

APPENDIX B1: BIOLOGICAL RESOURCES ASSESSMENT

Lancaster Travel Center Project Draft IS/MND



Lead Agency

City of Lancaster

44933 Fern Avenue
Lancaster, CA 93534

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Biological Resource Assessment of
APNs 3114-012-029, 064, 066
Lancaster, California

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Abstract

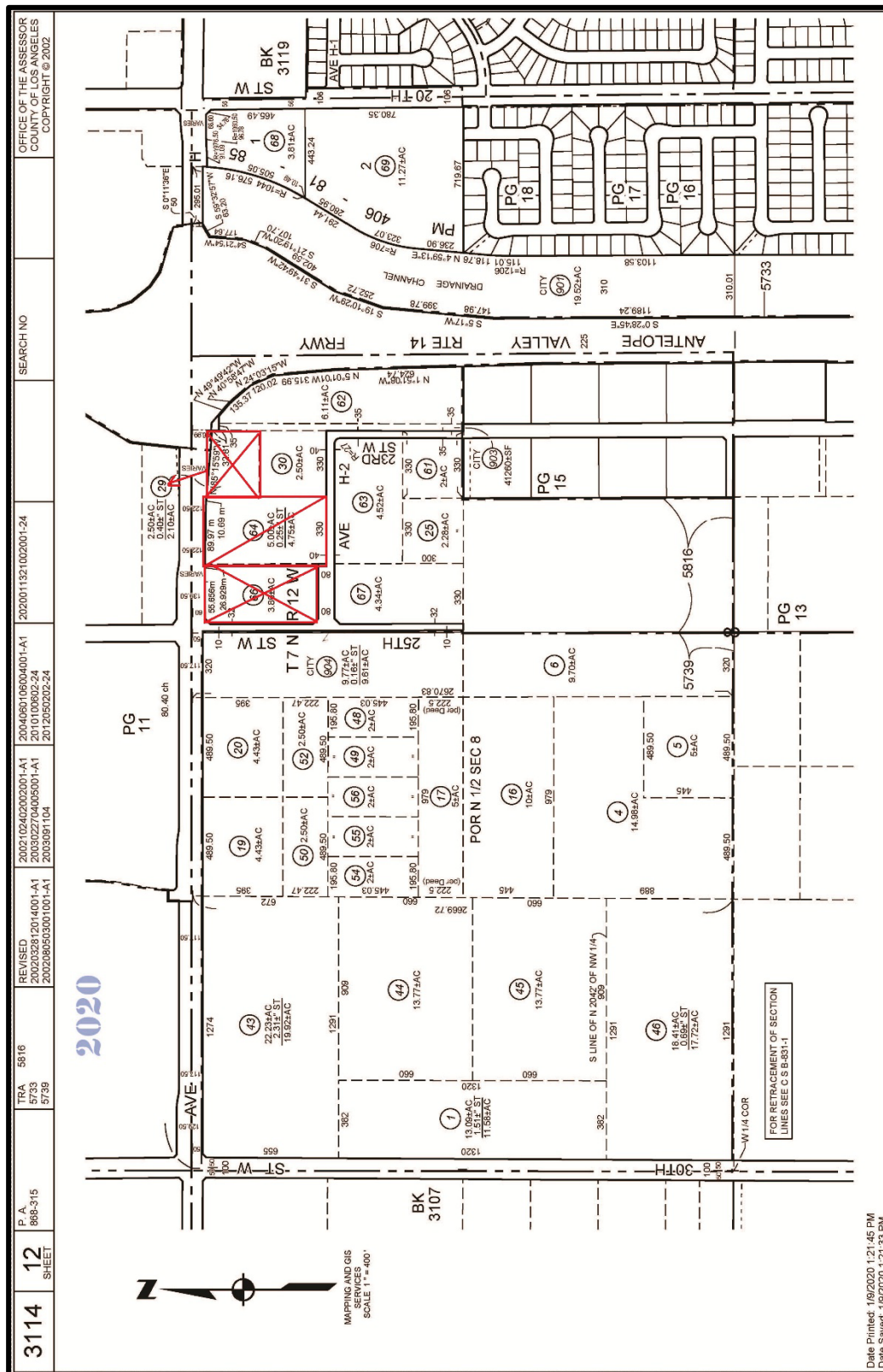
Development has been proposed for APNs 3114-012-029, 064, 066, Lancaster, California. The approximately 11 acre (4.5 ha) study area was located east of 25th Street West and south of Avenue H, T7N, R12W, a portion of the N1/2 of the NW1/4 of the NE1/4 of Section 8, S.B.B.M. A line transect survey was conducted on 24 May 2025 to inventory biological resources. The study area was characteristic of a highly disturbed field. A total of 17 plant species and eight wildlife species or their sign were observed during the line transect survey. No desert tortoises (*Gopherus agassizii*) or their sign were observed within the study area. No desert kit foxes (*Vulpes macrotis*) or their sign were observed during the line transect survey. Suitable habitat for Mohave ground squirrels (*Xerospermophilus mohavensis*) was not present within or adjacent to the study site. No burrowing owls (*Athene cunicularia*), or their sign were observed during the field survey. The vegetation within the study site does not provide potential nesting sites for migratory birds. No Swainson's hawk (*Buteo swainsoni*) nesting has been documented within 5 miles of the study site within the last 5 years. Crotch's bumble bee (*Bombus crotchii*) is not expected to occur within the study area due to a lack of suitable habitat. No sensitive plants, specifically, Joshua tree (*Yucca brevifolia*), alkali mariposa lily (*Calochortus striatus*), Rosamond eriastrum (*Eriastrum rosamondense*), desert cymopterus (*Cymopterus deserticola*), or Barstow woolly sunflower (*Eriophyllum mohanense*) were observed during the field survey and are not expected due to the lack of suitable habitat. No other state or federally listed species are expected to occur within the proposed project area. No wetlands or riparian vegetation were observed in the study area. The study area was located within the Amargosa Creek wash system.

