, California

Project Location

Figure 2

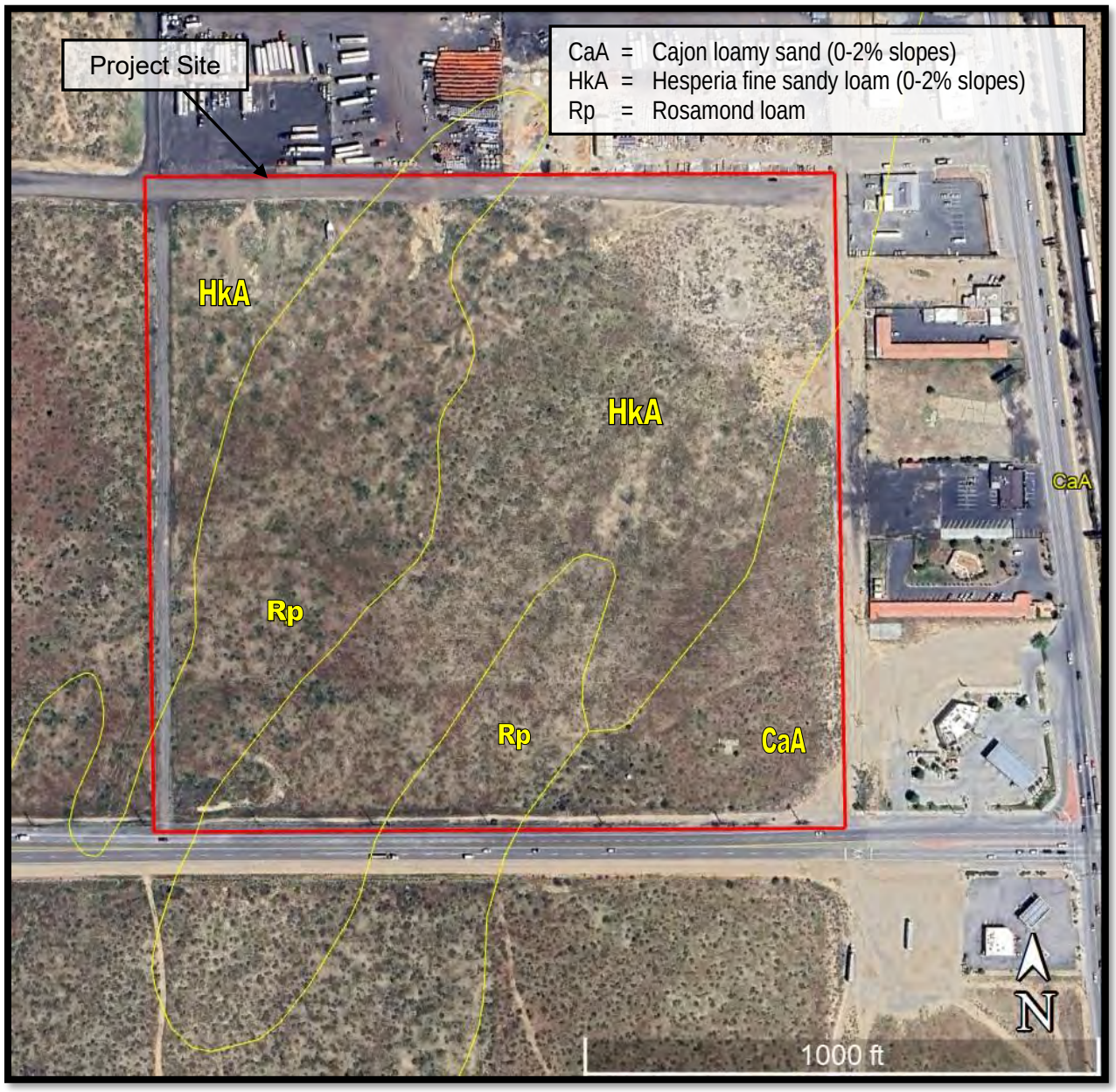
(USGS Lancaster West [2022] quadrangle, Section 34, Township 7 North, Range 12 West)

West Avenue M and Division Street
City of Lancaster, Los Angeles County, California

Aerial Photograph

Figure 3

(Aerial from Google Earth, April 2023)



West Avenue M and Division Street
City of Lancaster, Los Angeles County, California

Soils Map

Figure 4

(Aerial from Google Earth, April 2023; soils data from NRCS [2023])

2.0) REGULATORY ENVIRONMENT

The following summary of the regulatory environment is provided for information purposes and is not intended for review or comment by the lead or wildlife agencies.

2.1) Federal Endangered Species Act

Section 9 of the federal Endangered Species Act (FESA), 1973 (as amended) prohibits "take" of federally listed threatened and endangered species. Candidate species receive no protection under FESA, but the USFWS encourages conservation of these species. "Take" is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or to attempt to engage in any such conduct. "Harm" is further defined to include habitat modification or degradation when it actually kills or injures wildlife by impairing essential behavioral patterns including breeding, feeding, or sheltering.

Incidental take is take that results from, but is not the purpose of, carrying out an otherwise lawful activity. Incidental take of federally listed species may be authorized under Section 7 of FESA for federal properties or where federal actions (i.e., federal permitting or federal funding) are involved or under Section 10 of FESA for non-federal actions.

Section 7 requires all Federal agencies, in "consultation" with the USFWS, to ensure that their actions are not likely to jeopardize the continued existence of listed species or result in destruction or adverse modification of critical habitat. The Section 7 process requires preparation of a federal Biological Assessment to determine whether a proposed major construction activity under the authority of a Federal action agency is likely to adversely affect listed species, proposed species, or designated critical habitat. After formal consultation, the USFWS will issue a Biological Opinion stating whether or not a Federal action is likely to jeopardize the continued existence of listed species or result in the destruction or adverse modification of critical habitat.

Section 10 lays out the guidelines under which a permit may be issued to authorize take of endangered or threatened species (in the absence of any federal nexus). Application for an incidental take permit under Section 10 is subject to certain requirements, including preparation by the permit applicant of a conservation plan, generally known as a Habitat Conservation Plan or HCP. An HCP is a plan that outlines ways of maintaining, enhancing, and protecting a given habitat type needed to protect species. The plan usually includes measures to minimize impacts, such as provisions for permanently protecting land, restoring habitat, and relocating plants or animals to another area.

2.2) Jurisdictional Waters and Wetlands

Three agencies generally regulate activities within streams, wetlands, and riparian areas in California: (1) the U.S. Army Corps of Engineers (USACE) regulates activities under Section 404 of the federal Clean Water Act; (2) the Regional Water Quality Control Board (RWQCB) regulates activities under Section 401 of the federal Clean Water Act and the State Porter-Cologne Water Quality Control Act; and (3) the California Department of Fish and Wildlife (CDFW) regulates activities under California Fish and Game Code Sections 1600-1616.

2.2.1) Federal Clean Water Act Section 404

Section 404 of the federal Clean Water Act (CWA) applies to "Waters of the United States" (WoUS). By definition these include waterways that could be used for interstate commerce and their tributaries, including any waters that flow into traditional navigable waters. In non-tidal waters, the limits of jurisdiction are "ordinary high water marks" (OHWM) such as stream banks. There have been changes to the definition of WoUS based on a recent Supreme Court decision.

2.2.2) Federal Clean Water Act Section 401 and Porter-Cologne

The RWQCB has jurisdiction over wetlands, WoUS, and Waters of the State under Section 401 of the CWA and the Porter-Cologne Water Quality Control Act (Porter-Cologne) under the California Water Code (§ 13000, et seq.) Permitting is required for activities that will result in a discharge of soils, nutrients, chemicals, detrital materials, or other pollutants into WoUS, Waters of the State, or adjacent wetlands that will affect the water quality of those bodies and the watershed.

2.2.3) California Fish and Game Code, Section 1600

The CDFW, through provisions of the California Fish and Game Code (Sections 1600-1616), is empowered to issue agreements (“Lake and Streambed Alteration Agreements”) for projects that will adversely affect wildlife habitat associated with any river, stream, or lake edges. The Lake and Streambed Alteration Agreement will typically include required measures to mitigate impacts.

2.3) California Environmental Quality Act

The California Environmental Quality Act (CEQA) and CEQA Guidelines (§ 15000 et seq.) require identification of environmental effects from discretionary projects. Significant effects are to be mitigated by avoidance, minimization, rectification, or compensation whenever possible.

Effects to all state and federal listed species are considered significant under CEQA. In addition to formally listed species, CEQA considers effects to species that are demonstrably endangered or rare as important or significant. These definitions can include state designated species of special concern, federal candidate and proposed species, California Natural Diversity Database (CNDDB) tracked species, and California Rare Plant Rank (CRPR) 1B and 2 plants.

Appendix G of the CEQA Guidelines specifically addresses biological resources and encompasses a broad range of resources to be considered.

2.4) California Endangered Species Act

California Endangered Species Act (CESA) definitions of endangered and threatened species parallel those defined in the FESA. The CESA defines an endangered species as ". . . a native species or subspecies of a bird, mammal, fish, amphibian, reptile or plant which is in serious danger of becoming extinct throughout all, or a significant portion, of its range due to one or more causes including loss of habitat, change in habitat, over exploitation, predation, competition or disease." Endangered species are in serious danger of becoming extinct and threatened species are likely to become endangered species in the foreseeable future (according to Sections 2062 and 2067, respectively, of the California Fish and Wildlife Code). Candidate species are those under formal review by the CDFW for listing as endangered or threatened (Section 2067). Prior to being considered for protected status, the CDFW designates a species as being of special concern. Species of Special Concern are those for which the CDFW has information indicating population decline.

2.5) California Desert Native Plants Act

The purpose of the California Desert Native Plants Act (CDNPA) is to protect certain species of California desert native plants from unlawful harvesting on both public and privately owned lands. The CDNPA is a state law that 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 valid permit or wood receipt, and the required tags and seals have been obtained. The appropriate permits, tags and seals must be obtained from the sheriff or commissioner of the county where collecting will occur, and the county will charge a fee.

The following native plants, or any parts thereof, may not be harvested except for scientific or educational purposes under a permit issued by the commissioner of the county in which the native plants are growing:

(a) All species of Burseraceae family (elephant tree)
(b) *Carnegiea gigantea* (sahuaro cactus)
(c) *Ferocactus acanthodes* (barrel cactus)
(d) *Castela emoryi* (crucifixion thorn)
(e) *Dudleya saxosa* (panamint dudleya)
(f) *Pinus longaeva* (bristlecone pine)
(g) *Washingtonia filifera* (fan palm)

The following native plants, or any part thereof (except fruits), may not be harvested except under a permit issued by the commissioner or the sheriff of the county in which the native plants are growing:

(a) All species of the family Agavaceae* (century plants, nolinas, yuccas)
(b) All species of the family Cactaceae (cacti)
(c) All species of the family Fouquieriaceae (ocotillo, candlewood)
(d) All species of the genus *Prosopis* (mesquites)
(e) All species of the genus *Cercidium* (palos verdes)
(f) *Acacia greggii* (catclaw)
(g) *Atriplex hymenelytra* (desert-holly)
(h) *Dalea spinosa* (smoke tree)
(i) *Olneya tesota* (desert ironwood), including both dead and live desert ironwood

*Note: Take of Joshua trees is regulated under the Western Joshua Tree Conservation Act, described below.

2.6) Western Joshua Tree Conservation Act

The Western Joshua Tree Conservation Act (WJTCA) was passed in July 2023 to conserve western Joshua tree and its habitat while supporting the state's renewable energy and housing priorities. The WJTCA creates a streamlined permitting framework for certain development activities and collects mitigation fees for the acquisition and conservation of western Joshua tree habitat and other actions to conserve western Joshua Tree.

The WJTCA (Senate Bill 122) was passed by the California Legislature on June 27, 2023. The bill went into effect immediately upon signing by Governor Newsom on July 10, 2023. The WJTCA

directs CDFW to establish a streamlined permitting program that gives an individual or business an option to pay a standard mitigation fee for take of Joshua trees.

In-lieu fees streamline the approach to permitting and will allow permittees to satisfy mitigation obligations by paying a set amount for the take of each individual Joshua tree, based on the tree's height and location. All in-lieu fees collected under the WJTCA will be deposited into the Western Joshua Tree Conservation Fund to be used to address threats to Joshua trees, including through the acquisition, conservation, and management of Joshua tree conservation lands.

Mitigation fees range from $150 to $2,500 per Joshua tree, depending on the tree's height and location (within or outside of the reduced mitigation fee area). An interactive map and additional details are available at https://wildlife.ca.gov/Conservation/Environmental-Review/WJT.

Note that individual municipalities may enact ordinances with more stringent requirements than the WJTCA.

2.7) California Natural Diversity Database

The California Natural Diversity Database (CNDDB) is a database that ranks overall condition of listed and special status species and sensitive vegetation communities on global (throughout its range) and state (within California) levels. The CNDDB includes documented occurrences of listed and special status species that have been reported to CDFW. State ranking is numerical, ranging from one to five (S1 to S5), with one indicating very few remaining individuals or little remaining habitat and five indicating a demonstrably secure to ineradicable population condition.

2.8) California Rare Plant Rank

The California Native Plant Society (CNPS) Inventory of Rare and Endangered Species includes documented occurrences of special status plant species that are available through the Consortium of California Herbaria and other sources. The CNPS, in coordination with CDFW, has cataloged California's rare and endangered plants into lists according to population distributions and viability. These lists are numbered and indicate the following California Rare Plant Ranks (CRPR): (1A) presumed extinct in California; (1B) rare, threatened, or endangered throughout their range; (2A) presumed extirpated in California, but more common in other states; (2B) threatened or endangered in California, but more common in other states; (3) more information is needed to establish rarity; and (4) plants of limited distribution in California (i.e., naturally rare in the wild), but whose populations do not appear to be susceptible to threat. A

CRPR may also have an extension (e.g., 1B.x) that indicates current level of threat: seriously threatened (x.1), moderately threatened (x.2), or not very threatened (x.3).

2.9) Information for Planning and Consultation

The U.S. Fish and Wildlife Service (USFWS) Information for Planning and Consultation (IPaC) is a database that includes federally listed endangered or threatened species and species proposed for listing, designated critical habitat, Birds of Conservation Concern, and other federally regulated lands and biological resources.

2.10) Migratory Bird Treaty Act

The federal Migratory Bird Treaty Act (MBTA) of 1918 (16 USC 703-711) is an international treaty that made it unlawful to take, possess, buy, sell, purchase, or barter any migratory bird listed in 50 CFR Part 10, including feathers or other parts, nests, eggs, or products, except as allowed by implementing regulations (50 CFR 21). Executive Order 13186 ensures that environmental analyses of federal actions required by the National Environmental Policy Act (NEPA) or other established environmental review processes evaluate the effects of actions on migratory birds, with emphasis on species of concern. Disturbance that causes nest abandonment and/or loss of reproductive effort (e.g., killing or abandonment of eggs or young) or loss of habitat upon which the birds depend could be considered “take” and constitute a violation of the MBTA.

2.11) Bald and Golden Eagle Protection Act

The Bald and Golden Eagle Protection Act (BGEPA) provides for the protection of the bald eagle and the golden eagle by prohibiting the take, possession, sale, purchase, barter, offer to sell, purchase or barter, transport, export or import, of any bald or golden eagle, alive or dead, including any part, nest, or egg, unless allowed by permit (16 U.S.C. 668(a); 50 CFR 22). "Take" includes to pursue, shoot, shoot at, poison, wound, kill, capture, trap, collect, molest or disturb. “Disturb” means to agitate or bother a bald or golden eagle to a degree that causes, or is likely to cause injury to an eagle, a decrease in its productivity by substantially interfering with normal breeding, feeding, or sheltering behavior, or nest abandonment.

