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Biological Resource Assessment of APNs 3153-008-006, 007, 010, 011, 012, 013, 014, 017 Lancaster, California

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Abstract

Residential development has been proposed for APNs 3153-008-006, 007, 010, 011, 012, 013, 014, 017. The approximately 35 acre (14 ha) study area was located west of 40th Street West and north of Lancaster Boulevard, T7N, R13W, a portion of the NE1/4 of the NE1/4 of Section 13, S.B.B.M. A line transect survey was conducted on 31 May and 1 June 2015 to inventory biological resources. The proposed project area was characteristic of a halophytic saltbush (*Atriplex* spp.) scrub habitat. A total of twenty-five plant species were observed during the line transect survey. A total of nineteen 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 and are not expected to be present within the study site. A burrowing owl (*Athene cunicularia*) was observed within the abandoned construction site west of the study site. No burrowing owl or sign was observed within the study site. A burrowing owl survey should be accomplished within 30 days prior to ground disturbing activities to ensure no burrowing owls have taken up residence in the project site. If burrowing owls are discovered during the survey, consultation should be conducted with the California Department of Fish and Wildlife (CDFW) to determine if mitigation for this species is recommended. Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. A mourning dove (*Zenaida macroura*) nest with eggs was observed under a dead shrub during the field survey. The vegetation within the study area provides nesting sites for birds. If at all possible, removal of vegetation should occur outside the breeding season (spring) for birds. If removal will occur during the nesting season, a survey should be conducted just prior to removal of the vegetation. If active bird nests are found, impacts should be avoided unless the proper permits are obtained. The proposed project site was not located within the geographic range of the Mohave ground squirrel (*Xerospermophilus mohavensis*). The habitat within the study area did not appear suitable to support Mohave ground squirrels. The alkali mariposa lily (*Calochortus striatus*) is considered a sensitive plant species by CDFW. Potential alkali mariposa lily habitat occurs within the study site. Unless mitigated, alkali mariposa lily surveys should be conducted during the appropriate season (late Apr to early May) and prior to development activities. Mitigation for alkali mariposa lily, if required, may be combined with mitigation that may be required for washes in the area. 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). Loamy washes, loamy depressions, and clay pans were observed within the study site. 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 Streambed Alteration Agreement from the CDFW prior to development activities. This area will require consultation with CDFW to determine whether a Streambed Alteration Agreement is needed.

Residential development has been proposed for APNs 3153-008-006, 007, 010, 011, 012, 013, 014, 017 (Figure 1). Development would include installation of access roads, utilities (water, sewer, electric, etc.), parking areas, etc. The entire project area would be graded prior to construction activities.