Recommended Protection Measures:

An area that has any of the following characteristics which will be impacted by development: distinct bed, bank, channel, signs of scouring, evidence of water flow, may require a Lake and Streambed Alteration Agreement (LSA) from the California Department of Fish and Wildlife (CDFW) prior to development activities. This project will require consultation with CDFW to determine whether an LSA is required. A jurisdictional delineation of the wash system may be required as part of the LSA process. It would be determined through the LSA process whether mitigation for the wash system is required. Consultation with Lahontan Water Quality Control Board (LWQCB) may be required to determine the need for a Section 401 water quality permit. This project may be able to use the LWQCB's General Permit R6T-2003-0004 for minor streambed lakebed alteration projects. The federal Clean Water Act is not applicable to this project.

Significance: Given the adjacent land uses, and highly impacted condition of the study area this project would not result in a significant adverse impact to biological resources with implementation of mitigation measures.

Development has been proposed for APNs 3114-012-029, 064, 066 (Figure 1). Development would include installation of access roads, parking, and utilities (water, sewer, electric, etc.). The entire project area would be graded prior to construction activities.



An environmental analysis should be conducted prior to any development project. An assessment of biological resources is an integral part of environmental analyses (Gilbert and Dodds 1987). The purpose of this study was to provide an assessment of biological resources potentially occurring within or utilizing the study site. Specific focus was on the presence/absence of protected, rare, threatened, and endangered species of plants and wildlife that would be expected to use the existing habitat. Species of concern included the desert tortoise (*Gopherus agassizii*), Mohave ground squirrel (*Xerospermophilus mohavensis*), desert kit fox (*Vulpes macrotis*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), Crotch's bumblebee (*Bombus crotchii*), Joshua tree (*Yucca brevifolia*), alkali mariposa lily (*Calochortus striatus*), desert cymopterus (*Cymopterus deserticola*), Rosamond eriastrum (*Eriastrum rosamondense*), and Barstow woolly sunflower (*Eriophyllum mohanense*).