2.12) California Fish and Game Code, Sections 3503 and 3513

California Fish and Game Code Section 3503 prohibits take, possession, or needless destruction of bird nests or eggs except as otherwise provided by the Code; Section 3503.5 prohibits take or

possession of birds of prey or their eggs except as otherwise provided by the Code and Section 3513 provides for the adoption of the provisions of the federal Migratory Bird Treaty Act, described above.

2.13) California Code of Regulations Title 14 Section 460

Title 14 of the California Code of Regulations addresses natural resources and includes mammal hunting regulations. Section 460 of Title 14 states that, "Fisher, marten, river otter, desert kit fox and red fox may not be taken at any time."

2.14) City of Lancaster General Plan 2030

The City of Lancaster General Plan 2030 (Lancaster 2009) includes a Plan for the Natural Environment, which is aimed at balancing demands for new urban and rural development within Lancaster with the desire of residents to protect natural resources and retain the open character of the area.

The Biological Resources section of the Plan for the Natural Environment includes the following objective and policies:

Objective 3.4: Identify, preserve and maintain important biological systems within the Lancaster sphere of influence, and educate the general public about these resources, which include the Joshua Tree - California Juniper Woodlands, areas that support endangered or sensitive species, and other natural areas of regional significance.

> Policy 3.4.1: Ensure the comprehensive management of programs for significant biological resources that remain within the Lancaster sphere of influence.
>
> Policy 3.4.2: Preserve significant desert wash areas to protect sensitive species that utilize these habitat areas.
>
> Policy 3.4.3: Encourage the protection of open space lands in and around the Poppy Preserve, Ripley Woodland Preserve and other sensitive areas to preserve habitat for sensitive mammals, reptiles, and birds, including raptors.
>
> Policy 3.4.4: Ensure that development proposals, including City sponsored projects, are analyzed for short- and long-term impacts to biological resources and that appropriate mitigation measures are implemented.

Policy 3.4.5: Encourage educational programs that: promote awareness of local biological resources; inform about potential protection and preservation programs; foster community attitudes and behaviors that protect local plants and wildlife; encourage community involvement in protection programs.

3.0) METHODS AND PERSONNEL

3.1) Literature Review

Certain plants and animals have been listed as threatened or endangered under state or federal Endangered Species Acts. Other species have not been formally listed, but declining populations or habitat availability are reasons for concern regarding their long-term viability. These species are included in lists compiled by resource management agencies or private conservation organizations. In this report, the term "listed species" refers to all species that are listed or candidates for listing under the state or federal Endangered Species Acts. "Special status species" refers to all species that are not listed under either state or federal Endangered Species Acts but are included in one or more compendia or formal lists of rare species.

For the purposes of this report, the 'Project site' or 'site' refers to the entire ±38.78-acre property. The survey area included the entire ±38.78 acres; no offsite areas were identified and none were included. In this report, 'Joshua tree' refers to the western Joshua tree (*Yucca brevifolia*) unless specifically stated otherwise.

Pertinent literature was reviewed to identify local occurrences and habitat requirements of special status species and communities occurring in the region. Literature reviewed included compendia provided by resource agencies (CDFW 2023a, 2023b) and a search of the California Natural Diversity Database (CNDDB; CDFW 2023c) and the California Native Plant Society Inventory of Rare and Endangered Plants (CNPS 2023) for the Lancaster West USGS topographic quadrangle (quad) and adjacent quads (Little Buttes, Rosamond, Rosamond Lake, Del Sur, Lancaster East, Sleepy Valley, Ritter Ridge, and Palmdale). A search of the Information for Planning and Consultation database (IPAC; USFWS 2023a) was also conducted for the Project site.

Potentials for occurrence of plant and wildlife species were evaluated and classified as either absent, not expected, low, moderate, high, or occurs. These classifications are based on the presence and quality of habitat, geographic and elevation range of species, proximity to a known occurrence of a species obtained from CNDDB or other reliable data, and field observations. Classifications for individual species may be modified based on biologists' experience and expert opinion. Classifications are based on available information and the results of a reconnaissance-level biological survey. These may be revised based on the results of future additional or focused/protocol surveys.

Scientific names of plants follow Baldwin et al. (2012) with updates from the online Jepson eFlora (Jepson 2023). Scientific names of animals follow Stebbins (1985), Jameson and Peeters (1988),

Cornell (2023), Sibley (2000), and Arnett (2000) with updates from academic sources. Current conservation status of plant and wildlife species determined from CDFW (2023a, 2023b). Vegetation community classifications follow Sawyer et al. (2009) with updates from CDFW (2023d). State ranks (S ranks) for vegetation communities are from CDFW (2023d).

3.2) Biological Survey Methods

Biological surveys conducted in 2023 consisted of a reconnaissance-level field survey to identify plants and wildlife on the site and presence/absence of habitat for species of concern (desert tortoise, Mohave ground squirrel, burrowing owl, desert kit fox, rare plants, and others). All Joshua trees on the site and within a 50-foot survey buffer were mapped and measured in accordance with current CDFW guidance. No focused or protocol surveys were conducted.

The survey was conducted from 1100 to 1530 hours on October 29, 2023 by L&L biologist Guy Bruyea. The weather was clear with temperatures from 59 to 68ºF and winds from 6 to 14 miles per hour.

The site was surveyed by conducting a series of transects across the property, stopping periodically for observations and notations. Transects were close enough to allow for 100 percent visual coverage and were no more than 10 meters apart. A general habitat map and field notes were completed at the time of the survey. All field surveys were conducted during daylight hours. Digital photographs were taken to record conditions on the site.

All plant and wildlife species observed during surveys were recorded. The locations of listed and special status species observed (if any) were documented using GPS. Plants of uncertain identity were collected and subsequently identified from keys, descriptions, and illustrations in Baldwin (2012), Abrams (1923, 1944, 1951), Abrams and Ferris (1960), Munz (1974), and Parker et al. (1999).

Vegetation community mapping of the site was also conducted. Available vegetation mapping for the Mojave Desert (CDFW 2014) was utilized as a basis and verified and refined through field observations. Vegetation communities correspond to the California Natural Community List (CDFW 2023d) and Sawyer et al. (2009).

3.2.1) Joshua Tree Census Methods

A census of Joshua trees was conducted concurrently with the biological surveys described above. Census methods followed the latest CDFW guidance (CDFW 2023f), available at

https://wildlife.ca.gov/Conservation/Environmental-Review/WJT/Permitting/Census-Instructions. As required, the census was conducted on the entire site and a surrounding 50-foot buffer (Figure 5).

Each Joshua tree was assigned a unique number but was not tagged. Each Joshua tree stem or trunk arising from the ground was measured and recorded as a separate individual even if was a clone of another Joshua tree. The census included both live and dead Joshua trees. The height of each tree was measured from the middle of the base of the trunk to the top of the leaf furthest away from the base. Height in meters was recorded to the nearest tenth of a meter and each tree was assigned a size class as follows:

- Size Class A - less than one meter in height
- Size Class B - one meter or greater but less than five meters in height
- Size Class C - five meters or greater in height

Photographs were taken of each Joshua tree and the following data was recorded: tree identification number, latitude and longitude, live/dead, height, if the tree was mature (branched), and if the tree was in the flowering or fruiting stage.

West Avenue M and Division Street
City of Lancaster, Los Angeles County, California

Joshua Tree Survey Area

Figure 5

(Aerial from Google Earth, April 2023)

4.0) RESULTS

4.1) Vegetation Communities

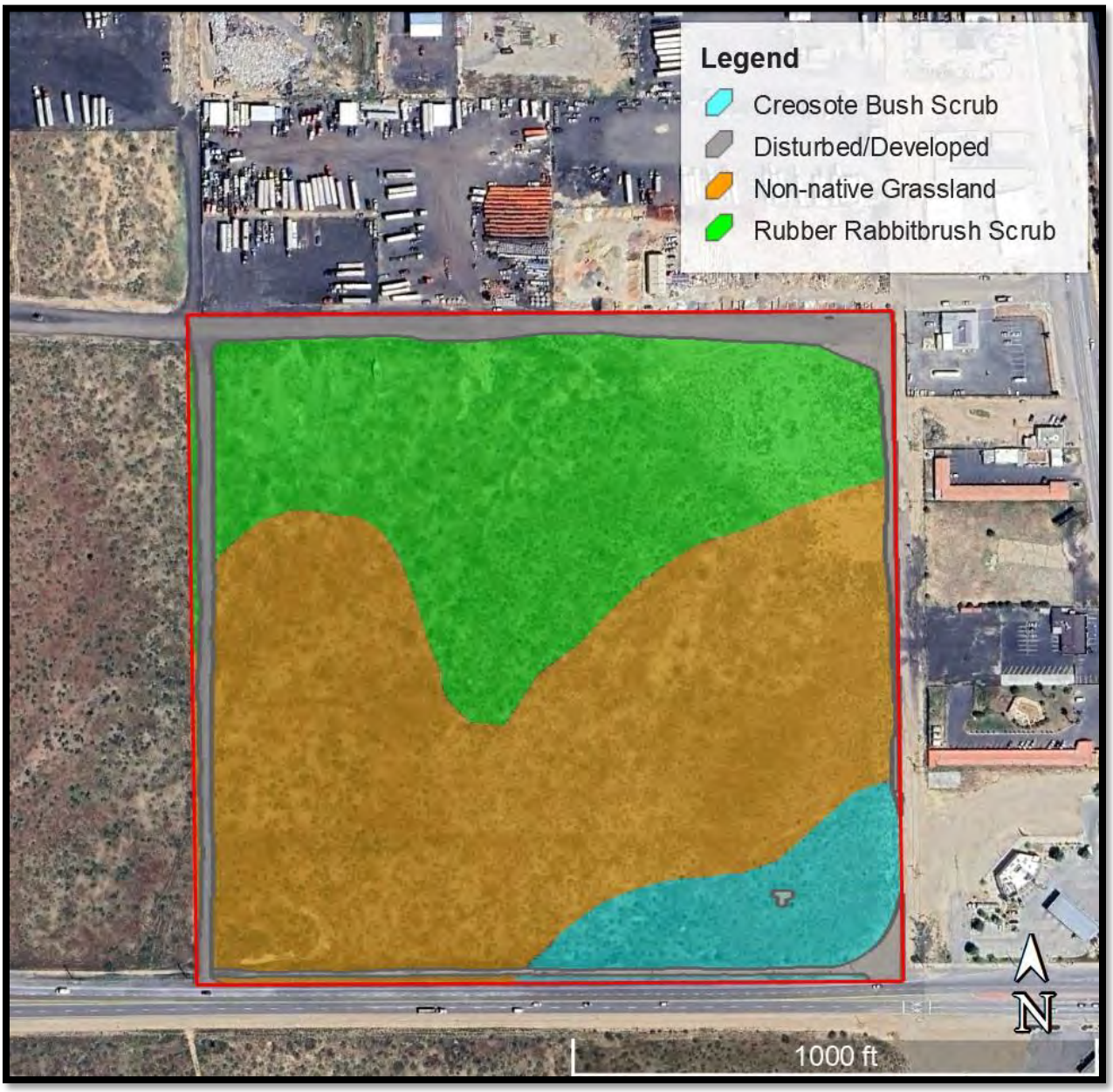
Vegetation within the Project consists of rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance) and creosote bush scrub (*Larrea tridentata* Shrubland Alliance) along with non-native grassland and developed/disturbed areas. Scattered Joshua trees are present. Vegetation communities are mapped in Figure 6 and acreages of each vegetation community are provided in Table 1. Representative photos are included in Appendix C.

Sawyer et al. (2009) classifies an area as Joshua tree woodland (*Yucca brevifolia* Woodland Alliance) if Joshua trees are evenly distributed at greater than or equal to one (1) percent cover. The Joshua trees on the site are not evenly distributed and do not have sufficient cover to classify the habitat as Joshua tree woodland under a strict interpretation of that definition. However, because of the presence of Joshua trees, the vegetation on the site could be interpreted as Joshua tree woodland with an understory of other vegetation communities. CDFW ranks Joshua tree woodland as S3 (vulnerable to extirpation) and it is considered a sensitive vegetation community.

Based on available mapping (Data Basin 2023), there are no sand or dune systems on or near the Project site. The Project site is not within any mapped aeolian sand transport corridor (Muhs et al. 2003).

Table 1. Vegetation Communities Present

Vegetation Community and Classification	Area Present (acres)
Rubber Rabbitbrush Scrub	13.01
Creosote Bush Scrub	3.15
Non-native Grassland	19.51
Disturbed/Developed	3.11
Total	38.78



West Avenue M and Division Street
City of Lancaster, Los Angeles County, California

Vegetation Communities

Figure 6

(Aerial from Google Earth, April 2023; vegetation mapping from CDFW [2014])

4.1.1) Rubber Rabbitbrush Scrub

Rubber rabbitbrush scrub (*Ericameria nauseosa* Shrubland Alliance) is characterized by rubber rabbitbrush (*Ericameria nauseosa*) dominant or codominant in the shrub canopy. The shrub canopy is open to continuous with a sparse or grassy herbaceous layer. This vegetation community is generally found at elevations from sea level to 10,500 feet (0 to 3,200 meters) on many types of topography, especially in disturbed areas. Soils are well-drained sands and gravels (Sawyer et al. 2009).

Rubber rabbitbrush scrub occurs on the northern portion of the Project site. Scattered Joshua trees are present in this vegetation community. Other desert native perennials observed include buckwheat (*Eriogonum species*), and Nevada ephedra (*Ephedra nevadensis*). The understory includes non-native ripgut brome (*Bromus diandrus*), Mediterranean grass (*Schismus barbatus*), Sahara mustard (*Brassica tournefortii*), and redstem filaree (*Erodium cicutarium*).

CDFW ranks rubber rabbitbrush scrub as S5 (secure – common, widespread, and abundant) and it is not considered a sensitive vegetation community.

4.1.2) Creosote Bush Scrub

This vegetation community is best described as creosote bush scrub (*Larrea tridentata* Shrubland Alliance). Creosote bush scrub is characterized by creosote bush dominant or codominant with other desert shrubs such as Nevada ephedra and Anderson's boxthorn (*Lycium andersonii*) in the shrub canopy. The shrub canopy is intermittent to open. The herbaceous layer is open to intermittent and composed of seasonal annuals or grasses. This vegetation community is generally found at elevations from about 250 to 3,300 feet (75 to 1,000 meters) on alluvial fans, upland slopes, and minor intermittent washes. Soils are well-drained, sometimes with desert pavement (Sawyer et al. 2009).

Creosote bush scrub occurs on the southeastern corner of the Project site. Scattered Joshua trees are present in this vegetation community. Other desert native perennials observed include rubber rabbitbrush, Anderson's boxthorn, spiny hop sage (*Grayia spinosa*), and Nevada ephedra. The understory includes non-native ripgut brome, Mediterranean grass, Sahara mustard, and redstem filaree.

CDFW ranks creosote bush scrub as S5 (secure – common, widespread, and abundant) and it is not considered a sensitive vegetation community.

