Biological Resource Assessment of
APN 3114-012-020
Lancaster, California

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Abstract

Development has been proposed for APN 3114-012-020, Lancaster, California. The approximately 4.5 acre (1.8 ha) study area was located south of Avenue H and west of 25th Street West, T7N, R12W, a portion of the NE1/4 of the NE1/4 of the NW1/4 of Section 8, S.B.B.M. A line transect survey was conducted on 1 March 2022 to inventory biological resources. The proposed project area was characteristic of a parking area and highly disturbed halophytic saltbush (*Atriplex* spp.) scrub habitat with clay pan and dune topography. A total of 18 plant species and 12 wildlife species or their sign were observed during the line transect survey. No desert tortoises (*Gopherus agassizii*) or their sign were observed during the field survey. The proposed project site was not located within the geographic range of the Mohave ground squirrel (*Xerospermophilus mohavensis*). No Mohave ground squirrels have been observed or documented within western Lancaster in the last 30 years. No burrowing owls (*Athene cunicularia*) or their sign was observed during the field survey. No potential burrowing owl cover sites were observed within the study site. No desert kit foxes (*Vulpes macrotis)* or their sign were observed within the study site. Vegetation within the study area provides potential nesting sites for smaller migratory birds. Swainson's hawk (*Buteo swainsoni*) and other raptors may fly over but would not be expected to nest within the study area due to a lack of suitable nesting habitat. Foraging for raptors is considered very marginal. Swainson's hawk have been documented at Apollo Park to the north and Avenue H, Pond 2 northeast of the study area. No nesting of Swainson's hawks has been documented within 5 miles in the last 5 years. Suitable habitat appeared to be present for Northern California legless lizards (*Anniella pulchra*). Suitable habitat appears to be present for alkali mariposa lily (*Calochortus striatus*) within a portion of the study site. No other sensitive plants, specifically, Joshua tree (*Yucca brevifolia*), Rosamond eriastrum (*Eriastrum rosamondense)*, desert cymopterus (*Cymopterus deserticola*), or Barstow woolly sunflower (*Eriophyllum mohanense*) were observed during the field survey or expected due to the lack of suitable habitat. No other state or federally listed species are expected to occur within the proposed project area. The study site is located within the Amargosa Creek Drainage (ephemeral wash system). Ephemeral washes, and clay pans were observed within the study area.

Recommended Protection Measures:

If possible, removal of vegetation will occur outside the breeding season for migratory birds. Breeding generally lasts from February to July but may extend beyond this time frame. If vegetation removal will occur during or close to the nesting season, a qualified biologist will survey all potential nesting areas to be disturbed as close as possible but no more than one week prior to removal. If active bird nests are found, impacts to nests will be avoided by either delaying work or establishing initial buffer areas of a minimum of 50 feet around active migratory bird species nests. The project biologist will determine if the buffer areas should be increased or decreased based on the nesting bird response to disturbances.

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 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 would be required as part of the LSA process. It would be determined through the LSA process whether mitigation for the wash system is required. Northern California legless lizard and alkali mariposa lily can be part of any wash mitigation and addressed during the LSA process. 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 because the federal Clean Water Act is not applicable.

Significance: This project would not result in a significant adverse impact to biological resources given its small size, high disturbance level, adjacent disturbed areas, and ongoing impacts.

Development has been proposed for APN 3114-012-020 (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 proposed project area. Specific focus was on the presence/absence of rare, threatened and endangered species of plants and wildlife. Species of concern included the desert tortoise (*Gopherus agassizii*), Mohave ground squirrel (*Xerospermophilus mohavensis*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), desert kit fox (*Vulpes macrotis)*, Northern California legless lizard (*Anniella pulchra*), Joshua tree (*Yucca brevifolia*), desert cymopterus (*Cymopterus deserticola*), Barstow woolly sunflower (*Eriophyllum mohanense*), Rosamond eriastrum (*Eriastrum rosamondense)*, and alkali mariposa lily (*Calochortus striatus*).

Study Area

The approximately 4.5 acre (1.8 ha) study area was located south of Avenue H and west of 25th Street West, T7N, R12W, a portion of the NE1/4 of the NE1/4 of the NW1/4 of Section 8, S.B.B.M. (Figures 2 and 3). The northern boundary of the project site was formed by Avenue H. The Antelope Valley Fairground was north of Avenue H. A dirt and asphalt parking lot and disturbed halophytic scrub habitat were present west of the study site. Two drainage basins were present east of the study site boundary. Highway 14 was present east of the drainage basins. Highly disturbed halophytic scrub habitat and historical pond remnants were present south and southeast of the study site. Topography of the site ranged from approximately 2,303 to 2,315 feet (702 to 706 m) above sea level.