Study Area

The approximately 11 acre (4.5 ha) study area was located east of 25th Street West and south of Avenue H, T7N, R12W, a portion of the N1/2 of the NW1/4 of the NE1/4 of Section 8, S.B.B.M. (Figure 2). Avenue H formed the northern boundary of the study site. The Antelope Valley (AV) Fairgrounds were located north of Avenue H (Figure 3). Avenue H-2 formed the southern boundary of the study area. The western boundary of the study area was formed by 25th Street West. California juniper (*Juniperus californica*) tree and shadscale (*Atriplex confertifolia*) habitat existed south and west of these areas. The Avenue H retention basin for the Amargosa Creek wash system existed a short distance to the northeast of the study site. Highway 14 was situated east of the study area.

Methods

Line transects were conducted to determine habitat suitability for sensitive species and inventory plant and wildlife species occurring within the study site (Cooperrider et al. 1986, Davis 1990). Line transects were randomly walked throughout the study area and focus observations were conducted in areas with patches of vegetation (U.S. Fish & Wildlife Service 2010). The California Department of Fish and Game (2012) prepared recommendations for burrowing owl survey methodology. This guidance was used in developing the survey methodology appropriate for this specific study site. The entire site was surveyed, and adjacent areas were evaluated for burrowing owls (CDFG 2012). A habitat assessment was conducted for Mohave ground squirrels to determine whether habitat was present for the species (CDFW 2019, Leitner and Leitner 2017).

All observations of plant and animal species were recorded in field notes. Field guides were used to aid in the identification of plant and animal species (Arnett and Jacques 1981, Blatt 2019, Borror and White 1970, Burt and Grossenheider 1976, Gould 1981, Jaeger 1969, Knobel 1980, Robbins et al. 1983, Stark 2000). Observations were aided with the use of 10x42 binoculars. Observations of animal tracks, scat, and burrows were also utilized to determine the presence of wildlife species inhabiting the study site (Cooperrider et al. 1986, Halfpenny 1986, Lowrey 2006, Murie 1974). Historical aerial photographs, California Natural Diversity Database (2024a-b), eBird (2025), and USGS topographic map were reviewed. Photographs of the study area were taken (Figure 4).