Note that this area is mapped as Nevada joint fir – Anderson's boxthorn – spiny hop sage scrub (*Ephedra nevadensis – Lycium andersonii – Grayia spinosa* Shrubland Alliance) by CDFW (2014). CDFW ranks this vegetation community as S3S4 (apparently secure to vulnerable) and it may be considered a sensitive vegetation community. However, the field survey found that creosote bush is the dominant species. Nevada ephedra (also known as Nevada joint fir), Anderson's boxthorn, and spiny hop sage are present but in very low quantities and are not the dominant or co-dominant species. Based on the field survey, this area is most accurately described as creosote bush scrub.

4.1.3) Non-native Grassland

Non-native grassland is dominated by non-native grass species, and may include some native forbs and grasses. The most commonly observed non-native grasses on the site are Mediterranean grass and ripgut brome. This vegetation community is best described as brome or Mediterranean grass grasslands (*Bromus* species – *Schismus barbatus* Semi-Natural Herbaceous Stands).

Other plants observed in this vegetation community are non-natives such as redstem filaree, Sahara mustard, tumble mustard (*Sisymbrium altissimum*), and tumbling pigweed (*Amaranthus albus*). Some native species were also present including large-flower rancher's fiddleneck (*Amsinckia intermedia*), annual bur-sage (*Ambrosia acanthicarpa*) and common phacelia (*Phacelia distans*). No Joshua trees are present in this vegetation community.

CDFW does not rank non-native vegetation communities and non-native grassland is not considered sensitive.

4.1.4) Disturbed/Developed

Disturbed/developed areas are present on the site in association with unimproved roads, utility lines, and remnants of a structure.

4.2) Plant Species

A total of 24 plant species were observed onsite during the survey. The survey was conducted outside of the flowering season for most plants. Other plant species may be present and were not detected due to the timing of the survey. Of the 24 plant species observed, 11 (46 percent) are non-native. A list of all plant species observed is included in Appendix A.

Western Joshua tree is present on the site and is a candidate for state listing, as described below. Impacts to Joshua trees require incidental take permitting through CDFW and associated mitigation.

No state or federally listed plant species (other than Joshua tree) were observed during the survey and none have moderate or high potential to occur (see Appendix B). The Project site is not within designated critical habitat for any federally listed plant species (USFWS 2023b).

No special status plants were observed during the survey. One special status plant species, crowned muilla, has a moderate potential to occur, and is described below.

4.2.1) Listed Plant Species

Western Joshua Tree

Western Joshua tree (*Yucca brevifolia*) is an evergreen tree-like plant in the Agavaceae (Agave) family. It is found on flats and slopes in the Mojave Desert in California and Nevada at elevations from 1,900 to 7,200 feet. The range of a similar species, the eastern Joshua tree (*Yucca jaegeriana*), is found generally further east, extending into Arizona and Utah (USFWS 2018). In this report, 'Joshua tree' refers to the western Joshua tree unless specifically stated otherwise.

The western Joshua tree was considered for listing under the Federal Endangered Species Act in 2019. The U.S. Fish and Wildlife Service (USFWS) conducted a 12-month species status review of Joshua tree and issued a finding on August 15, 2019 that the species does not warrant federal listing (USFWS 2019b).

On September 22, 2020, the western Joshua tree became a candidate for listing as threatened under the California Endangered Species Act (CESA). Under CESA, a candidate species is provided the same protections as a listed species.

The Western Joshua Tree Conservation Act (WJTCA) was enacted in July 2023 (see Section 2.6). The WJTCA gives an individual or business the option to pay a standard mitigation fee for impacts to Joshua trees. Mitigation is required for every individual Joshua tree stem arising out of the ground, even if it is a clone. Clones are stems arising from the root system or underground stems (rhizomes) of a Joshua tree. A single Joshua tree may have multiple clones, typically growing in a tight cluster. Under the CDFW guidance, each clone is measured and mitigated as if it is an individual Joshua tree.

In most of California, mitigation fees are $2,500 for each Joshua tree 5 meters (16.4 feet) or greater in height, $500 for each tree 1 meter (3.3 feet) or greater but less than 5 meters in height, and $340 for each tree less than 1 meter in height. An area with reduced mitigation fees has been established in portions of the high desert (including the Project site). Mitigation fees in this area are $1,000 for each Joshua tree 5 meters or greater in height, $200 for each tree 1 meter or greater but less than 5 meters in height, and $150 for each tree less than 1 meter in height.

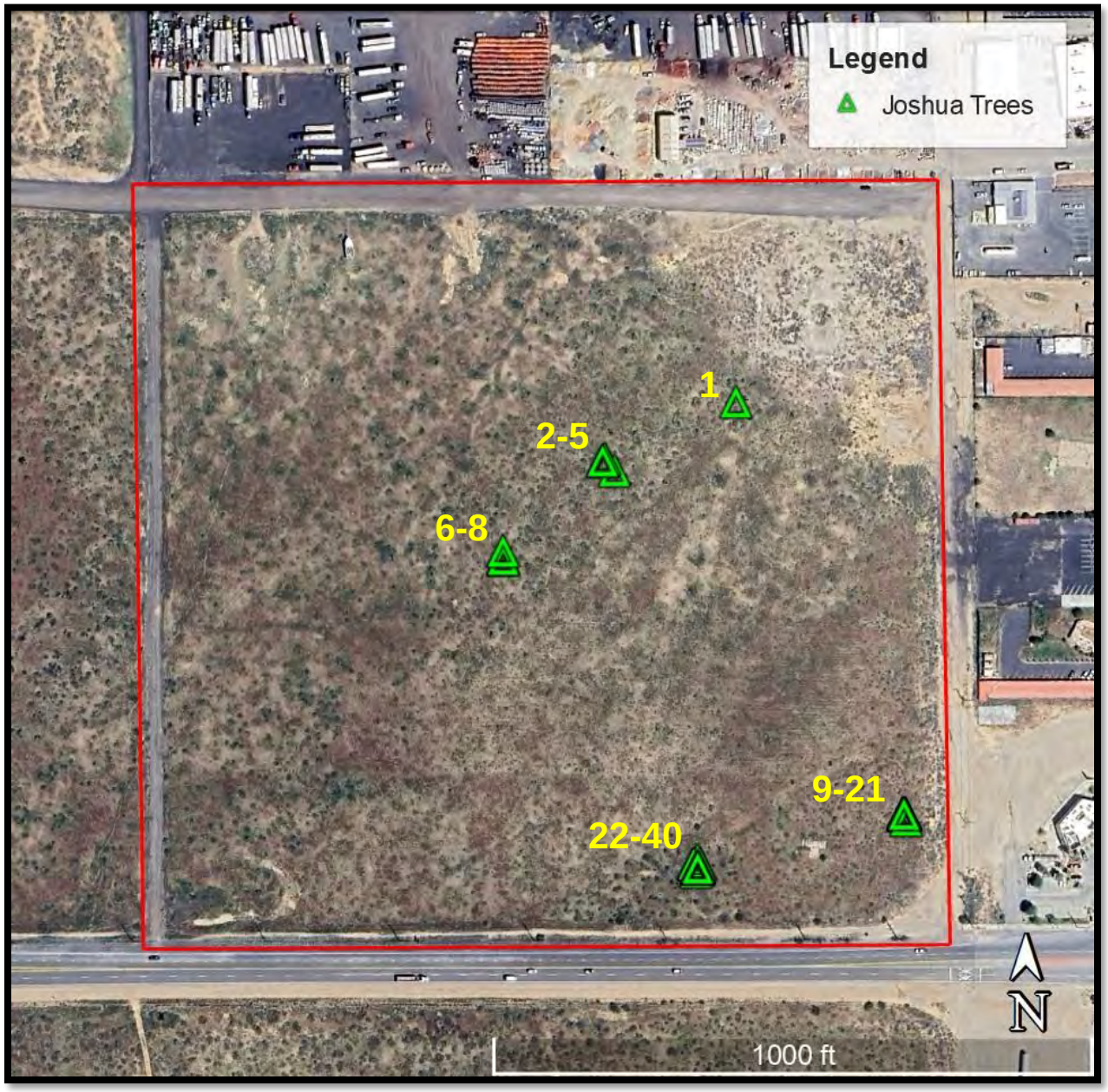
Note that individual municipalities may enact ordinances with more stringent requirements than the WJTCA. At this time (November 2023), a search of the Municipal Code for the City of Lancaster did not find any ordinances specifying additional requirements for Joshua trees. Joshua trees are protected in the Los Angeles County Antelope Valley Significant Ecological Area (SEA). However, the Project site is not mapped within the SEA (LA County 2023).

The survey found a total of 40 live and dead Joshua trees on the site, located in five (5) clumps (Table 2 and Figure 7). Mitigation costs per the WJTCA for removal of all Joshua trees currently present on the site are provided in Table 2 but should be considered preliminary until CDFW reviews the Joshua tree census data. Joshua tree photographs and survey data (as required by CDFW for an incidental take permit application) are provided in Appendix D.

Table 2. Joshua Trees by WJTCA Height Class and Estimated CDFW Mitigation Cost

Status and Size Class	Number of Joshua Trees Present			Estimated CDFW Mitigation Costs (preliminary)	
	Site	Buffer	Total	Cost per Tree*	Total Cost
LIVE TREES					
Size Class A	16	0	16	$150	$2,400
Size Class B	21	0	21	$200	$4,200
Size Class C	1	0	1	$1,000	$1,000
Live Total	38	0	38		$7,600
DEAD TREES					
Size Class A	0	0	0	$150	0
Size Class B	2	0	2	$200	$400
Size Class C	0	0	0	$1,000	0
Dead Total	2	0	2		$400
Grand Total	40	0	40		$8,000

Size Class A = < 1 meter; B = ≥ 1 meter and < 5 meters; C = ≥ 5 meters.
*CDFW mitigation costs based on the Project location within the reduced mitigation fee area for Joshua trees. Mitigation costs should be considered preliminary until CDFW review the Joshua tree census.



Note: Because of the tight clustering of Joshua tree clones, it is not possible to show all individual stems at this scale. Joshua tree data and photos are provided in Appendix D.

Avenue M and Division Street
City of Lancaster, Los Angeles County, California

Joshua Trees
Figure 7

(Aerial from Google Earth, April 2023)

4.2.2) Special Status Plant Species

No special status plants were observed during the survey, but the survey was conducted outside the flowering season for most plants. One special status plant species, crowned muilla, has a moderate potential to occur. See Appendix B for additional information.

Crowned muilla (*Muilla coronata*) is a perennial bulbiferous herb in the Themidaceae (Brodiaea) family. This species flowers from March through April or May and is found in Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland, and chenopod scrub at elevations from about 2,200 to 6,430 feet (670 to 1,960 meters). It occurs only in California and Nevada. In California, it has been documented in Los Angeles, San Bernardino, Inyo, Kern, and Tulare Counties (CNPS 2023).

Crowned muilla is not state or federally listed; it has a CRPR of 4.2 (limited distribution with moderate degree and immediacy of threat). Crowned muilla is not tracked in the CNDDB. There are four (4) mapped records of this species within five (5) miles of the Project site in the Consortium of California Herbaria database. The closest is 1.3 miles southwest of the site and was observed in 1991. The species was also observed 1.6 miles east-southeast of the site in 2008. The remaining two records are from 1888 and 1935, located 3.3 miles north and 3.5 miles west-southwest of the site, respectively.

Based on the presence of suitable habitat and records in the area, crowned muilla has a moderate potential to occur on the site.

4.2.3) Regulated Desert Native Plants

No regulated desert native plants (see Section 2.5) were found during the survey (other than Joshua tree, discussed in Section 4.2.1). Although unlikely, small plants could be overlooked during a reconnaissance-level survey.

4.3) Wildlife Species

A total of 10 vertebrate wildlife species were detected onsite during the survey. One invertebrate species, monarch butterfly (*Danaus plexippus*) was noted. A list of all wildlife species detected onsite is provided in Appendix A.

No state or federally listed or fully protected wildlife species were detected during the survey. The Project site is not within or near designated critical habitat for any federally listed wildlife species (USFWS 2023b). No special status wildlife species were observed during the survey but several

have a moderate or high potential to occur, as described below. An analysis of the potential for occurrence of listed and special status wildlife is provided in Appendix B.

Habitat for nesting birds is present on and adjacent to the site. No active or inactive bird nests were observed during the survey. There are a number of burrows on the site that may be occupied or potentially occupied by common or special status wildlife species.

4.3.1) Listed and Fully Protected Wildlife

No state or federally listed or fully protected wildlife species were detected during the survey. The Project site is not within or near designated critical habitat for any federally listed wildlife species (USFWS 2023b). A monarch butterfly individual was observed flying through the site. The California overwintering population of monarch butterfly is a candidate for federal listing. However, this applies only to the population in the overwintering sites along the coast. There is no monarch overwintering habitat on the site and it is too far inland to support overwintering.

Based on the reconnaissance survey, listed or fully protected wildlife species are either considered absent, not expected to occur, or have a low potential to occur (see Appendix B).

Crotch Bumble Bee

Crotch bumble bee (*Bombus crotchii*) was formerly on the CDFW list of Special Animals with a rank of S1S2 (imperiled to critically imperiled) but was made a candidate for state listing as endangered on June 12, 2019. This status was challenged in court and a trial court decision temporarily removed its candidacy in February 2021. A State Supreme Court ruling reversed this judgement and reinstated its candidacy on September 30, 2022 (Supreme Court Case S275412). The latest information from CDFW indicates that Crotch bumble bee is a candidate for state listing as endangered (CDFW 2023b). Under the California Endangered Species Act, candidates for listing receive the same protections as listed species.

The following description is summarized from Xerces et al. (2018) and CDFW (2019).

Crotch bumble bee occurs in open grassland and scrub habitats and primarily nests underground, often using abandoned rodent burrows, but may also use rock piles, tree cavities, etc. Crotch bumble bee has a very short tongue, and thus is best suited to forage at open flowers with short corollas. Food plants include *Asclepias*, *Chaenactis*, *Lupinus*, *Medicago*, *Phacelia*, *Salvia*, and others. The range of this species includes all of California from the northern border south to

Mexico, and into Baja, Mexico and southwestern Nevada. In California, the majority of records are south of San Francisco along the coast and western desert into southern California.

Crotch bumble bees are typically active between March and September, with peak activity coinciding with peak forage blooming periods. The flight period for Crotch bumble bee queens in California is from late February to late October, peaking in early April, with a second pulse in July. The flight period for workers and males in California is from late March through September; worker and male abundance peak in early July.

Bumble bee queens emerge from hibernation in the early spring and immediately start foraging for pollen and nectar and begin to search for a nest site. Nests are often located underground in abandoned holes made by ground squirrels, mice, and rats, or occasionally abandoned bird nests. Some species nest on the surface of the ground (in tufts of grass) or in empty cavities. Other sheltered areas, such as downed wood, rock walls, brush piles, etc., may also be used for nesting. Colonies typically consist of between 50 and 500 workers at their peak along with the queen. However, the size of Crotch bumble bee colonies has not been well documented.

There are two CNDDB records of Crotch bumble bee within five (5) miles of the Project site. EO #133 was observed in the Palmdale area in 1931. The exact location is unknown, but the CNDDB has mapped it in the general vicinity of Palmdale about 3.6 miles south-southeast of the site. EO #130 was observed in 1968 and 1971. The exact location is unknown, but it is mapped about 3.7 miles northwest of the site.