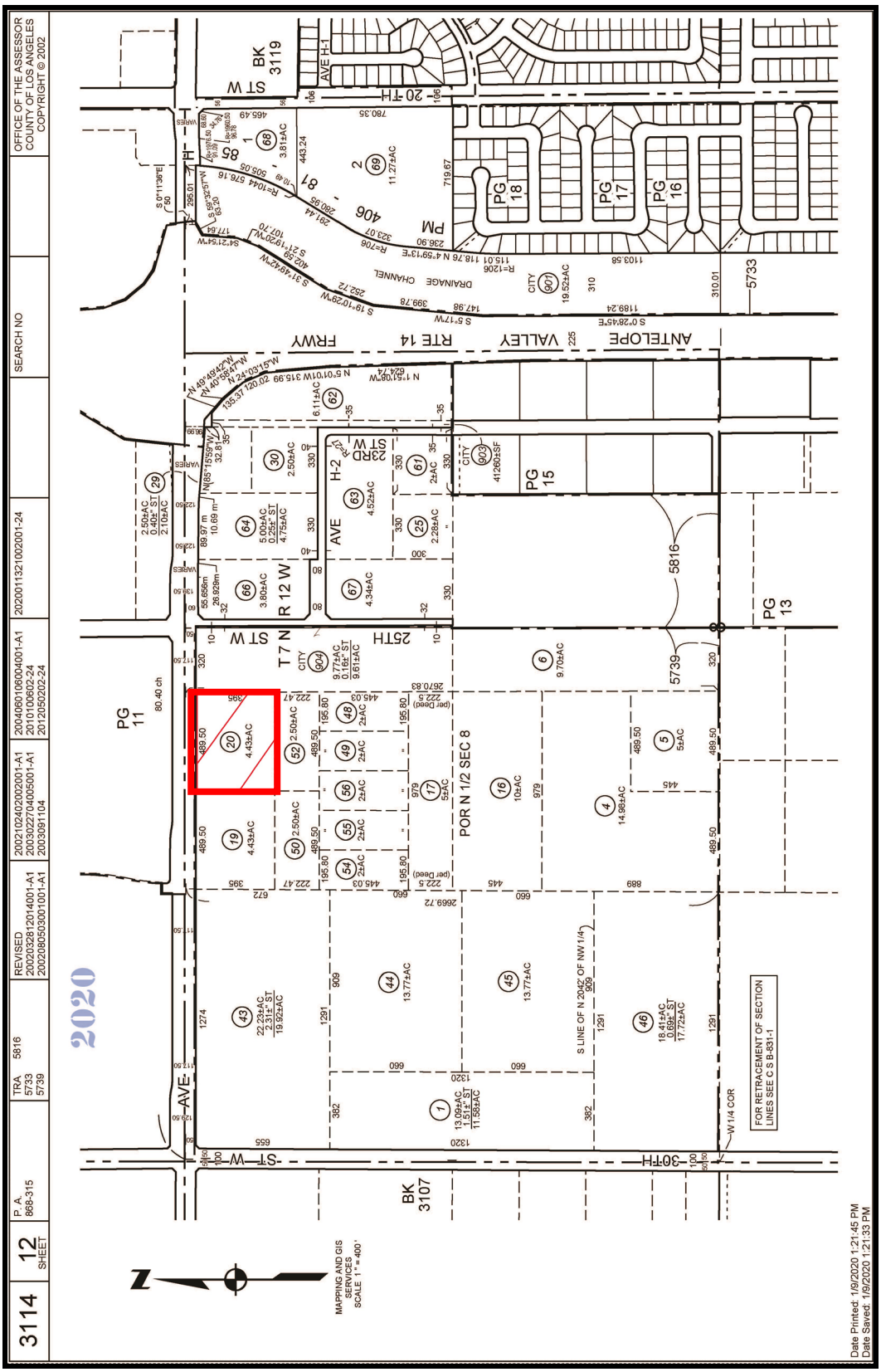

Figure 1. Location of proposed project site as depicted on APN map.