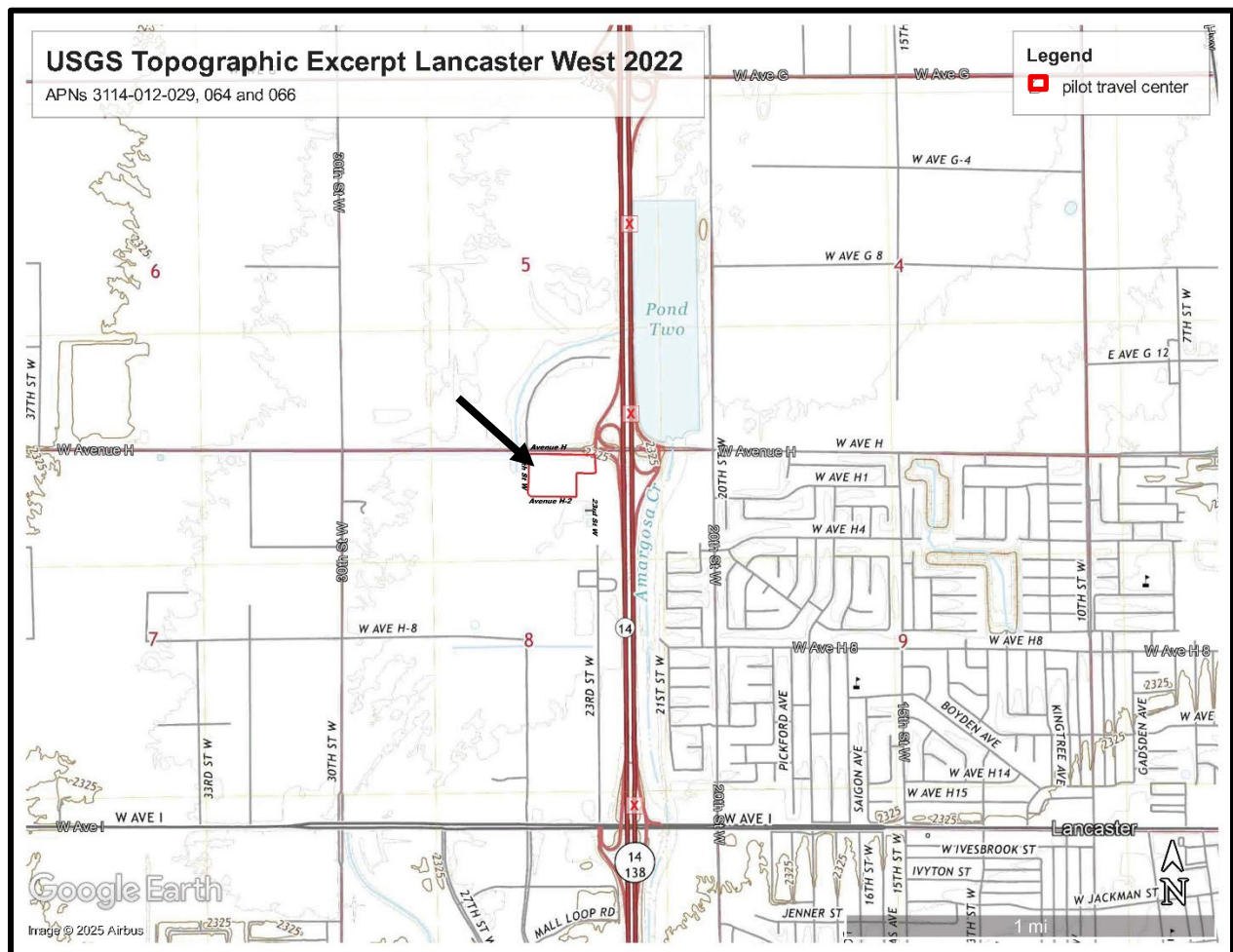


Figure 2. Approximate location of study area as depicted on excerpt from USGS Quadrangle, Lancaster West, California, 7.5' 2022.