Bumble Bee Watch (BBW) is a community science project through the partnership of The Xerces Society, the University of Ottawa, Wildlife Preservation Canada, BeeSpotter, The Natural History Museum in London, and the Montreal Insectarium. Bumble bee sightings/photos are submitted by individuals and verified by bumble bee experts (BBW 2023). There are no sightings of Crotch bumble bee within five (5) miles of the Project site in BBW records.

No bumble bees were observed during the survey but would not be expected due to the timing of the survey. Based on the survey, there is marginal habitat for Crotch bumble bee on the site. Potential food plants for Crotch bumble bee observed on the site are common phacelia and buckwheat. Others may be present but were not observed due to the timing of the survey. There are potential nesting locations on the site, including rock/debris piles, under shrubs, and within grass tufts.

Based on the reconnaissance survey and available information, Crotch bumble bee has a low potential for occurrence on the site.

Desert Tortoise

The Mohave desert tortoise (*Gopherus agassizii*) is listed as threatened under both California and Federal Endangered Species Acts. On October 14, 2020, the California Fish and Game Commission (CFGC) determined that a change in state listing from threatened to endangered may be warranted. CDFW has one year (with an optional 6-month extension) to conduct an evaluation and provide a recommendation on changing state listing. An extension was granted by the CFGC and the CDFW review was due April 30, 2022. At this time (November 2023) the CFGC website indicates that the CDFW review has not been submitted and CFGC has not made a decision on changing the state listing for desert tortoise (CFGC 2023).

Under CESA, a candidate species is provided the same protections as a listed species. While desert tortoise is now a candidate for state listing as an endangered species, it also retains its protected status as a state-listed threatened species during the candidacy period. The federal listing status is unaffected by this action.

Desert tortoises occupy a variety of arid habitats from sea level to 7,300 feet elevation, but most commonly occur on gently sloping terrain with sandy-gravel soils where there is sparse cover of low-growing shrubs. Typical habitat for the desert tortoise in the Mojave Desert has been characterized as creosote bush scrub below 5,500 feet elevation, where soils are friable enough for digging of burrows but firm enough so that burrows do not collapse, annual precipitation ranges from 2 to 8 inches, the diversity of perennial plants is relatively high, and production of ephemerals is high (USFWS 2011). Home range size, movements, and activity patterns of tortoises vary. Annual home range sizes of desert tortoises in the Mojave Desert are highly variable, ranging from 1 to 89 hectares (about 2.5 to 220 acres) (Franks et al. 2011).

There are no CNDDB records of desert tortoise within 5 miles of the Project site. The Project site is not within USFWS designated critical habitat for this species (USFWS 2023b). The USGS has mapped the area including the Project site as predicted occupied desert tortoise habitat with a habitat potential index of 0.8 to 1.0. The index is a scale of 0.0 to 1.0. A value of 0.8 to 1.0 indicates that the site is highly likely to be suitable habitat for desert tortoise and this is strongly correlated with desert tortoise presence (CBI 2013a, Nussear et al. 2009). However, this model does not account for site-specific levels of habitat disturbance.

Habitat intactness has been modeled based on multiple measures of landscape development and vegetation intactness, including agriculture and urban development, linear development (roads, utility lines, and pipelines), invasive vegetation, and measures of natural vegetation

fragmentation. Terrestrial intactness is high in areas where development is low, vegetation intactness is high, and fragmentation is low. Consequently, this serves as a general indication of habitat quality. Habitat intactness for desert tortoise on the site is not included in the model output. However, surrounding undeveloped areas are modeled as low or very low habitat intactness (CBI 2013b).

The entire site, with the exception of developed areas, is potentially suitable habitat for desert tortoise, although there is a high level of disturbance on and adjacent to the site. No desert tortoise and no signs of desert tortoise were incidentally observed during the reconnaissance survey. Items of sign that would be considered evidence of desert tortoise use of the site (other than live animals) include scat, burrows, tracks, carcasses, eggshell fragments, or courtship rings. None of these were observed.

Based on results of the survey and other available information, desert tortoise has a low potential to occur on the site.

Mohave Ground Squirrel

The Mohave ground squirrel (*Xerospermophilus mohavensis*) is listed as threatened under the California Endangered Species Act. Its range is limited to the western Mojave Desert in San Bernardino, Los Angeles, Kern, and Inyo counties (Best 1995). Within its range it has a patchy distribution but occupies a variety of habitats, including saltbush scrub, creosote bush scrub, Joshua tree woodland, blackbrush (*Coleogyne ramosissima*) scrub, and big sagebrush (*Artemisia tridentata*) scrub. It occurs at elevations up to at least 5,580 feet (1,700 meters) (Gustafson 1993, Best 1995).

This species occupies areas with sandy soils or soils with a mix of sand and gravel, usually on fairly flat terrain with occasional rivulets and with a shrub cover of 10 to 19 percent. It usually avoids steep sloping and rocky terrains (Best 1995). Soil characteristics are critical because Mohave ground squirrel constructs burrows to provide temperature regulation, avoid predators, raise young, and shelter in during the inactive season.

There are three (3) CNDDB records of Mohave ground squirrel within 5 miles of the Project site. The closest of these (CNDDB Element Occurrence [EO] #26) is mapped about 0.8 mile northeast of the site and consists of collections from 1920 to 1984. None were found during surveys of this area during 1991 and 2005. The CNDDB notes that most of this area is now developed and the occurrence may be extirpated.

EO #24 is mapped about 2.0 miles south of the site and consists of collections from 1920 to 1944. The CNDDB notes that most of this area is now developed and the occurrence may be extirpated. EO #45 is mapped near Palmdale about 4.4 miles south-southeast of the site and consists of collections from 1931 and 1934. The CNDDB notes that most of this area is now developed.

The USGS has mapped the area including the Project site as potential Mohave ground squirrel habitat with a habitat potential index of 0 to 0.2 in the northwestern portion of the site, 0.2 to 0.4 in the northeastern and southwestern portions of the site, and 0.6 to 0.8 in the southeastern corner of the site The index is a scale of 0.0 to 1.0. A value of 0.6 to 0.8 indicates that the site is likely to be suitable habitat for Mohave ground squirrel and this is correlated with Mohave ground squirrel presence (CBI 2013d). However, this model does not account for site-specific levels of habitat disturbance.

Habitat intactness has been modeled based on multiple measures of landscape development and vegetation intactness, including agriculture and urban development, linear development (roads, utility lines, and pipelines), invasive vegetation, and measures of natural vegetation fragmentation. Terrestrial intactness is high in areas where development is low, vegetation intactness is high, and fragmentation is low. Consequently, this serves as a general indication of habitat quality. Habitat intactness for Mohave ground squirrel in the southeastern corner of the site is mapped is very low. The remainder of the site is not included in the model output. However, surrounding undeveloped areas are modeled as low or very low habitat intactness (CBI 2013d).

The site includes potentially suitable habitat for Mohave ground squirrel and many small mammal burrows are present, although there is disturbance on the site as well as adjacent development. Based on the reconnaissance survey and available information, Mohave ground squirrel has a low potential for occurrence on the site.

Mountain Lion

The Southern California/Central Coast ESU (evolutionarily significant unit) of mountain lion (*Puma concolor*) became a candidate for listing under CESA on April 21, 2020. Under CESA, a candidate species is provided the same protections as a listed species.

Mountain lions are primarily solitary, territorial, and occur in low density. They are mainly active at night and at dusk and dawn. Mountain lions have large home ranges that include heterogenous habitats including riparian, chaparral, oak woodlands, coniferous forests, grasslands, and occasionally rocky desert uplands. In California, mountain lions can range from near sea level to

the higher mountain slopes and some desert areas. Natal dens may be found in rocky terrain or dense vegetation (CBD 2019, Zeiner 1990).

Mountain lion observations are not tracked in the CNDDB, but there have been recent news reports of mountain lions seen in the Lancaster area (Antelope Valley Press, August 12, 2021; Antelope Valley Times, May 6, 2013; ABC7 Eyewitness News, August 28, 2015).

This species could potentially move through or forage within the site, but due to the proximity of ongoing human disturbance and lack of cover, it would not den there. No tracks or other sign of mountain lion were observed during the survey. Based on the reconnaissance survey and available information, mountain lion has a low potential for occurrence on the site.

4.3.2) Special Status Wildlife

No special status wildlife species were observed during the survey but several have a moderate or high potential to occur, as described below. An analysis of the potential for occurrence of listed and special status wildlife is provided in Appendix B.

Burrowing Owl

The burrowing owl (*Athene cunicularia*) is protected under the federal Migratory Bird Treaty Act and California Fish and Game Code and is a CDFW Species of Special Concern. Burrowing owl is a small, ground-dwelling owl found in open dry grassland, desert, or shrubland areas and in uncultivated agricultural areas, rangelands, and other open areas with low-growing vegetation.

Burrows are an essential element of burrowing owl habitat. Although the burrowing owl is capable of excavating its own burrows in soft soils, it typically modifies and inhabits abandoned burrows of small burrowing mammals, such as ground squirrels and pocket gophers. Burrowing owl has also been known to use man-made structures such as cement culverts, debris piles, and other artificial burrows.

Occupancy of burrowing owl habitat can be verified at a site by observation of at least one (1) owl or owl sign (molted feathers, cast pellets, prey remains, eggshell fragments, or excrement) at or near a burrow entrance. A site is considered occupied if at least one (1) owl has been identified onsite in the past three (3) years, because (if undisturbed) burrowing owls exhibit high site fidelity (CDFG 2012, CBOC 1993).

There are eight (8) CNDDB records of burrowing owl occurrences within five miles of the Project site. These records date from 2004 to 2006. Two of the occurrences are considered extirpated and one is possibly extirpated; the remaining five (5) records are presumed extant.

EO #709 is about 4.1 miles northeast of the site and up to eight (8) burrowing owls were observed in 2004. EO #805 is about 4.7 miles northwest of the site and two (2) adult and eight (8) juvenile burrowing owls were observed in 2006. EO #964 is about 4.7 miles northeast of the site and one burrowing owl and an active burrow were observed in 2005. Information for the remaining two records (EO #1067 and 1068) has been suppressed by CDFW to protect the resource.

There are several eBird records of burrowing owl observations within five (5) miles of the Project site (eBird 2023). The closest is from June 2014 and records two (2) burrowing owls. This location is about 0.4 mile northwest of the Project site. EBird (eBird.org) is an online database of bird distribution and abundance sponsored by the Cornell Laboratory of Ornithology and compiled from observations submitted by "citizen scientists." EBird records of special status bird observations should be interpreted with some caution.

No burrowing owls or sign of owls was observed on the site during the reconnaissance survey. However, suitable habitat is present and there are mammal burrows on the site that could be suitable for use by burrowing owl. Based on the reconnaissance survey and available information, burrowing owl has a moderate potential for occurrence on the site.

Nesting Birds

Habitat suitable for nesting birds protected by the Migratory Bird Treaty Act and California Fish and Game Code is present throughout the site and adjacent areas. Birds may nest in trees (including Joshua trees), shrubs, and other vegetation, in tree cavities, in burrows (e.g., burrowing owl), on open ground, or on structures and other surfaces, including utility poles.

No raptor nests were observed during the survey and nesting habitat for raptors is largely absent; however, utility poles on and adjacent to the site may provide nesting locations for raptors.

Desert Kit Fox

The desert kit fox (*Vulpes macrotis arsipus*) is protected as a fur-bearing mammal under Title 14 of the California Code of Regulations § 460, which states that desert kit fox may not be taken at any time (see Section 2.13). The desert kit fox does not currently have any other protected status.

The desert kit fox is a nocturnal predator of arid lands in the southwestern U.S. In California, it is found in the Mojave and Colorado Deserts, mainly in open desert scrub habitats on flat or gently sloping terrain. The kit fox excavates burrows to provide shelter, cover, and protection for young. The reproductive period is December to late May and litters are typically born in February through March (McGrew 1979).

Potentially suitable habitat for desert kit fox is present throughout the site and a number of mammal burrows are present that may be utilized by desert kit fox. The site is not within predicted occupied habitat (CBI 2013c), although predicted occupied habitat is located just to the southwest. The CNDDB does not track desert kit fox and consequently observation records are not available. Based on available information, desert kit fox has a moderate potential to occur on the site.

Other Special Status Wildlife

No special status wildlife species were observed during the reconnaissance survey. However, in addition to the species discussed above, several special status wildlife species have a moderate or high potential to occur:

- Coast horned lizard (*Phrynosoma blainvillii*; CDFW Species of Special Concern),
- Cooper's hawk (foraging) (*Accipiter cooperii*; CDFW Watch List species),
- Bell's sage sparrow (foraging and nesting) (*Artemisiospiza belli belli*; CDFW Watch List species),
- Ferruginous hawk (foraging) (*Buteo regalis*; CDFW Watch List species),
- Costa's hummingbird (foraging and nesting) (*Calypte costae*; CDFW Special Animal, USFWS Bird of Conservation Concern),
- Northern harrier (foraging) (*Circus hudsonious*; CDFW Species of Special Concern, USFWS Bird of Conservation Concern),
- Merlin (foraging) (*Falco columbarius*; CDFW Watch List species),
- Loggerhead shrike (foraging and nesting) (*Lanius ludovicianus*; CDFW Species of Special Concern),
- Southern grasshopper mouse (*Onychomys torridus ramona*; CDFW Species of Special Concern).

An analysis of the potential for occurrence of listed and special status wildlife is provided in Appendix B.

4.3.3) Wildlife Corridors

Wildlife corridors link together areas of suitable wildlife habitat that are otherwise separated by rugged terrain, changes in vegetation, or human disturbance. The fragmentation of open space areas by urbanization creates isolated "islands" of wildlife habitat. Various studies have concluded that in the absence of habitat linkages that allow movement to adjoining open space areas, some wildlife species (especially the larger and more mobile mammals) will not likely persist over time. Such fragmented or isolated habitat areas hinder the transfer of new individuals and genetic information.

Corridors mitigate the effects of this fragmentation by:

- Allowing animals to move between remaining habitats, thereby permitting depleted populations to be replenished and promoting genetic exchange;
- Providing escape routes from fire, predators, and human disturbances, thus reducing the risk that catastrophic events (fire, disease, etc.) will result in population or local species extinction; and
- Serving as travel routes for individual animals as they move in their home ranges in search of food, water, mates, and other necessary resources.

Wildlife movement activities usually fall into one of three movement categories: dispersal (e.g., juvenile animals from natal areas or individuals extending range distributions), seasonal migration, and movements related to home range activities (e.g., foraging for food or water, defending territories, or searching for mates, breeding areas, or cover).

There is existing development to the north and east of the Project site. West Avenue M runs along the southern site boundary but there is vacant undeveloped land beyond. There is also vacant undeveloped land to the west and northwest of the site but this is hemmed in by existing development. None of this vacant land is conserved open space.

The Angeles and San Bernardino National Forests are located about seven (7) miles or more south and southwest of the site. A patchwork of federal lands administered by the U.S. Bureau of Land Management (BLM) is located 32 miles or more to the north, northeast, and east of the site. Terrestrial connectivity to all of these habitat blocks is largely or completely restricted by existing development including highways and freeways, the California Aqueduct, federal and military facilities, and residential and commercial developments.

The Project site is within an area mapped as "Limited Connectivity Opportunity" by CDFW's Areas of Conservation Emphasis – Terrestrial Connectivity (CDFW 2023e). Limited Connectivity

Opportunity is defined as “areas where land use may limit options for providing connectivity (e.g., agriculture, urban) or no connectivity importance has been identified in models.”