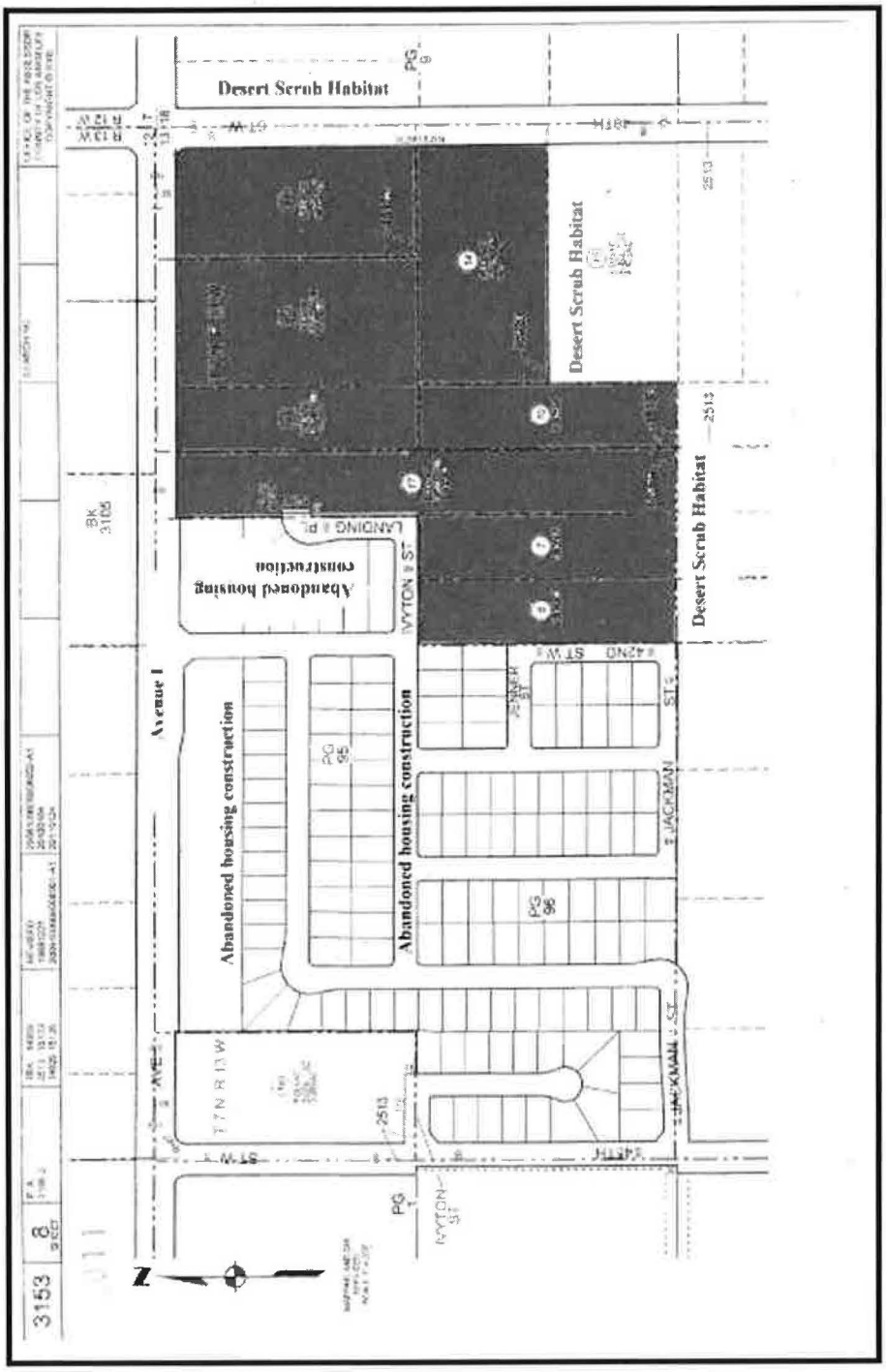


Figure 1. Approximate location of proposed project area as depicted on APN map.

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.

Study Area

The approximately 35 acre (14 ha) study area was located west of 40th Street West and north of Lancaster Boulevard, T7N, R13W, a portion of the NE1/4 of the NE1/4 of Section 13, S.B.B.M. (Figure 2). An abandoned residential construction site existed west of the study site (Figure 3). Avenue I formed the northern boundary of the study site. Desert scrub habitat and, spoil piles existed to the north of Avenue I. The eastern boundary of the study site was formed by 40th Street West. Desert scrub habitat existed east of 40th Street West. Desert scrub habitat existed to the south of the study site. Topography of the site ranged from 2,329 to 2,333 feet (751 to 753 m) above sea level.

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). Line transects were walked in an east-west orientation in the northeast portion of the study site and north-south orientation in the southwest portion of the study site. Line transects ranged from approximately 660 to 990 feet (213 to 319 m) long and spaced about 70 feet (23 m) apart in the northeast portion and approximately 660 feet (213 m) long and spaced about 65 feet (21 m) apart in the southwest portion of the study site (U.S. Fish & Wildlife Service 2010).

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 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). An aerial photograph of the study site was obtained from Google Earth (Figure 3 and 4). Representative photographs were taken of the study site (Figure 5, 6, and 7).