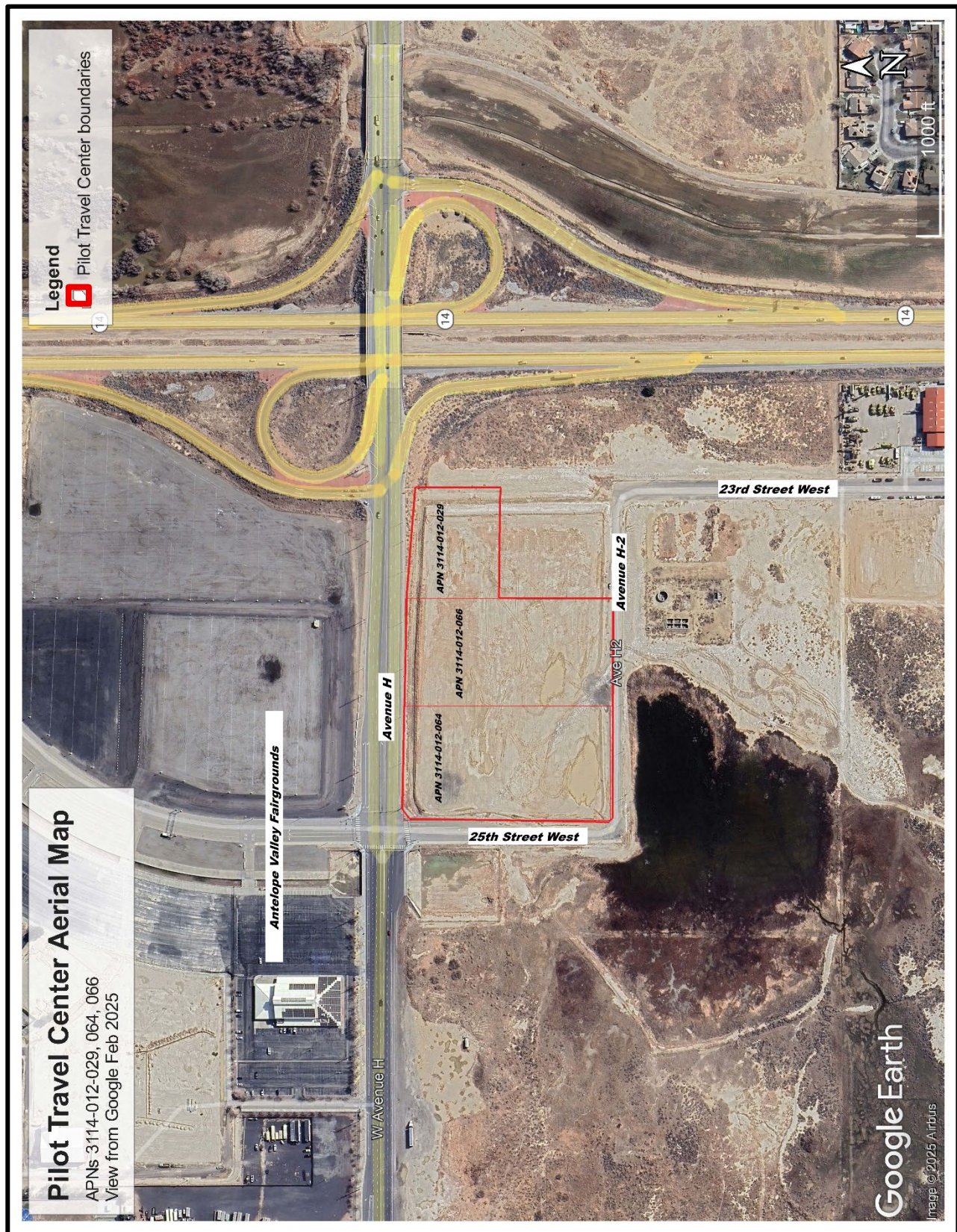


Figure 3. Approximate location of study area, Google Earth 2025, showing surrounding land use.



Figure 4. Representative photographs of the study area.

Results

Line transects were walked on 24 May 2025. Weather conditions consisted of warm temperatures (estimated 70 degrees F), 1% cloud cover, and moderate winds. No blue line streams were found on the 2022 USGS topographic map within the study area. Aerial photography did indicate potential for ephemeral washes and ponded water within the study area. Clay surface soil textures were observed throughout the study area. Surface soil cracks were common throughout the study area. Surface soil cracks are an indication of long-standing ponded water (U.S. Army Corps of Engineers 2008). Topography of the site was approximately 2,325 feet (709 m) above sea level. A drain was observed in the southwest corner that connects to ponded areas to the south and west of the study areas. Drainage channels were observed along the eastern boundary of the study area and along the south side of Avenue H.

The study area was characteristic of a highly disturbed field. The study area was probably once characteristic of a California juniper (*Juniperus californica*) tree and shadscale (*Atriplex confertifolia*) habitat with clay pan and dune topography (Barbour et al. 2007). A total of 17 plant species were observed during the line transect survey (Table 1). Allscale (*Atriplex polycarpa*) was observed along Avenue H. The remainder of the study area was devoid of perennial shrub species. The dominant annual plant species within the study area consisted of grasses. Alkali mariposa lilies and Rosamond eriastrum were not observed, but they have been observed within the vicinity of the study area. Suitable habitat for alkali mariposa lily and Rosamond eriastrum was present south and west of the study area. No Joshua trees, Rosamond eriastrum, desert cymopterus, or Barstow woolly sunflowers were observed within the study area.