The site provides native habitat and local movement opportunities for species that live within the site and immediately adjacent undeveloped lands. The Project site provides a generally limited contribution to wildlife movement in the area, but it has little or no terrestrial connectivity to conserved habitat blocks and is not within a wildlife corridor.

4.4) Waters and Wetlands

No desert washes (drainages) were observed on the site. There was evidence of ponding water (cracked soils) along northern portions of the site. A large ephemeral wash and blue line stream identified as Amargosa Creek is present about 0.25 mile to the west of the site and flows south to north.

5.0) SUMMARY AND RECOMMENDATIONS

The purpose of this study was to conduct a habitat assessment and Joshua tree census on the Project site. The recommendations are based on the literature review, L&L's knowledge of species and habitats in the region, and the reconnaissance-level biological field survey.

Vegetation communities on the site are rubber rabbitbrush scrub, creosote bush scrub, and non-native grassland along with developed/disturbed areas. These are not considered sensitive vegetation communities. However, scattered Joshua trees are present and the vegetation on the site could be interpreted as Joshua tree woodland, a sensitive vegetation community.

The census found 40 western Joshua trees on the site and none in the 50-foot survey buffer. Western Joshua tree is a candidate for state listing as a threatened species and is regulated under the WJTCA. An incidental take permit from CDFW and associated mitigation is required for impacts to Joshua trees. The site is within the reduced mitigation fee area under the WJTCA. Joshua tree photographs and census data (as required by CDFW for an incidental take permit application) are provided in Appendix D.

Note that individual cities and counties may have ordinances with more stringent requirements than the WJTCA. Although no City or County ordinances specifying additional requirements for Joshua trees were found during a search in November 2023, the Project proponent should be aware that such requirements could apply.

Other than Joshua tree, no federal or state-listed or special status plant species were observed during the survey. However, the survey was conducted outside of the flowering period for most plant species. Based on available information, one special status plant species, crowned muilla has a moderate potential to occur. A focused botanical survey during the early, middle, and late flowering season (generally February to September/October) is recommended.

Other than Joshua tree, no species regulated under the California Desert Native Plants Act were found during the survey. Although unlikely, small plants could be overlooked during a reconnaissance-level survey. A focused botanical survey is recommended. Permitting through the County is required for impacts to regulated desert native plants.

No listed or special status wildlife species were observed during the survey, but several have potential to occur. Based on the reconnaissance-level survey and available information, Crotch bumble bee, desert tortoise, and Mohave ground squirrel have a low potential to occur. However, due to their status as listed species (or candidates for listing), focused/protocol surveys are

recommended. A focused survey for Crotch bumble bee would consist of four (4) surveys during the bee's activity period, generally March through September and could be done concurrently with botanical surveys. For a project of this size, a protocol survey for desert tortoise can be done at any time of year and would typically be done in a single site visit.

The survey protocol for Mohave ground squirrel is complex and involves either small mammal traps or installation of bait tubes with motion sensor camera 'traps.' A habitat assessment by a Mohave ground squirrel specialist is recommended to determine if a protocol survey is warranted. If a protocol survey is warranted, it must be done between March 15 and July 15 and involves three (3) separate rounds of trapping.

There is potentially suitable habitat for burrowing owl on the site and a protocol survey is recommended. A protocol survey for burrowing owl must be done between February 1 and August 31. Prime nesting season is between April 15 and July 15, and this time period is recommended. Four surveys are required, with at least one survey between February 15 and April 15 and at least three surveys between April 15 and July 15, with at least one survey after June 15.

There is suitable habitat for nesting birds on and adjacent to the site. Nesting birds are protected under state and federal laws. Typical mitigation consists of avoiding initial vegetation clearing and ground disturbance during the nesting season (January 1 to September 15). If the nesting season cannot be avoided, a nesting bird clearance survey is typically required within three (3) days prior to the start of Project activities. Note that CDFW has been moving toward requiring nesting bird clearance surveys year-round. If active nests are present, avoidance buffers are required until the juvenile birds are no longer dependent on the nest or the nest has otherwise become inactive.

There is potentially suitable habitat for desert kit fox on the site and a focused survey is recommended. This survey could be conducted concurrently with other surveys. There is no specific protocol but surveys during the breeding season (December to April) are recommended (Dempsey et al. 2014).

No desert washes (drainages) were observed on the site. However, there is evidence of ponding water (cracked soils) along northern portions of the site. A jurisdictional delineation is recommended to determine if any resources under the jurisdiction of CDFW or the Regional Water Quality Control Board (RWQCB) are present.

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APPENDIX A: PLANT AND WILDLIFE SPECIES OBSERVED

Plant and vertebrate wildlife species identified on the site during the 2023 survey. One asterisk (*) indicates a non-native species; two asterisks (**) indicates a special status species.

Scientific Name	**Common Name**
VASCULAR PLANTS	
DICOTYLEDONS	
Gymnosperms	
EPHEDRACEAE	EPHEDRA FAMILY
Ephedra nevadensis	Nevada ephedra, desert tea, Nevada joint fir
Angiosperms	
AMARANTHACEAE	AMARANTH FAMILY
* *Amaranthus albus*	Tumbleweed, tumbling pigweed
ASTERACEAE	ASTER FAMILY
Ambrosia acanthicarpa	Annual bur-sage, annual sandbur
Baccharis sergiloides	Desert baccharis, waterweed
Ericameria nauseosa (Chrysothamnus nauseosus)	Common rabbitbrush
BORAGINACEAE	BORAGE OR WATERLEAF FAMILY
Amsinckia intermedia (A. menziesii var. intermedia)	Large flower rancher's fiddleneck
Phacelia distans	Common phacelia
BRASSICACEAE	MUSTARD FAMILY
* *Brassica tournefortii*	Sahara mustard, wild turnip
* *Sisymbrium altissimum*	Tumble mustard
CHENOPODIACEAE	GOOSEFOOT FAMILY
Grayia spinosa	Spiny hop-sage
* *Salsola tragus*	Russian thistle
EUPHORBIACEAE	SPURGE FAMILY
Croton setiger (C. setigerus, Eremocarpus setiger, E. setigerus)	Turkey-mullein, doveweed
Euphorbia species (Chamaesyce species)	Unid. spurge
GERANIACEAE	GERANIUM FAMILY
* *Erodium cicutarium*	Redstem filaree

Scientific Name	**Common Name**
MALVACEAE	MALLOW FAMILY
* *Malva parviflora*	Cheeseweed
POLYGONACEAE	BUCKWHEAT FAMILY
Eriogonum species	Unidentified buckwheat
PORTULACACEAE	PURSLANE FAMILY
* *Portulaca oleracea*	Common purslane
SOLANACEAE	NIGHTSHADE FAMILY
Lycium andersonii	Anderson box-thorn
ZYGOPHYLLACEAE	CALTROP FAMILY
Larrea tridentata	Creosote bush
MONOCOTYLEDONS	
AGAVACEAE	CENTURY PLANT FAMILY, AGAVE FAMILY
** *Yucca brevifolia*	Joshua tree
POACEAE	GRASS FAMILY
* *Bromus diandrus (B. rigidus)*	Ripgut brome
* *Cynodon dactylon*	Bermuda grass
* *Schismus barbatus*	Mediterranean grass
* *Sorghum species*	Broomcorn

Scientific Name	**Common Name**
VERTEBRATES	
Birds	
Columbidae	Pigeons and Doves
* *Streptopelia decaocto*	Eurasian collared-dove
Zenaida macroura	Mourning dove
Corvidae	Crows and Jays
Corvus corax	Common raven
Fringillidae	Finches
Haemorhous (Carpodacus) mexicanus	House finch
Icteridae	Blackbirds
Euphagus cyanocephalus	Brewer's blackbird
Parulidae	Wood Warblers
Setophaga coronata	Yellow-rumped warbler
Passerellidae	New World Sparrows
Chondestes grammacus	Lark sparrow
Zonotrichia leucophrys	White-crowned sparrow
Sturnidae	Starlings
* *Sturnus vulgaris*	European starling
Mammals	
Sciuridae	Squirrels
Spermophilus beecheyi	California ground squirrel
INVERTEBRATES	
Danaidae	Milkweed Butterflies
Danaus plexippus	Monarch (fly through), not overwintering population

APPENDIX B: SPECIAL STATUS SPECIES POTENTIALS FOR OCCURRENCE

Potentials for occurrence are based on available information and the results of a reconnaissance-level biological survey. These may be revised based on the results of future additional or focused/protocol surveys.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
Plants				
Androsace elongata ssp. acuta California androsace	Annual herb. Chaparral, cismontane woodland, coastal scrub, meadows and seeps, pinyon juniper woodland, valley and foothill grassland at 150-1305m elevation. Northern, Central, and Southern CA, Oregon, Baja. Not tracked in the CNDDB.	Mar-Jun	Fed: None Calif: S3S4 CRPR: 4.2	Not expected; no or marginal habitat, no mapped CCH records within 5 mi.
Astragalus hornii var. *hornii* Horn's milk-vetch	Annual herb. Alkaline soils and along lake margins, meadows and seeps and playas at 60-850m elevation. San Bernardino, Riverside, Inyo, Kern, LA, Orange, and Kings Cos. and Nevada. San Joaquin Valley, South Coast, Western Transverse Ranges, W edge of the Mojave Desert. Presumed extirpated in San Bernardino Co.	May-Oct	Fed: None Calif: S1 CRPR: 1B.1	Absent; no suitable habitat, no documented occurrences within 5 mi., one mapped CCH record within 5 mi. (1902, Lancaster area).
Astragalus preussii var. laxiflorus Lancaster milk-vetch	Perennial herb. Chenopod scrub at 700m elevation. CA, AZ, NV; Lancaster/Edwards AFB and Indio area, very rare.	Mar-May	Fed: None Calif: S1 CRPR: 1B.1	Not expected; no suitable habitat, one documented occurrence within 5 mi. (1902, Lancaster area, exact location unknown, possibly extirpated), no mapped CCH records within 5 mi.
Calochortus catalinae Catalina mariposa-lily	Perennial bulbiferous herb. Chaparral, cismontane woodland, coastal scrub, valley and foothill grassland at 15-700m elevation. LA, Orange, Riverside, San Bernardino, Santa Barbara, Ventura Co, some Channel Islands. Not tracked in CNDDB.	(Feb)Mar-Jun	Fed: None Calif: S3S4 CRPR: 4.2	Not expected, no or marginal habitat, above elevation range, no mapped CCH records within 5 mi.
Calochortus clavatus var. *gracilis* Slender mariposa lily	Perennial bulbiferous herb. Openings in chaparral, coastal scrub, valley and foothill grassland. 320-1000m elevation. Los Angeles and Ventura Counties. Southern base of San Gabriel Mountains.	Mar-June(Nov)	Fed: None Calif: S2S3 CRPR: 1B.2 USFS: S BLM: S	Not expected, no or marginal habitat, no documented occurrences within 5 mi., no mapped CCH records within 5 mi.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
Calochortus palmeri var. palmeri Palmer's mariposa-lily	Perennial bulbiferous herb. Mesic soils in chaparral, lower montane coniferous forest, meadows and seeps at 710-2390m elevation. Kern, LA, Riverside, Santa Barbara, San Bernardino, San Luis Obispo, Ventura Co.	Apr-Jul	Fed: None Calif: S2 CRPR: 1B.2 USFS: S BLM: S	Absent; no suitable habitat, no documented occurrences within 5 mi., no mapped CCH records within 5 mi.
Calochortus striatus Alkali mariposa lily	Perennial bulbiferous herb. Alkaline, mesic soils in chaparral, chenopod scrub, Mojavean desert scrub, meadows and seeps at 70-1595m elevation. LA, San Bernardino, Inyo, Kern, and Tulare Cos. Alkali meadows, ephemeral washes, vernal depressions and seeps. South Sierra Nevada, Mojave Desert, north base of the San Bernardino Mountains, south San Joaquin Valley, and southern Nevada.	Apr-Jun	Fed: None Calif: S2S3 CRPR: 1B.2 USFS: S BLM: S	Low; potentially marginal habitat, six extant documented occurrences within 5 mi. (closest is from 2016, 1.8 mi. N), seven mapped CCH records within 5 mi. (closest is 3.1 mi. N).
Calystegia peirsonii Peirson's morning-glory	Perennial rhizomatous herb. Chaparral, CSS, cismontane woodland, grassland. 30-1500m elevation. Northern San Gabriel Mountains and Mojave Desert; LA and Ventura Counties.	Apr - Jun	Fed: None Calif: S4 CRPR: 4.2	Not expected; no suitable habitat, no documented occurrences within 5 mi., seven mapped CCH records within 5 mi. (closest is 3.2 mi. N).
Canbya candida White pygmy-poppy	Annual herb. Gravelly, sandy, or granitic soils in Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland at 600-1460m elevation. Imperial, Inyo, Kern, LA, and San Bernardino Cos.	Mar - Jun	Fed: None Calif: S3S4 CRPR: 4.2 USFS: S	Low; potentially suitable habitat, one documented occurrence within 5 mi. (date unknown but prior to 1922, Lancaster area, exact location unknown), six mapped CCH records within 5 mi. (1893-1932; closest is 3.1 mi. N).
Castilleja plagiotoma Mojave paintbrush	Hemiparasitic perennial herb. Great Basin alluvial scrub, Joshua tree woodland, lower montane coniferous forest, and pinyon and juniper woodland at 300-2500m elevation. LA, Kern, San Bernardino, and San Luis Obispo Cos. Not tracked in the CNDDB.	Apr-Jun	Fed: None Calif: S4 CRPR: 4.3 USFS: S	Not expected; no suitable habitat, two mapped CCH records within 5 mi. (1895-1918, 3.3 mi. N).
Chorizanthe parryi var. *parryi* Parry's spineflower	Annual herb. Sandy or rocky soils and openings in chaparral, cismontane woodland, coastal scrub, valley and foothill grassland at 275-1220m elev. LA, Riverside, San Bernardino Cos.	Apr-Jun	Fed: None Calif: S2 CRPR: 1B.1 USFS: S BLM: S	Not expected; no or marginal habitat, one documented occurrence within 5 mi. (1896, Lancaster area, exact location unknown, likely a misidentification), no mapped CCH records within 5 mi.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
Chorizanthe spinosa Mojave spineflower	Annual herb. Alkaline soils (sometimes) in chenopod scrub, Joshua tree woodland, Mojavean desert scrub, playas at 6-1300m elevation. Kern, LA, and San Bernardino Cos. Not tracked in CNDDB.	Mar-Jul	Fed: None Calif: S4 CRPR: 4.2	Low; potentially suitable habitat, one mapped CCH record within 5 mi. (2005, 4.8 mi. NNE).
Cryptantha clokeyi Clokey's cryptantha	Annual herb. Mojavean desert scrub at 725-1365m elevation. Inyo, Kern, LA, and San Bernardino Cos.	Apr	Fed: None Calif: S3 CRPR: 1B.2 BLM: S	Low; potentially suitable habitat, no documented occurrences within 5 mi., no mapped CCH records within 5 mi.
Eriastrum rosamondense Rosamond eriastrum	Annual herb. Alkaline hummocks in openings in chenopod scrub and edges of vernal pools, on alkaline and often sandy soils, at 700-1175m elevation. Kern, LA Cos., known only from Rosamond and Rogers Dry Lake areas.	Apr-May(Jul)	Fed: None Calif: S1? CRPR: 1B.1	Absent; no suitable habitat, no documented occurrences within 5 mi., two mapped CCH records within 5 mi. (1930, 2.7 mi. NNW; 1909, 3.3 mi. N).
Eriophyllum mohavense Barstow woolly sunflower	Annual herb. Chenopod scrub, Mojavean desert scrub, playas at 500-960m elevation. Fresno, Kern, LA, San Bernardino Cos.	Mar-May	Fed: None CA: S2 CRPR: 1B.2 BLM: S	Not expected; potentially suitable or marginal habitat, no documented occurrences within 5 mi., no mapped CCH records within 5 mi.
Gilia interior Inland gilia	Annual herb. Cismontane woodland, Joshua tree woodland, lower montane coniferous forest in rocky soils at 700-1700m elevation. San Bernardino, LA, Ventura, Kern, and Tulare Cos. Not tracked in CNDDB.	Mar/May	Fed: None CA: S4 CRPR: 4.3	Not expected; no or marginal habitat, no mapped CCH records within 5 mi.
Gilia latiflora ssp. cuyamensis Cuyama gilia	Annual herb. Sandy soils in pinyon and juniper woodland at 595-2000m elevation. Kern, LA, Ventura, Santa Barbara, San Luis Obispo Cos. Not tracked in CNDDB.	Apr-Jun	Fed: None CA: S4 CRPR: 4.3	Absent; no suitable habitat, no mapped CCH records within 5 mi.
Goodmania luteola Golden goodmania	Annual herb. Mojavean desert scrub, meadows and seeps, playas, and valley and foothill grassland, sometimes on alkaline or clay soils, 20-2200m elevation. LA Co., central CA, NV. Not tracked in CNDDB.	Apr-Aug	Fed: None CA: S3 CRPR: 4.2	Low; potentially suitable or marginal habitat, eight mapped CCH records within 5 mi. (1882-1930; 1974, 3.7 mi. NW; 1988, 4.5 mi. SW).
Loeflingia squarrosa var. artemisiarum Sagebrush loeflingia	Annual herb. Sandy soils in desert dunes, Great Basin scrub, and Mojavean desert scrub at 700-1615m elevation. Inyo, Kern, LA, San Bernardino, Lassen, Plumas Cos., western US.	Apr-May	Fed: None Calif: S2 CRPR: 2B.2 BLM: S	Low; potentially suitable habitat, one documented occurrence within 5 mi. (2005, 2.0 mi. NE, area now developed), no mapped CCH records within 5 mi.