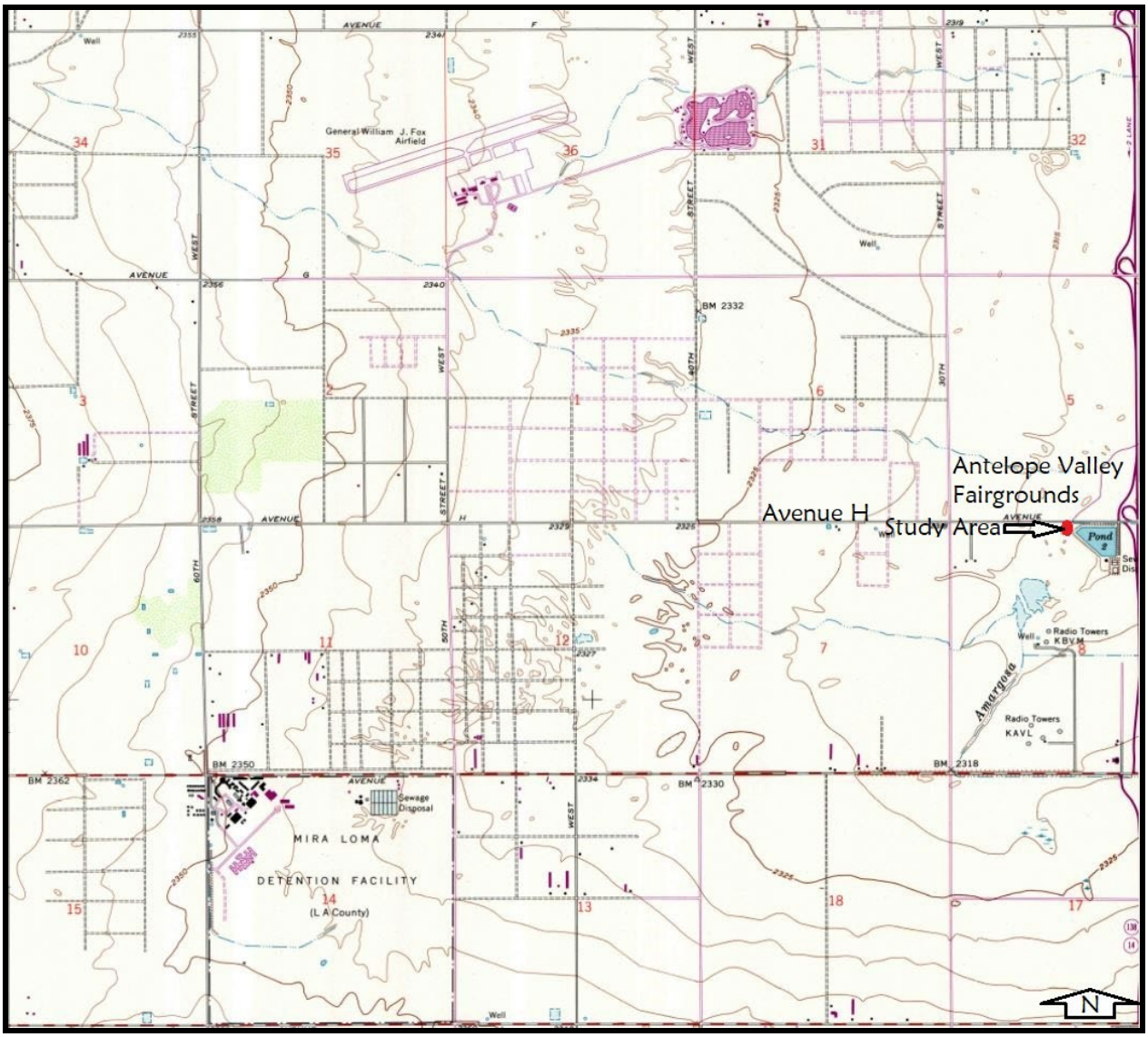

Figure 2. Approximate location of study area as depicted on U.S.G.S. Quadrangle, Lancaster West, Calif., 7.5', 1974.

Figure 3. Approximate location of study area showing surrounding land use as depicted on excerpt from Google Earth Aerial Photography, April 2017.

Methods

A line transect survey was conducted to inventory plant and wildlife species occurring within the proposed project area (Cooperrider et al. 1986, Davis 1990). The USFWS (2010) has provided recommendations for survey methodology to determine presence/absence and abundance/distribution of desert tortoises. Line transects were walked in a north-south orientation. Line transects were approximately 490 feet (149 m) long and were spaced approximately 50 feet (15 m) apart (U.S. Fish & Wildlife Service 2010). The California Department of Fish and Game (2012) prepared recommendations for burrowing owl survey methodology. Consistent with the survey protocol the entire site was surveyed and adjacent areas were evaluated (CDFG 2012). A habitat assessment was conducted for Mohave ground squirrels (MGS) to determine whether habitat was present for the species (CDFW 2019).