A total of eight wildlife species, or their sign were observed during the line transect survey (Table 2). No desert tortoises or their sign were observed during the field survey. No burrowing owls or their sign were observed within the study site. No suitable habitat for Mohave ground squirrels was present within the study area. No desert kit foxes, or their sign were observed during the field survey. No bumble bees were observed during the field survey. No Swainson's hawks were observed during the field survey. No nesting for Swainson's hawk has been documented within 5 miles over the last 5 years of the study site (eBird 2024). The study area is listed as a birding hotspot (eBird 2025). Data in eBird (2025) has documented 105 different bird species observed at this location. Goose droppings were observed within the site where low grasses were observed during the field survey. Previous sightings over the years have been made with ponded water in the study area. Various waterfowl and shorebirds have been sighted in the study area.

The study area has been graded and marked with paint for use as overflow parking for the AV Fairgrounds. A small amount of scattered trash was observed within the study area.

Discussion

It is likely that most annual species were visible during the time the field survey was performed. Although not observed, several wildlife species would be expected to occur within the study area (Table 3). Human impacts are expected to increase as urban development continues to occur in the area. Birds are expected to survive, but they will have less roosting and foraging habitat available. There is no designated critical habitat

Table 1. List of plant species that were observed during the line transect survey of APNs 3114-012-029, 064, 066, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Allscale	<i>Atriplex polycarpa</i>
Silverscale	<i>Atriplex argentea</i>
Five-hook bassia	<i>Bassia hyssopifolia</i>
Russian knapweed	<i>Rhaponticum repens</i>
Russian thistle	<i>Salsola iberica</i>
Prickly lettuce	<i>Lactuca seriola</i>
Pineapple weed	<i>Matricaria discoidea</i>
Perennial pepperweed	<i>Lepidium latifolium</i>
Desert straw	<i>Stephanomeria pauciflora</i>
Prostrate knotweed	<i>Polygonum aviculare</i>
Yellow sweet clover	<i>Melilotus indicus</i>
Red stemmed filaree	<i>Erodium cicutarium</i>
Tansy mustard	<i>Descurainia sophia</i>
Oats	<i>Avena sativa</i>
Foxtail barley	<i>Hordeum leporinum</i>
Red brome	<i>Bromus rubens</i>
Cheatgrass	<i>Bromus tectorum</i>

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of APNs 3114-012-029, 064, 066, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
California ground squirrel	<i>Citellus beecheyi</i>
Canada goose	<i>Branta canadensis</i>
Common raven	<i>Corvus corax</i>
Swallow sp.	Family: Hirundinidae
Say's phoebe	<i>Sayornis saya</i>
Horned lark	<i>Eremophila alpestris</i>
Ants	Order: Hymenoptera
Beetle	Order: Coleoptera

Table 3. List of wildlife species that may occur within the proposed study area, APNs 3114-012-029, 064, 066, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Coyote	<i>Canis latrans</i>
Domestic dog	<i>Canis familiaris</i>
Mallard	<i>Anas platyrhynchos</i>
Gadwall	<i>Anas strepera</i>
Shorebirds	Order: Charadriiformes
American Avocet	<i>Recurvirostra americana</i>
Black-necked stilt	<i>Himantopus mexicanus</i>
Gull sp.	Family: Laridae

within the study area. There are no local or regional ordinances that pertain to the biological resources other than those addressed within this report. There were no indications of migratory wildlife corridors existing within the study area. However, the study area is located within the Pacific Flyway for migratory birds.

The desert tortoise is a state endangered and federal threatened listed species. The study site was located within the geographic range of the desert tortoise. The study site was not located in critical habitat designated for the Mojave population of the desert tortoise. Desert tortoises were not present within the study area. No protection measures are recommended for desert tortoises.

The Mohave ground squirrel (MGS) is a state listed threatened species. MGS habitat consists of a variety of desert scrub habitats, to include a specific assemblage of required shrub and annual species within those habitats (CDFW 2019, Leitner and Leitner 2017). None of the required habitat elements occur within, adjacent, or near the project site. MGS are not present within the study area. No protection measures are recommended for MGS.