Species	Growth Form, Habitat and Distribution	Flowering Season	Conservation Status	Potential for Occurrence
Lycium torreyi Torrey's box-thorn	Perennial shrub. Sandy, rocky, washes, streambanks, desert valleys in Mojavean and Sonoran desert scrub from below sea level to 1220m elevation. S CA, SW US, Sonora, Mexico.	(Jan-Feb)Mar-Jun(Sep-Nov)	Fed: None Calif: S3 CRPR: 4.2	Not expected; potentially suitable habitat, one mapped CCH record within 5 mi. (1902, 4.8 mi SSE).
Muilla coronata Crowned muilla	Perennial bulbiferous herb. Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland at 670-1960m elevation. Inyo, Kern, LA, San Bernardino, Tulare Cos., Nevada.	Mar-Apr(May)	Fed: None Calif: S3 CRPR: 4.2	Moderate; potentially suitable habitat, four mapped CCH records within 5 mi. (1888-1935; 1991, 1.5 mi. SW; 2008, 1.6 ESE).
Opuntia basilaris var. *brachyclada* Short-joint beavertail	Perennial stem succulent (cactus). Chaparral, Joshua tree woodland, Mojavean desert scrub, pinyon and juniper woodland at 425-1800m elevation. LA, San Bernardino Co.	Apr-Jun(Aug)	Fed: None Calif: S3 CRPR: 1B.2 BLM: S USFS: S	Not expected; potentially suitable habitat, no documented occurrences within 5 mi., no mapped CCH records within 5 mi.
Perideridia pringlei Adobe yampah	Perennial herb. Chaparral, cismontane woodland, coastal scrub, pinyon and juniper woodland, on serpentinite or often on clay soils, 300-1800m elevation. LA, Kern, Monterey, and San Luis Obispo Cos. Not tracked in CNDDB.	Apr-Jun(Jul)	Fed: None Calif: S4 CRPR: 4.3	Absent; no suitable habitat, no mapped CCH records within 5 mi.
Puccinellia simplex California alkali grass	Annual herb. Sinks, alkaline soils, flats, lake margins, vernally mesic areas in chenopod scrub, meadows and seeps, valley and foothill grassland, vernal pools, 2-930m elevation. San Bernardino, LA Cos., Central and Northern CA.	Mar-May	Fed: None Calif: S2 CRPR: 1B.2 BLM: S	Not expected; no or marginal habitat, no documented occurrences within 5 mi., no mapped CCH records within 5 mi.
Yucca brevifolia Western Joshua tree	Evergreen, tree-like plant. Desert flats and slopes at 580-2200m (1900-7200ft), Mojave Desert in CA and NV. Not tracked in the CNDDB or CNPS.	(Nov)Jan-May	Fed: None Calif: CanT, WJTCA CRPR: None	Occurs; present on the site.

References: CDFW (2023a, 2023c), USFWS (2023a), CNPS (2023).

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
Invertebrates			
Bombus crotchii Crotch bumble bee	Coastal CA E to Sierra-Cascade crest & S into Mexico. Open grassland and scrub habitats. Food plant genera include *Antirrhinum, Asclepias, Chaenactis, Lupinus, Medicago, Salvia, Phacelia, Clarkia, Dendromecon, Eschscholzia,* and *Eriogonum*. Lives in colonies that may be underground in rodent holes or above ground in rock piles, tree cavities, etc.	Fed: None Calif: CanE, S2	Low; marginal habitat, limited forage plants, two documented occurrences within 5 mi. (1931, Palmdale area, exact location unknown; 1968/1971, exact location unknown, mapped 3.7 mi. NW).
Branchinecta lynchi Vernal pool fairy shrimp	Vernal pools or similar vernal habitats, requires cool water pools (≤50ºF to hatch, ≤75ºF to survive); disjunct locations in Riverside Co. and the Coast Ranges thru Central Valley to Tehama Co., southern Oregon, up to elevation of 1159m.	Fed: THR Calif: SA, S3	Absent; no suitable habitat, no documented occurrences within 5 mi.
Danaus plexippus pop. 1 Monarch butterfly	California overwintering population.	Fed: CAN State: SA, S2 USFS: S (Los Padres NF)	Absent; individuals may be present but no overwintering habitat, no documented occurrences within 5 mi.
Euphydryas editha quino Quino checkerspot butterfly	Coastal scrub, open chaparral, juniper woodland, native grassland. Western Riverside Co., southern San Diego Co., Baja. Flight season from mid-Jan to late May. Host plants are dwarf plantain (*Plantago erecta*), purple owl's clover (*Castilleja exserta*), white snapdragon (*Antirrhinum coulterianum*), wooly plantain (*Plantago patagonica*), thread-leaved bird's beak (*Cordylanthus rigidus*). USFWS considers species extirpated in San Bernardino Co.	Fed: END Calif: SA, S1S2	Absent; no suitable habitat, no documented occurrences within 5 mi.
Helminthoglypta fontiphila Soledad shoulderband snail	Air-breathing terrestrial snail. Known from Little Rock Creek Cyn on north side of San Gabriels; west to Santa Clarita in Soledad Cyn; east to the vicinity of Big Rock Creek; and north to Elizabeth Lake Cyn in the Sierra Pelona Mtns. Frequently found in riparian habitat (springs, seeps, along streams). May be found in rock piles, flood-borne debris, or under dead yuccas where other cover is not available.	Fed: None Calif: SA, S1	Not expected; no or marginal habitat, one documented occurrence within 5 mi. (unknown date, vicinity of Palmdale, exact location unknown).

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
Amphibians			
Rana draytonii California red-legged frog	Lowlands and foothills in or near permanent sources of deep water with dense, shrubby or emergent riparian vegetation. Requires 11-20 weeks of permanent water for larval development. Must have access to estivation habitat.	Fed: THR Calif: SSC, S2S3	Absent; no suitable habitat, no documented occurrences within 5 mi.
Reptiles			
Anniella pulchra Northern California legless lizard	Sandy or loose loamy soils under sparse vegetation. Soil moisture is essential. They prefer soils with a high moisture content. Chaparral, coastal dunes, coastal scrub.	Fed: None Calif: SSC, S2S3 USFS: S	Low; potentially suitable or marginal habitat, six documented occurrences within 5 mi. (1946-2013, closest is mapped with buffer adjacent to site).
Arizona elegans occidentalis California glossy snake	Arid scrub, rocky washes, grasslands, chaparral, often with loose or sandy soils. Patchily distributed from the eastern portion of San Francisco Bay, southern San Joaquin Valley, and the Coast, Transverse, and Peninsular Ranges, south to Baja California. Sea level to 7200' elev. Nocturnal.	Fed: None Calif: SSC, S2	Low; potentially suitable habitat, no documented occurrences within 5 mi.
Emys marmorata Western pond turtle	Perennial ponds, streams, marshes, irrigation ditches. Coastal S & cent. CA, NW Baja CA, below about 4800 ft. elev. (few higher elev. pops.)	Fed: None Calif: SSC, S3 BLM: S USFS: S	Absent; no suitable habitat, no documented occurrences within 5 mi.
Gopherus agassizii Desert tortoise	Most common in desert scrub, desert wash, and Joshua tree habitats; occurs in almost every desert habitat, 300-1070m elevation. Requires friable soil for burrow and nest construction. Creosote bush habitat with large annual wildflower blooms preferred.	Fed: THR Calif: THR, S2S3	Low; potentially suitable habitat, no documented occurrences within 5 mi.
Phrynosoma blainvillii Coast horned lizard	Coastal sage scrub, low elevation chaparral, annual grassland, riparian scrub and woodlands, desert wash, pinyon and juniper woodland, valley and foothill grassland, 0-2438m elevation. SW California to NW Baja California, Mexico.	Fed: None Calif: SSC, S4 BLM: S	Moderate; suitable habitat, three documented occurrences within 5 mi. (1964, mapped buffer includes the site; 1964, 1.6 mi. S; 1991, 4.7 mi. WSW).