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, 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 proposed project area (Cooperrider et al. 1986, Halfpenny 1986, Lowrey 2006, Murie 1974). Historical aerial photographs and the USGS topographic map of the study area and surrounding vicinity were reviewed. Review of documented sightings was accomplished using the California Natural Diversity Database (CNDD) (Lancaster West 2020) and eBird.org. Previous surveys in the area (Hagan 2017a-b, 2020, 2021, 2022) were reviewed for historical sightings and background information. Photographs of the study site were taken (Figures 4 and 5).

Results

A total of 8 line transects were walked on 1 March 2022. Weather conditions consisted of warm temperatures (estimated 75 degrees F), 5% cloud cover, and a slight breeze. Clay sandy loam and silty clay surface soil textures were observed within the study area. Compacted soils and broken asphalt were observed within the northwest portion (approximately 1.5 acres (0.5 ha)) of the study area. The USGS topographic map did not indicate a blue line stream was present within the study area. Aerial photography indicated the potential for clay pans within the study site. The study site is within the Amargosa Creek Drainage (ephemeral wash system). Clay pans and interconnected washes were observed within the study area. Aerial photography indicated 3.5 acres (1.5 ha) out of the 4.5 acre (1.8 ha) study area had been heavily impacted and nearly denuded of all vegetation.

The proposed project area was characteristic of a parking area and highly disturbed halophytic saltbush (*Atriplex* spp.) scrub habitat with clay pan and dune topography (Barbour et al. 2007). A total of 18 plant species were observed during the line transect survey (Table 1). Shadscale (*Atriplex confertifolia*) was the dominant perennial shrub species throughout the study area. Red stemmed filaree (*Erodium cicutarium*) was the dominant annual species throughout the study area. Although no alkali mariposa lily skeletons were observed, suitable habitat

Figure 4. Representative photographs depicting general site characteristics. Top photograph is from the northwest corner looking east. Bottom photograph is from southeast corner looking northwest.

Figure 5. Representative photographs depicting general site characteristics. Top photograph looking from southwest corner looking towards northeast. Bottom is from south central portion of the site.

Table 1. List of plant species that were observed during the line transect survey of APN 3114-012-020, Lancaster, California.

Common Name	Scientific Name
Desert olive	*Forestiera pubescens*
Shadscale	*Atriplex confertifolia*
Rabbit brush	*Chrysothamnus nauseosis*
Nevada saltbush	*Atriplex torreyi*
Spotted buckwheat	*Eriogonum maculatum*
Desert straw	*Stephanomeria pauciflora*
Inkweed	*Suaeda torreyana*
Alkali pink	*Nitrophila occidentalis*
Saltgrass	*Distichlis spicata*
Black-eyed susan	*Rudbeckia hirta*
Nevada blue grass	*Poa secunda*
Red stemmed filaree	*Erodium cicutarium*
Fiddleneck	*Amsinckia tessellata*
Annual burweed	*Franseria acanthicarpa*
Five-hook bassia	*Bassia hyssopifolia*
Russian thistle	*Salsola iberica*
Yellow star thistle	*Centaurea melitensis*
Cheatgrass	*Bromus tectorum*

appeared to be present within the study site. Multiple observations of alkali mariposa lilies are noted in the CNDD for this general area. No Barstow woolly sunflowers, Rosamond eriastrum, Joshua trees, or desert cymopterus, or suitable habitat were observed within the study site.

A total of 12 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 during the field survey. No potential cover sites for burrowing owl were present within the study site. California ground squirrel (*Citellus beecheyi*) scat was observed within the study site but no burrows were present. Desert kit foxes were not observed within the study site. No bird nests were observed within the study site. No Northern California legless lizards were observed however suitable habitat appeared to be present within the study area.

Semi trucks were observed parked within the northwest portion of the study site. Two trash dumps were present within the study site. Scattered litter and debris were observed within the study site. Vehicle and other heavy equipment tracks were observed within the study site.

Discussion

It is possible that some annual species were not visible during the time the field survey was performed. The heavy disturbance which occurred between July and December 2011 may have been a fire that removed nearly all vegetation within 3.5 acres (1.8 ha). Two acres of the 3.5 acres impacted have revegetated. Revegetation in desert areas is typically a slow process if it occurs at all. The area to the south of the study site appears to be in a low area within the Amargosa Creek system. The revegetation that has taken place may indicate influence from underground, as well as, surface water flow. Although not observed, several wildlife species would be expected to occur within the proposed project area (Table 3).

Human impacts are expected to increase as urban development continues to occur in the area. Burrowing animals within the proposed project area are not expected to survive construction activities. More mobile species, such as lagomorphs (rabbits and hares), coyotes (*Canis latrans*), and birds are expected to survive, but they will have less cover and foraging habitat available. Sensitive plant species are expected to be locally extirpated as upstream ephemeral washes are diverted.