Burrowing owls are a candidate species for listing as threatened or endangered by the California Department of Fish and Wildlife (CDFW). No burrowing owls or their sign were observed within the study area. No potential future cover sites for burrowing owls were observed within the study area. No protection measures are recommended for burrowing owls.

Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. Vegetation within the study site is not suitable for nesting migratory birds. Ground nesting by birds is not expected due to a lack of sufficient substrate and vegetative cover. Based on observations of birds over time it appears this area is an important roosting and feeding location for birds (Figure 5). Construction on this site will eliminate roosting and foraging resources for birds. Swainson's hawk observations noted on eBird are strongly correlated with



Figure 5. Photograph of study area looking east depicting standing water and gulls. Photograph taken on January 2, 2026.

large open fields, active agricultural fields, and areas of water (eBird 2025). Although Swainson's hawks have been documented at the Avenue H retention basin no Swainson's hawk nests have been documented there or within 5 miles of the study over the last 5 years (CNDDDB 2024a-b, eBird 2025). No protection measures are recommended for nesting migratory birds or Swainson's hawk.

Crotch's bumble bees are a candidate species for listing as state threatened or endangered. Crotch's bumble bee has a life cycle based on the survival of the queens produced each year. The colony completely dies out each year except for the new queens. The new queens hibernate and restart individual colonies in the spring. Having enough floristic resources during a colony's entire life span is imperative to ensuring the new queen's survival to mate, hibernate, and start a new colony. If flowers have died out and no perennials are blooming the colony is left with no way to persist. Due to a lack of floristic resources, Crotch's bumble bee is not expected to occur within the study area. No protection measures are recommended for Crotch's bumble bee.

Habitat adjacent and downstream from the project site and within the Amargosa Creek drainage system are crucial to the persistence of rare plant populations such as alkali mariposa lily and Rosamond eriastrum. Incrementally alkali mariposa lily and Rosamond eriastrum habitat is being removed as development occurs and reduces or diverts ephemeral stream flow in the valley. Alkali mariposa lilies and Rosamond eriastrum may have been present, but it is expected they have been extirpated from the study area due to extensive and routine grading and use as a parking lot. Based on the results of the field survey no sensitive plant species are expected to occur within the study area and no protection measures are recommended. No other state or federal listed species are expected to occur within the study site (CNDDDB 2025a-b).

The CDFW administers the Fish and Game Code Section 1602, Lake and Streambed Alteration Program. The entire study area is situated within the bed of a main channel of Amargosa Creek drainage system. Although the study area has been modified over time, water routinely ponds and provides habitat for waterfowl and shorebirds. Large, deeply incised channels occurred along the eastern and northern boundaries of the study area. Any project that may impact a water resource either by changing its course or depositing material into it is required to be reviewed under Section 1602. This site may be regulated as Waters of the State under Porter Cologne and require review by Lahontan Water Quality Control Board (LWQCB) under the 401 process.

Landscape design should incorporate the use of native plants to the maximum extent feasible. Native plants that have food and cover value to wildlife should be used in landscape design (Adams and Dove 1989). Diversity of native plants should be maximized in landscape design (Adams and Dove 1989).

Recommended Protection Measures:

An area that has any of the following characteristics which will be impacted by development: distinct bed, bank, channel, signs of scouring, evidence of water flow, may require a Lake and Streambed Alteration Agreement (LSA) from the California Department of Fish and Wildlife (CDFW) prior to development activities. This project will require consultation with CDFW to determine whether an LSA is required. A jurisdictional delineation of the wash system may be required as part of the LSA process. It would be determined through the LSA process whether mitigation for the wash system is required. Consultation with Lahontan Water Quality Control Board (LWQCB) may be required to determine the need for a Section 401 water quality permit. This project may be able to use the LWQCB's General Permit R6T-2003-0004 for minor streambed lakebed alteration projects. The federal Clean Water Act is not applicable to this project.

Significance: Given the adjacent land uses, and highly impacted condition of the study area this project would not result in a significant adverse impact to biological resources with implementation of mitigation measures.

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