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
Thamnophis hammondii Two-striped gartersnake	Usually in or near perennial fresh water & adjacent riparian habitat, pools in streams. SW CA & NW Baja California. Usually in or near perennial fresh water & adjacent riparian habitat, pools in streams. SW CA & NW Baja California. Primarily aquatic. Diurnal. Also active at night and at dusk during hot weather in some areas. Can be active most of the year depending on weather conditions. Has been found from January to November.	Fed: None Calif: SSC, S3S4 BLM: S USFS: S	Absent; no suitable habitat, no documented occurrences within 5 mi.
Birds			
Accipiter cooperii Cooper's hawk	Cismontane woodland, riparian forest, riparian woodland, upper montane coniferous forest. Forages in open areas over scrublands; California, Mexico, Central America. Nests in trees, often in dense woods. Year-round resident in most of southern California range. CNDDB only tracks nesting.	Fed: None Calif: WL, S4	Moderate (foraging), absent (nesting); potentially suitable foraging habitat, no nesting habitat, one documented occurrence (nesting) within 5 mi. (1921, Palmdale area), many eBird records in vicinity.
Aechmophorus occidentalis Western grebe	Fresh water lakes and marshes with extensive areas of open water bordered by emergent vegetation. Overwinters on salt or brackish bays, estuaries, or sheltered sea coasts, less frequently on fresh water lakes, occasionally on rivers. Not tracked in the CNDDB.	Fed: BCC Calif: None	Absent (foraging and nesting); no suitable habitat, a few eBird records in vicinity.
Agelaius tricolor Tricolored blackbird	Breeds colonially in freshwater marshes, nomadic among marshes and fields in winter; almost completely endemic to Calif. Year-round resident in southern California range. CNDDB only tracks nesting.	Fed: BCC Calif: THR, SSC, S2 BLM: S	Absent (foraging and nesting); no suitable habitat, no documented occurrences (nesting) within 5 mi., a few eBird records in vicinity.
Aimophila ruficeps canescens Southern California rufous-crowned sparrow	Sparse, mixed chaparral, scrub, rocky, brushy slopes. Central California to Baja California. Year-round resident in southern California range.	Fed: None Calif: WL, S4	Not expected (foraging and nesting); no or marginal habitat, no documented occurrences within 5 mi., one eBird record in vicinity.
Aquila chrysaetos Golden eagle	Found in a variety of habitats from sea level to 11,500 feet, rugged open habitats preferred. Large platform nests constructed on secluded cliffs, large trees, and occasionally structures (i.e., electrical transmission towers). CNDDB tracks nesting and wintering.	Fed: BGEPA Calif: FP, WL, S3 BLM: S	Not expected (foraging), absent (nesting); marginal foraging habitat, avoids urban areas, no suitable nesting habitat, no documented occurrences (nesting and wintering) within 5 mi., a few eBird records in vicinity.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
Artemisiospiza belli belli Bell's sage sparrow	Sage scrub and chaparral communities. Nests mainly in shrubs, also in grass, and occasionally on ground under shrub. Found in coastal sage scrub in south of range. Central Washington southward to Baja California, Mexico. Year-round resident in southern CA.	Fed: None Calif: WL, S3	Moderate (foraging and nesting); potentially suitable habitat, no documented occurrences within 5 mi., several eBird records in vicinity.
Asio flammeus Short-eared owl	Found in swamp lands, both fresh and salt; lowland meadows; irrigated alfalfa fields. Tule patches/tall grass needed for nesting/daytime seclusion. Nests on dry ground in depression concealed in vegetation. Great Basin grassland, marsh & swamp, meadow & seep, valley & foothill grassland, wetland. CNDDB only tracks nesting.	Fed: BCC Calif: SSC, S2	Not expected (foraging and nesting); no or marginal habitat, no documented occurrences (nesting) within 5 mi., one eBird record in vicinity.
Athene cunicularia Burrowing owl	Nests in rodent burrows, usually in grasslands. Forages in open habitat; increasingly uncomm. in S CA. Occurs through W US/Mex. Sparse in desert scrub but common around irrigated lands. CNDDB tracks burrow sites and some wintering sites.	Fed: BCC Calif: SSC, S2 BLM: S	Moderate; suitable habitat, five extant documented occurrences within 5 mi. (2004-2006, closest is 4.1 mi. NE), several eBird records in vicinity including 0.4 mi. NW (2014).
Buteo regalis Ferruginous hawk	Open grasslands, sagebrush flats, desert scrub, low foothills and fringes of pinyon and juniper habitats. Great Basin grassland and scrub, pinyon and juniper woodlands, valley and foothill grassland. Eats mostly lagomorphs, ground squirrels, and mice. Population trends may follow lagomorph population cycles. Does not breed in southern CA.	Fed: None Calif: WL, S3S4	Moderate (foraging), absent (nesting); potentially suitable foraging habitat, does not nest in southern California, one documented occurrence within 5 mi. (2008, 4.4 mi. ENE), many eBird records in vicinity.
Buteo swainsoni Swainson's hawk	Grassland/agricultural, large trees for nesting, desert scrub with Joshua tree & Fremont cottonwood overstory, near streams & open fields. Breeds overwhelmingly in Great Basin & Central Valley of California. Seen in migration in southern California. CNDDB only tracks nesting.	Fed: None Calif: THR, S4 BLM: S	Not expected (foraging), absent (nesting); no or marginal foraging habitat, no nesting habitat, two documented occurrences (nesting) within 5 mi. (1921/1927, Palmdale area; 1978, Lancaster area), many eBird records in vicinity but may be seen in migration.
Calypte costae Costa's hummingbird	Desert and coastal scrub and chaparral in desert, semi-desert and mountain foothills and seasonally in mountains, adjacent open meadows and gardens. Found in NV, UT, AZ, CA and Mexico. Year-round resident in southern CA. CNDDB only tracks nesting.	Fed: BCC Calif: SA, S4	Moderate (foraging and nesting); potentially suitable habitat, no documented occurrences (nesting) within 5 mi., several eBird records in vicinity.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
Charadrius montanus Mountain plover	Chenopod scrub, valley and foothill grasslands. Short grasslands, freshly plowed fields, newly sprouting grain fields, & sometimes sod farms. Short vegetation, bare ground, and flat topography. Prefers grazed areas and areas with burrowing rodents. Does not breed in southern CA.	Fed: BCC Calif: SSC, S2 BLM: S	Absent (foraging and nesting); no suitable foraging habitat, does not nest in southern California, three documented occurrences within 5 mi. (2011, 3.8 mi. E; 2012, 4.1 mi. ENE; 2007, 4.0 mi. ESE - all agricultural areas), several eBird records in vicinity - mainly in agricultural areas.
Charadrius nivosus nivosus Western snowy plover	Coastal beaches, sand spits, salt pans, river bars. Coastal areas from Washington State south to Baja. Federal listing applies only to the Pacific coastal population. CNDDB only tracks nesting. Year-round resident in southern CA range except for eastern deserts where it is seen in migration.	Fed: THR, BCC Calif: SSC, S3	Absent (foraging and nesting); no suitable habitat, no documented occurrences within 5 mi., no eBird records in vicinity.
Circus hudsonius *(C. cyaneus)* Northern harrier	Open habitats with hunting perches, marshes, meadows, grasslands, pastures, croplands, lake and river edges. Nests on the ground. Breeds widely but locally in North America, various portions of CA including Central Valley, central and northern coast, northeastern CA, and southern coastal CA. Does not breed in most of southern CA range. CNDDB only tracks nesting.	Fed: BCC Calif: SSC, S3	Moderate (foraging), absent (nesting); potentially suitable foraging habitat, does not breed in area, no documented occurrences (nesting) within 5 mi., many eBird records in vicinity.
Falco columbarius Merlin	Woodlands, grasslands, agricultural fields, and areas around livestock feed lots. Dense tree stands close to bodies of water are needed for cover. Uses a wide variety of habitats. Winter migratory bird to southern California.	Fed: None Calif: WL, S3S4	Moderate (foraging), absent (nesting); potentially suitable foraging habitat, does not breed in southern California, no documented occurrences within 5 mi., several eBird records in vicinity.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
Gymnogyps californianus California condor	Resident of the semi-arid, rugged mountain ranges surrounding the southern San Joaquin Valley, including the Coast Ranges from Santa Clara Co. south to Los Angeles Co., the Transverse Ranges, Tehachapi Mts., and southern Sierra Nevada. Forages over wide areas of open rangelands, roosts on cliffs and in large trees and snags. Occurs mostly between sea-level and 2700 m (0-9000 ft), and nests from 610-1372 m (2000-6500 ft). Nests in caves, crevices, behind rock slabs, or on large ledges on high sandstone cliffs. Nonbreeding individuals move north to Kern and Tulare cos. in April, often returning south in September to winter in Tehachapi Mts., Mt. Pinos, and Ventura and Santa Barbara cos. Breeding pair remains near nesting area yearlong.	Fed: END Calif: END, FP, S2	Absent (foraging and nesting); no suitable habitat, no documented occurrences within 5 mi., no eBird records in vicinity.
Lanius ludovicianus Loggerhead shrike	Open areas where small trees, shrubs, and fences can provide suitable perches. Nests in small trees and large shrubs. Throughout much of North America. CNDDB only tracks nesting.	Fed: None Calif: SSC, S4	High (foraging and nesting); potentially suitable habitat, two documented occurrences (nesting) within 5 mi. (both 2008, 1.7 mi. S and 0.9 mi. E), many eBird records in vicinity.
Plegadis chihi White-faced ibis	Freshwater wetlands, shallow lakes, wet meadows, flooded pastures and croplands. Nests in dense, fresh emergent wetland. Salton Sea, local winter visitor along coast, uncommon elsewhere in southern CA and Central Valley. CNDDB only tracks nesting colonies.	Fed: None Calif: WL, S3S4	Absent (foraging and nesting); no suitable habitat, no documented occurrences (nesting) within 5 mi., a few eBird records in vicinity - mainly in agricultural areas.
Polioptila californica californica Coastal California gnatcatcher	Sage scrub, also chaparral, grasslands, riparian adjacent to or mixed with sage scrub below 2,500 ft elevation. S Ventura Co. to LA, Orange, Riv., San Bern., San D. Cos into Baja CA, Mexico.	Fed: THR Calif: SSC, S2	Absent (foraging and nesting); no suitable habitat, no documented occurrences within 5 mi., no eBird records in vicinity.
Spinus lawrencei Lawrence's goldfinch	Summer breeder, may overwinter. Coastal side of southern and central CA, western edge of southern deserts, east side of Central Valley into northern CA, Colorado River, SW US and northern Mex. Valley foothill hardwood and hardwood-conifer, desert riparian, pinyon juniper, palm oasis, lower montane. Nests in oaks, conifers. CNDDB only tracks nesting.	Fed: BCC Calif: SA, S4	Low (foraging), absent (nesting); no or marginal foraging habitat, no nesting habitat, no documented occurrences (nesting) within 5 mi., several eBird records in vicinity.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
Toxostoma lecontei Le Conte's thrasher	Desert resident; primarily of open desert wash, desert scrub, alkali desert scrub, and desert succulent scrub habitats. Commonly nests in a dense, spiny shrub or densely branched cactus in desert wash habitat, usually 2-8 feet above ground.	Fed: BCC Calif: SSC*, S3 BLM: S* *San Joaquin population only	Low (foraging and nesting); potentially suitable habitat, one documented occurrence within 5 mi. (1920, Palmdale area), a few eBird records in vicinity.
Toxostoma redivivum California thrasher	Chaparral. Coastal and foothill areas of California and NW Baja California, Mexico. Resident throughout its range. Not tracked in CNDDB.	Fed: BCC Calif: None	Low (foraging and nesting); no or marginal habitat, a few eBird records in vicinity.
Vireo bellii pusillus Least Bell's vireo	Riparian woodlands, bottomlands. N Mex. & Baja CA into S CA & the S mid-western US. CNDDB only tracks nesting.	Fed: END Calif: END, S3	Absent (foraging and nesting); no suitable habitat, no documented occurrences (nesting) within 5 mi.
Mammals			
Corynorhinus townsendii Townsend's big-eared bat	Throughout California in a wide variety of habitats. Most common in mesic sites. Roosts in the open, hanging from walls and ceilings. Roosting sites limiting. Extremely sensitive to human disturbance. Broadleaved upland forest, chaparral, chenopod scrub, Joshua tree woodland, lower and upper montane coniferous forest, meadow and seep, Mojavean and Sonoran desert scrub, riparian forest/woodland, Sonoran thorn woodland, valley and foothill grassland.	Fed: None Calif: SSC, S2 USFS: S BLM: S	Low (foraging), absent (roosting); potentially suitable foraging habitat, no roosting habitat, no documented occurrences within 5 mi.
Onychomys torridus ramona Southern grasshopper mouse	Nocturnal, active year-round. Desert scrub, coastal scrub, mixed chaparral, sagebrush, especially scrub habitats with friable soil, prefers low to moderate shrub cover. LA through San Diego counties and northwest Baja.	Fed: None Calif: SSC, S3	Low-moderate; potentially suitable habitat, no documented occurrences within 5 mi.
Perognathus inornatus San Joaquin pocket mouse	Grassland, oak savanna and arid scrubland in the southern Sacramento Valley, Salinas Valley, San Joaquin Valley and adjacent foothills, south to the Mojave Desert. Associated with fine-textured, sandy, friable soils. Cismontane woodland, Mojavean desert scrub, valley & foothill grassland.	Fed: None Calif: SA, S2S3 BLM: S	Low; potentially suitable habitat, one documented occurrence within 5 mi. (1931, Palmdale area, identification of specimen questionable).
Puma concolor Mountain lion	Various habitats, large home ranges. Natal dens often in rocky outcrops or dense vegetation. Not tracked in the CNDDB.	Fed: None Calif: CAN	Low; potentially suitable habitat, news reports of mountain lions in Lancaster area.

Species	Habitat and Distribution	Conservation Status	Potential for Occurrence
Taxidea taxus American badger	Mountains, deserts, interior valleys where burrowing animals are available as prey & soil permits digging. Throughout Central & W North America.	Fed: None Calif: SSC, S3	Low; no or marginal habitat, no documented occurrences within 5 mi.
Vulpes macrotis arsipus Desert kit fox	Sparsely vegetated scrub habitats and native or annual grasslands such as alkali sink scrub, saltbush scrub, and chenopod scrub, although oak woodlands, vernal pools, alkali meadows and playas also provide habitat. Closely associated with creosote scrub in the California desert region. Semifossorial and primarily nocturnal, requires friable soils for excavating dens. Susceptible to canine distemper. Not tracked in the CNDDB.	Fed: None Calif: PFB	Moderate; potentially suitable habitat.
Xerospermophilus mohavensis Mohave ground squirrel	Chenopod scrub, Joshua tree woodland, Mojavean desert scrub, open desert scrub, alkali scrub, Joshua tree woodland. Also feeds in annual grasslands. Restricted to Mojave Desert. Prefers sandy to gravelly soils, avoids rocky areas. Digs burrows at base of shrubs.	Fed: None Calif: THR, S2 BLM: S	Low; potentially suitable habitat, three documented occurrences within 5 mi. (1934, 4.4 mi. SE; 1944, 2.0 mi. S; 1984, 0.8 N, not detected in 1991 and 2005).

References: CDFW (2023b, 2023c), USFWS (2023a), Cornell (2023), eBird (2023), USFS (2013).
USFWS Bird of Conservation Concern (BCC) status shown in this table is specific to the southern California region.

"Documented occurrences" refers to species occurrences in the California Natural Diversity Database (CNDDB) unless otherwise noted. For plant species that are not tracked in the CNDDB, records from the Consortium of California Herbaria (CCH) may be used (only CCH records that include map coordinates are utilized). EBird (eBird.org) is an online database of bird distribution and abundance sponsored by the Cornell Laboratory of Ornithology and compiled from observations submitted by citizen scientists. eBird records of bird observations are noted but should be interpreted with caution. eBird records "in vicinity" means records within about a 5-mile radius of the site.

Federal designations: (Federal Endangered Species Act, U.S. Fish and Wildlife Service):

- END: Federally listed, endangered; an animal or plant in danger of extinction within the foreseeable future throughout all or a significant portion of its range.
- THR: Federally listed, threatened; an animal or plant which is likely to become an Endangered species within the foreseeable future throughout all or a significant portion of its range.
- Cand Candidate for federal listing as threatened or endangered; species that has been studied by the U.S. Fish and Wildlife Service, and the Service has concluded that it should be proposed for addition to the Federal Endangered and Threatened species list.
- Prop Proposed for federal listing as Endangered or Threatened under Section 4 of the Endangered Species Act.
- Delisted: Previously federally listed as endangered or threatened, but is no longer listed (e.g., due to recovery).
- None: The species has no federal conservation status.
- BGEPA: Federal Bald and Golden Eagle Protection Act; protects bald and golden eagles.

BCC: USFWS Bird of Conservation Concern; migratory and non-migratory bird species (beyond those already designated as Federally threatened or endangered) that represent USFWS highest conservation priorities.

State designations: (California Endangered Species Act, California Dept. of Fish and Wildlife)

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

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

CanT: Candidate Threatened; a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that the Fish and Game Commission has formally noticed as being under review by the Department of Fish and Wildlife for addition to the list of threatened species, or a species for which the commission has published a notice of proposed regulation to add the species to the list of threatened species.

THR: State listed, threatened; a native species or subspecies of a bird, mammal, fish, amphibian, reptile, or plant that, although not presently threatened with extinction, is likely to become an endangered species in the foreseeable future in the absence of special protection and management efforts.

RARE: State listed as rare: a native plant species, subspecies, or variety when, although not presently threatened with extinction, it is in such small numbers throughout its range that it may become endangered if its present environment worsens (Native Plant Protection Act of 1977).

WJTCA Western Joshua Tree Conservation Act; specifies mitigation for take of Joshua trees.

SSC: CDFW Species of Special Concern; vertebrate species of concern due to declining population levels, limited ranges, and/or continuing threats that have made them vulnerable to extinction.

FP: Fully Protected; California Fish and Game Code states that Fully Protected species "...may not be taken or possessed at any time and no provision of this code or any other law shall be construed to authorize the issuance of permits or licenses to take any fully protected" species, although take may be authorized for necessary scientific research.

Delisted: Previously state listed as threatened or endangered, but no longer listed (e.g., due to recovery).

SA: CDFW Special Animal; wildlife of state conservation concern.

SH: All California sites are historical, still some hope of rediscovery.

SX: All California sites are historical, presumed extirpated.

PFB: Protected Fur-bearing Mammal under Title 14 of the California Code of Regulations.

None: The species has no state conservation status.

State Rank (S Rank): A reflection of the condition and imperilment of an element (plant, animal, vegetation community) throughout its range within the state. The S ranks are determined through a combination of rarity, threat, and trend factors, weighted more heavily on the rarity factors. Where correct category is uncertain, the S rank includes two categories or a question mark. Older ranks, which need to be updated, may still contain a decimal "threat" rank of .1, .2, or .3, where .1 indicates very threatened status, .2 indicates moderate threat, and .3 indicates few or no current known threats.

S1: Critically imperiled; imperiled in the state because of extreme rarity or some factor(s) making it especially vulnerable to extirpation from the state.

S2: Imperiled; imperiled in the state because of rarity due to very restricted range, very few populations, steep declines, or other factors making it very vulnerable to extirpation from the state or nation.

S3: Vulnerable; vulnerable in the state due to a restricted range, relatively few populations, recent and widespread declines, or other factors making it vulnerable to extirpation.

S4: Apparently secure; uncommon but not rare, some cause for long-term concern due to declines or other factors.
S5: Secure; common, widespread, and abundant in the state.
SH: Possibly extirpated; species or community occurred historically in the state, and there is some possibility that it may be rediscovered. The element has not been seen for at least 20 years, but suitable habitat still exists.
SX: Presumed extirpated; species or community is believed to be extirpated from the state.

California Rare Plant Rank (CRPR): The *California Rare Plant Ranks* are a ranking system originally developed by the California Native Plant Society (CNPS) to better define and categorize rarity in California's plants. These ranks were previously known as the CNPS lists but were renamed to the *California Rare Plant Ranks* to better reflect the joint effort among the CNPS, the CDFW, and a wide range of botanical experts, who work together to assign a rarity ranking.