The desert tortoise is a state endangered and federally listed threatened species. The proposed project area was located within the geographic range of the desert tortoise. The proposed project site was not located in critical habitat designated for the Mojave population of the desert tortoise. Based on field observations, desert tortoises are not present within the study area. No protection measures are recommended for desert tortoises.

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of APN 3114-012-020, Lancaster, California.

Common Name	Scientific Name
Rodents	Order: Rodentia
Pocket gopher	*Thomomys bottae*
California ground squirrel	*Citellus beecheyi*
Desert cottontail	*Sylvilagus auduboni*
Black-tailed jackrabbit	*Lepus californicus*
Coyote	*Canis latrans*
Rock dove	*Columba livia*
Common raven	*Corvus corax*
Northern mockingbird	*Mimus polyglottos*
Horned lark	*Eremophila alpestris*
House finch	*Carpodacus mexicanus*
White crowned sparrow	*Zonotrichia leucophrys*

Table 3. List of wildlife species that may occur within the study area, APN 3114-012-020, Lancaster, California.

Common Name	Scientific Name
Deer mouse	*Peromyscus maniculatus*
Kangaroo rat	*Dipodomys* sp.
California quail	*Callipepla californica*
Mourning dove	*Zenaida macroura*
Say's phoebe	*Sayornis saya*
Western meadowlark	*Sturnella neglecta*
Sage sparrow	*Amphispiza belli*
Mojave rattlesnake	*Crotalus scutulatus*
Gopher snake	*Pituophis melanoleucus*
Side blotched lizard	*Uta stansburiana*
Western whiptail	*Cnemidophorus tigris*
Northern California legless lizard	*Anniella pulchra*
Fairy Shrimp	*Branchinecta* spp.
Water boatman	Corixa sp.
Grasshopper	Order: Orthoptera
Dragonfly	Order: Odonata
Spider	Order: Araneida
Ants, small, red	Order: Hymenoptera
Trapdoor spider	Family: Ctenizidae
Painted lady butterfly	*Vanessa cardui*
Cabbage white butterfly	*Pieris rapae*

The Mohave ground squirrel is a state listed threatened species. The proposed project area was not located within the geographic range of the Mohave ground squirrel. The western limit of the geographic range of the Mohave ground squirrel is currently thought to be Highway 14. No Mohave ground squirrels have been documented in the past 30 years on the west side of Lancaster (CNDD 2020). No mitigation for this species is recommended.

Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. Swainson's hawk and other raptors would not nest within the study area given the lack of nesting sites. Swainson's hawk and other raptors may fly over the study site but forage would be expected to be limited and discouraged due to presence of semi trucks. Observations of Swainson's hawks have been documented regularly at Apollo Park to the north and Avenue H, Pond 2 to the northeast (eBird 2022). No nesting Swainson's hawk have been documented during the last 5 years within 5 miles of the study site (eBird 2022). Smaller migratory birds may potentially nest in the shrubs within the study site.

Northern California legless lizards are considered a species of special concern by CDFW. The study site contains potentially suitable habitat for Northern California legless lizards. Mitigation, if required, could be combined with any mitigation that may be required for ephemeral desert washes.

The alkali mariposa lily is considered a sensitive plant species by CDFW. Habitat for this species existed within and to the south and southwest portion of the study area. Mitigation, if required, could be combined with any mitigation that may be required for ephemeral desert washes.

No other state or federally listed threatened or endangered species are expected to occur within the proposed project area (California Department of Fish and Wildlife 2019, 2020, Smith and Berg 1988, U.S. Fish & Wildlife Service 2016).

The study site was located within the Amargosa Creek Drainage (ephemeral wash system). Ephemeral drainages and connecting clay pans occurred within the study site. Halophytic plant species, and the revegetation which has occurred, may indicate sufficient water flows through and pools within the area (Figure 4).

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:

If possible, removal of vegetation will occur outside the breeding season for migratory birds. Breeding generally lasts from February to July but may extend beyond this time frame. If vegetation removal will occur during or close to the nesting season, a qualified biologist will survey all potential nesting areas to be disturbed as close as possible but no more than one week

prior to removal. If active bird nests are found, impacts to nests will be avoided by either delaying work or establishing initial buffer areas of a minimum of 50 feet around active migratory bird species nests. The project biologist will determine if the buffer areas should be increased or decreased based on the nesting bird response to disturbances.

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Significance: This project would not result in a significant adverse impact to biological resources given its small size, high disturbance level, adjacent disturbed areas, and ongoing impacts.

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