1A: Plants presumed extinct in California and rare/extinct elsewhere.
1B: Plants rare, threatened, or endangered in California and elsewhere.
2A: Plants presumed extirpated in California, but more common elsewhere.
2B: Plants rare, threatened, or endangered in California but more common elsewhere.
3: Plants about which we need more information.
4: Plants of limited distribution.
X.1: Extension to CRPR (e.g., 1B.1); seriously threatened in California.
X.2: Extension to CRPR (e.g., 1B.2); fairly threatened in California.
X.3: Extension to CRPR (e.g., 1B.3); not very threatened in California.
CBR: Considered but rejected.

U.S. Forest Service (USFS) designation:

S: Sensitive; plant and animal species identified by a regional forester that are not listed or proposed for listing under the Federal Endangered Species Act for which population viability is a concern, as evidenced by significant current or predicted downward trends in population numbers or density, or significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution.

Bureau of Land Management (BLM designation:

S: Sensitive; plant and animal species requiring special management consideration to promote their conservation and reduce the likelihood for future listing under the Federal Endangered Species Act. Includes species designated as sensitive by the BLM State Director and all Federal Candidate species and Federal delisted species in the 5 years following delisting. Sensitive species are managed as special status species.

Definitions of occurrence probability:

These definitions provide general guidance. Classifications for individual species may be modified based on biologists' experience and expert opinion.

Occurs: Species was detected during surveys or previously documented on the Project site or adjacent areas.
High: Species documented in the vicinity (i.e., within 5 miles) of the Project site and suitable habitat is present, but species not detected during surveys.
Moderate: Species documented in the vicinity of the Project site or suitable habitat present and site is within geographic and elevational range of the species.
Low: Species not documented in the vicinity of the Project site or suitable habitat is marginal.
Not Expected: Species not documented in the vicinity of the Project site and suitable habitat marginal or absent, or site is not within geographic and elevational range of the species.
Absent: No potential for the species to occur due to lack of habitat, geographic or elevation range, species life history, survey results, etc.
Unknown: No focused surveys have been performed in the region, and the species' distribution and habitat are poorly known.

APPENDIX C: SITE PHOTOGRAPHS

All photographs were taken on October 29, 2023.

Creosote scrub, from southeast area of site facing north-northwest.

Rubber rabbitbrush scrub, from northeastern area of site facing north.

Non-native grassland, from west-central area of site facing south.

Non-native grassland, from west-central area of site facing east.

Debris piles on site, unimproved road along western border of site is visible on right, from northwest corner of site facing south-southeast.

Debris piles on site, unimproved road along northern border of site is visible on left, from northwest corner of site facing east-southeast.

Mammal burrow under concrete debris, northwest area of site facing north-northwest.

Mammal burrow, east-central area of site facing northwest.

Cracked soils indicative of ponding water, northwest corner of site facing south.

Cracked soils indicative of ponding water, northeast area of site facing west-southwest.

Debris piles, northwestern area of site facing west-northwest.

Old boat and other debris on site, northwestern area of site facing east-southeast.

APPENDIX D: JOSHUA TREE CENSUS

All photos taken on October 29, 2023. See attached spreadsheet for data.

Joshua Tree 1 (one tree - trunk is leaning horizontal with branches extending upward)

Joshua Tree 2 (large tree on right)

Joshua Tree 3 (on left – pink flagging)

Joshua Tree 4 (on right – pink flagging)

Joshua Tree 5 (small seedling)

Joshua Tree 6 (large trunk on left)

Joshua Tree 7 (center – pink flagging)

Joshua Tree 8 (left – pink flagging)

Joshua Tree 9 (left – pink flagging)

Joshua Tree 10 (center – pink flagging)

Joshua Tree 11 (center bottom – pink flagging)

Joshua Tree 12 (center – pink flagging)

Joshua Tree 13 (left – pink flagging)

Joshua Tree 14 (center bottom – pink flagging)

Joshua Tree 15 (center bottom underneath – pink flagging)

Joshua Tree 16 (small seedling – pink flagging)

Joshua Tree 17 (small clone at center bottom – pink flagging)

Joshua Tree 18 (center bottom – pink flagging)

Joshua Tree 19 (right – pink flagging)

Joshua Tree 20 (center, tallest – pink flagging)

Joshua Tree 21 (right – pink flagging)

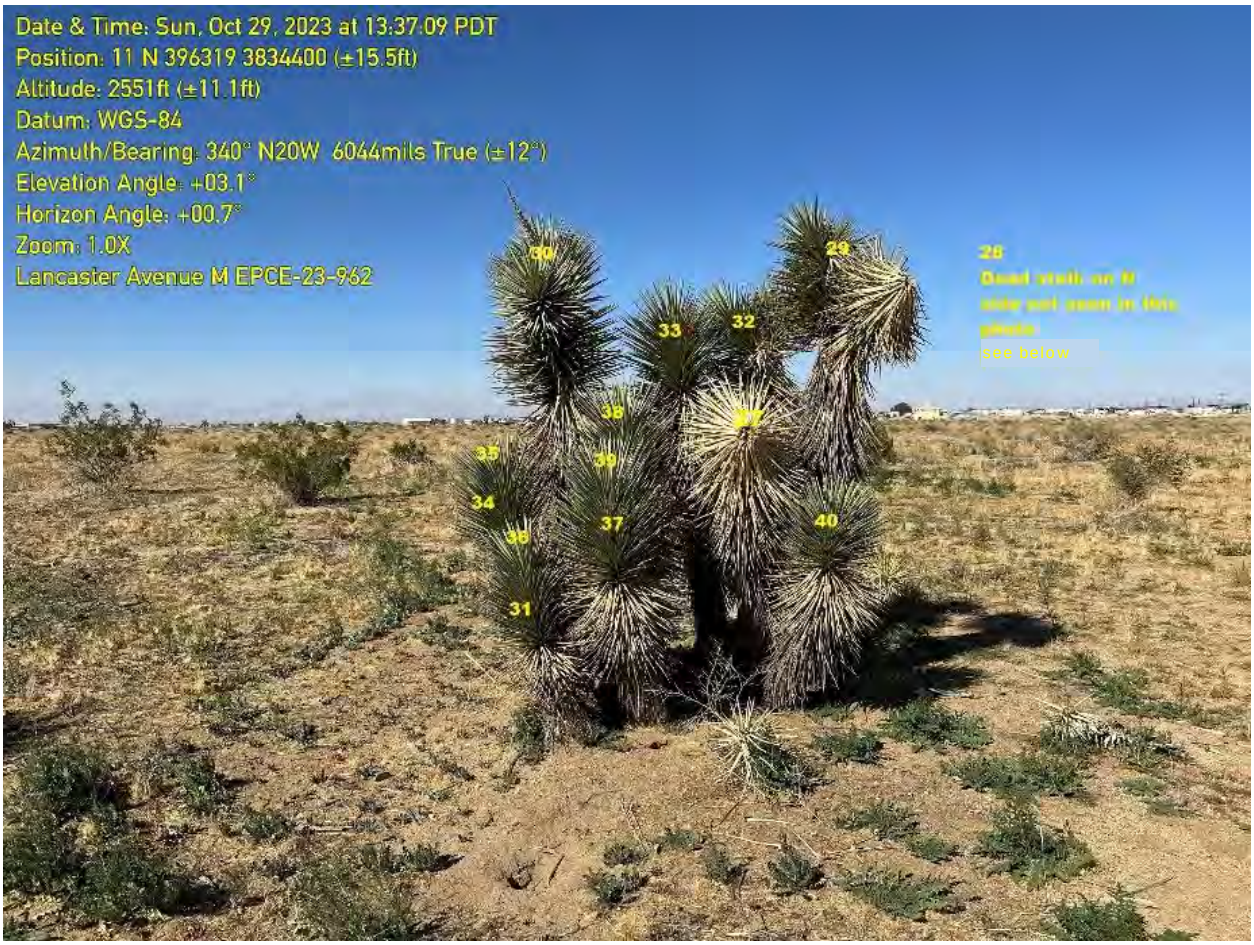
Joshua Tree 22 (bottom front, small clone on right – pink flagging)

Joshua Tree 23 (bottom front, smaller clone on left – pink flagging)

Joshua Tree 24 (seedling, bottom right – pink flagging)

Joshua Tree 25 (center front – pink flagging)

Joshua Tree 26 (left front – pink flagging)



Joshua Trees 27 and 29 through 40 (labeled)

Joshua Tree 28 (arrow - only lower portion of stem is visible [ignore pink flagging])

	Tree ID	Tree Latitude	Tree Longitude	Size Class	Actual Height of Tree (meters) (Optional)	Live or Dead?	Mature Tree (branched)?	Flowering or Fruiting Stage? (flowers, fruits, or none)	Impact to Tree (removal, trim, relocation, other, or none)	Will project activities be within 15 meters of tree?	Relocation Site	Additional Notes
1	34.648428	-118.131147	B	4.7	Live	Y	None				leaning	
2	34.648115	-118.13182	C	5.0	Live	Y	None					
3	34.64816	-118.131875	B	1.2	Live	N	None					
4	34.64816	-118.131886	A	0.9	Live	N	None					
5	34.648169	-118.131875	A	0.1	Live	N	None					
6	34.647749	-118.132437	B	4.4	Live	Y	None				leaning	
7	34.647713	-118.132436	B	1.1	Live	N	None					
8	34.647713	-118.132436	A	0.4	Live	N	None					
9	34.646552	-118.130216	A	0.8	Live	N	None					
10	34.646552	-118.130216	A	0.6	Live	N	None					
11	34.646552	-118.130216	A	0.3	Live	N	None					
12	34.646552	-118.130216	A	0.5	Live	N	None					
13	34.646552	-118.130216	B	1.0	Live	N	None					
14	34.646552	-118.130216	A	0.5	Live	N	None					
15	34.646552	-118.130216	A	0.4	Live	N	None					
16	34.646525	-118.130205	A	0.2	Live	N	None					
17	34.646552	-118.130216	A	0.3	Live	N	None					
18	34.646552	-118.130216	B	1.4	Live	N	None					
19	34.646552	-118.130216	B	2.3	Live	N	None					
20	34.646552	-118.130216	B	2.6	Live	Y	None					
21	34.646552	-118.130216	B	2.1	Live	N	None					
22	34.646325	-118.131381	A	0.8	Live	N	None					
23	34.646325	-118.131381	A	0.6	Live	N	None					
24	34.646343	-118.131359	A	0.2	Live	N	None					
25	34.646289	-118.131369	A	0.8	Live	N	None					
26	34.646325	-118.131348	A	0.6	Live	N	None					
27	34.646307	-118.131359	B	1.7	Dead	Y	None					

Tree ID	Tree Latitude	Tree Longitude	Size Class	Actual Height of Tree (meters) (Optional)	Live or Dead?	Mature Tree (branched)?	Flowering or Fruiting Stage? (flowers, fruits, or none)	Impact to Tree (removal, trim, relocation, other, or none)	Will project activities be within 15 meters of tree?	Relocation Site	Additional Notes
28	34.646307	-118.131359	B	1.8	Dead	N	None				
29	34.646307	-118.131359	B	2.8	Live	Y	None				
30	34.646307	-118.131359	B	2.6	Live	Y	None				
31	34.646307	-118.131359	B	1.1	Live	N	None				
32	34.646307	-118.131359	B	2.1	Live	Y	None				
33	34.646307	-118.131359	B	2.0	Live	N	None				
34	34.646307	-118.131359	B	1.4	Live	N	None				
35	34.646307	-118.131359	B	1.5	Live	N	None				
36	34.646307	-118.131359	B	1.4	Live	N	None				
37	34.646307	-118.131359	B	1.5	Live	N	None				
38	34.646307	-118.131359	B	1.7	Live	N	None				
39	34.646307	-118.131359	B	1.5	Live	N	None				
40	34.646307	-118.131359	B	1.6	Live	N	None				

Census Information

Project Name and Permittee Name

West Avenue M and Division Street

Neil Badlani
M Avenue LLC
12620 Liddington Street
Cerritos, CA 90703

Project Address/APN or Location Description

Assessor Identification Numbers (AINs) 3128-013-010 and 3128-013-011. Project is located on the northwest corner of West Avenue M and Division Street in the City of Lancaster in Los Angeles County. From Highway 14, take Avenue M exit and go east for about a mile, site is on north side of Avenue M.

Datum of the Coordinates

WGS84

Project Site Boundary Corners (Lat/Long)

NW 34.649420°, -118.134488°
NE 34.649440°, -118.130031°
SE 34.645959°, -118.129964°
SW 34.645940°, -118.134430°

Approximate center of site 34.647680°, -118.132214°

Project Acreage

±38.78 acres

Name, business (if applicable), title (e.g., botanist, property owner, etc.), and contact information for the person who prepared the census

Guy Bruyea, Field Biologist (field survey); gbruyea@llenviroinc.com
Carla Wakeman, Senior Biologist (report); cwakeman@llenviroinc.com
L&L Environmental, Inc.
Mailing Address: 700 East Redlands Blvd., #U351, Redlands CA 92373
Physical Address: 721 Nevada, Suite 307, Redlands, CA 92373
Office: 909-335-9897

Census Take Qualifications

Mr. Bruyea has over 25 years of experience as a biological consultant in southern California and has performed numerous vertebrate, invertebrate, and botanical surveys. He is an experienced botanist and wildlife biologist. Mr. Bruyea has performed hundreds of biological surveys in Riverside, San Bernardino, Orange, Los Angeles, Ventura, and San Diego Counties, including focused surveys for special status plants and Joshua tree inventories.

He has a B.S. in Biology from Arizona State University, Tempe, Arizona (1985) with continuing education in the biological sciences at Riverside Community College, Riverside, California (1991-1993). USFWS 10(a)(1)(A) Survey Permit for Quino checkerspot butterfly, coastal California gnatcatcher, and Delhi Sands flower-loving fly.

Date(s) census was performed

October 29, 2023

Any other site condition notes

Site has been disturbed since the 1940s.

APPENDIX E: CERTIFICATION

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

DATE: November 17, 2023 SIGNED: _____

Leslie Irish, Principal, L&L Environmental, Inc.
909-335-9897

1) Fieldwork Performed By:

Guy Bruyea
Name

2) Fieldwork Performed By:

_____
Name

3) Fieldwork Performed By:

_____
Name

4) Fieldwork Performed By:

_____
Name

5) Fieldwork Performed By:

_____
Name

APPENDIX F: DEVELOPMENT PLANS

DETENTION BASIN

96'-3"

120 TRAILER STALLS

190'-0"

1,530,545 sf
MEASURED SITE AREA

50 DOCK DOORS

996'-0"

680'-0"

702,899 sf
MEZZANINE AREA NOT INCLUDED

50 DOCK DOORS

190'-0"

78 TRAILER STALLS

VAC/VIC AVE L9/DIVISION

VAC/VIC AVE L9/DIVISION

VAC/VIC DIVISION ST/AVE L9

42213 SIERRA

42165 SIERRA

42145 SIERRA

42137 SIERRA

VAC/SIERRA HWY

42101 SIERRA

42047 SIERRA

VAC/DIVISION ST/VIC

42011 SIERRA

3128-013-015

VAC/COR

Division St & W Avenue M

Avenue M and Division (Single BLDG)
Lancaster

8/2/2023

SKH
ARCHITECT
4590 MacArthur Blvd 500
Irvine, California 92660
714-822-1171
steve@skharchitect.com

Avenue M and Division (Two BLDGs)
Lancaster

8/2/2023

SKH
ARCHITECT
4590 MacArthur Blvd 500
Irvine, California 92660
714-822-1171
steve@skharchitect.com