Results

A total of 12 line transects were walked east-west and a total of 8 line transects were walked north-south on 31 May and 1 June 2015 to inventory biological resources. Weather conditions consisted of warm temperatures (estimated 65 to 80 degrees F), 0% cloud cover, and no wind. A loam surface soil texture and sandy clay loam surface texture were characteristic throughout the study area. The study site is within the Amargosa Creek Drainage. Loamy washes and depressions, and clay pans were observed within the study site.

The proposed project area was characteristic of a halophytic saltbush (*Atriplex* spp.) scrub habitat. (Barbour and Major 1988). A total of twenty-five plant species were observed during the line transect survey (Table 1). Shadscale (*Atriplex confertifolia*) was the dominant perennial shrub species within the study site. Foxtail barley (*Hordeum leporinum*) was the

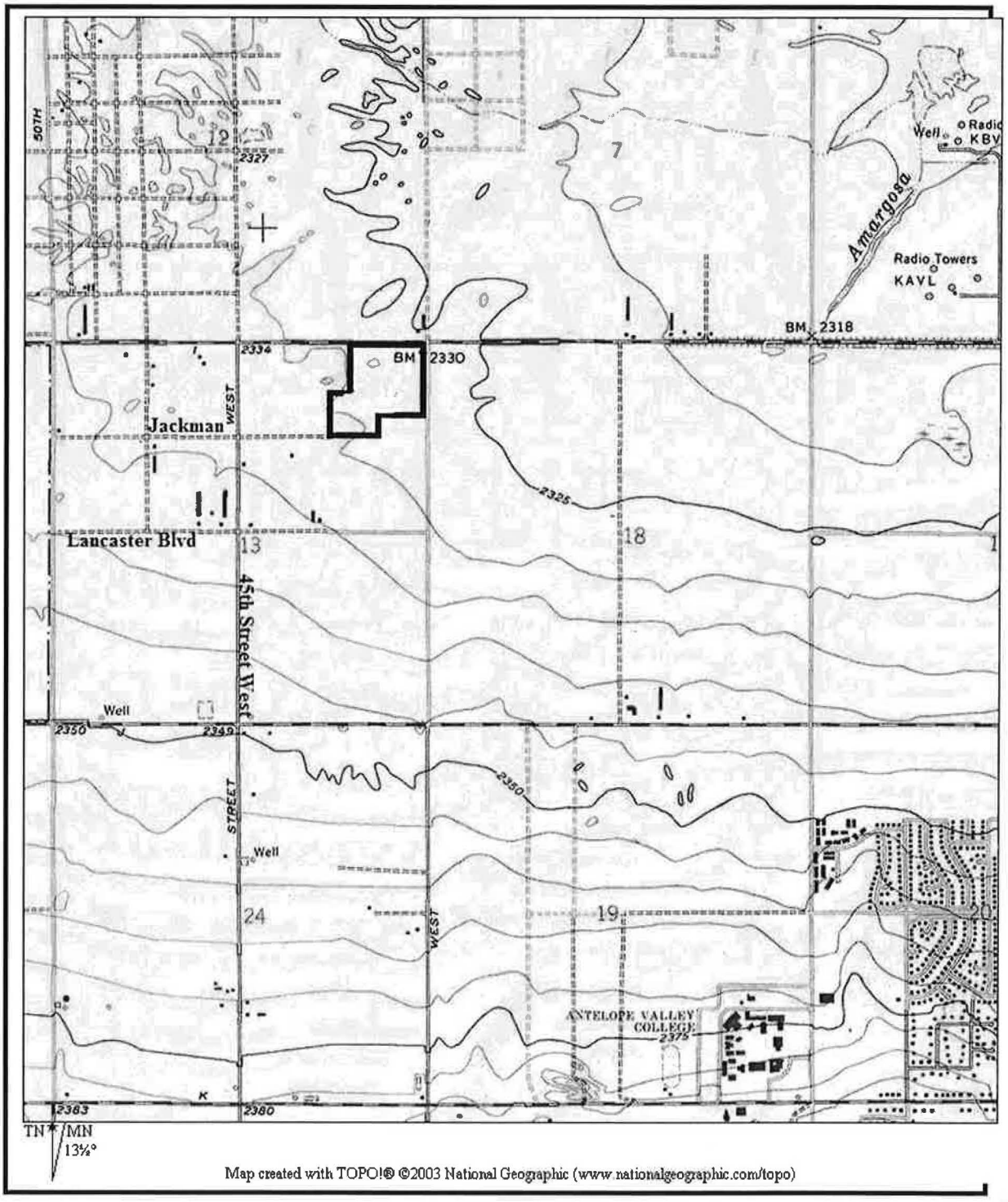


Figure 2. General location of study area as depicted on excerpt from Lancaster West, U.S.G.S., Quadrangle Map, 1974.

Figure 3. Aerial photos showing surrounding land use, 2015, Google Earth.

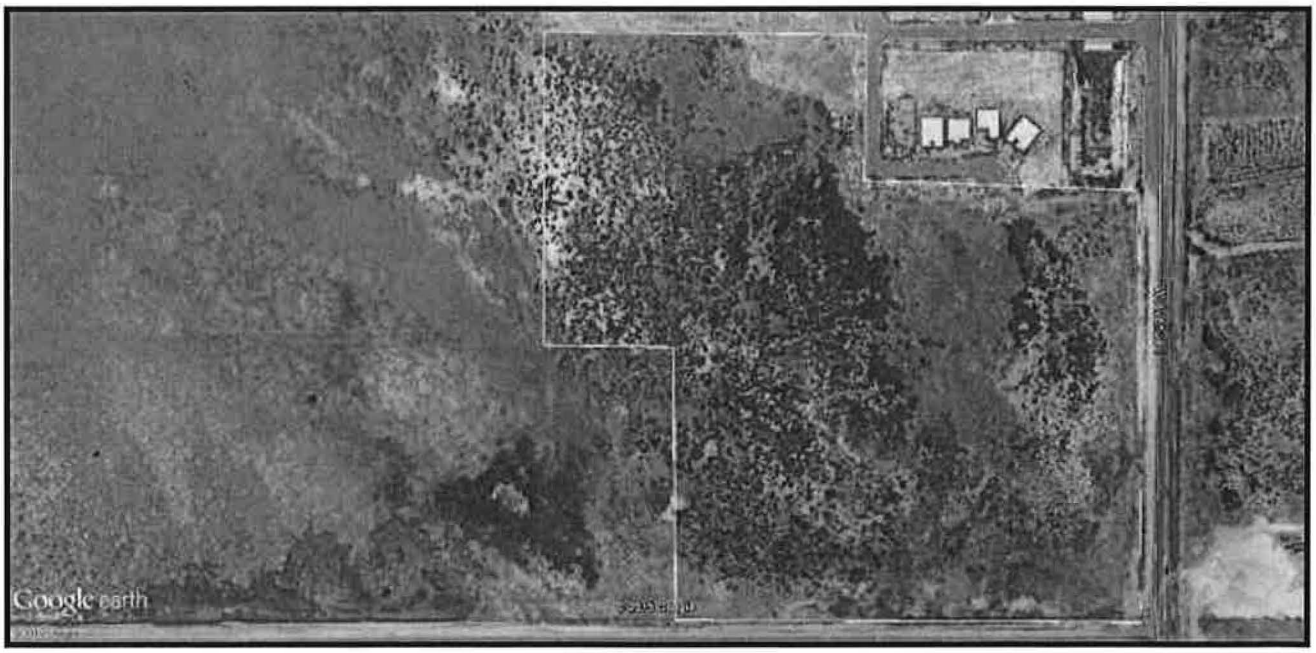
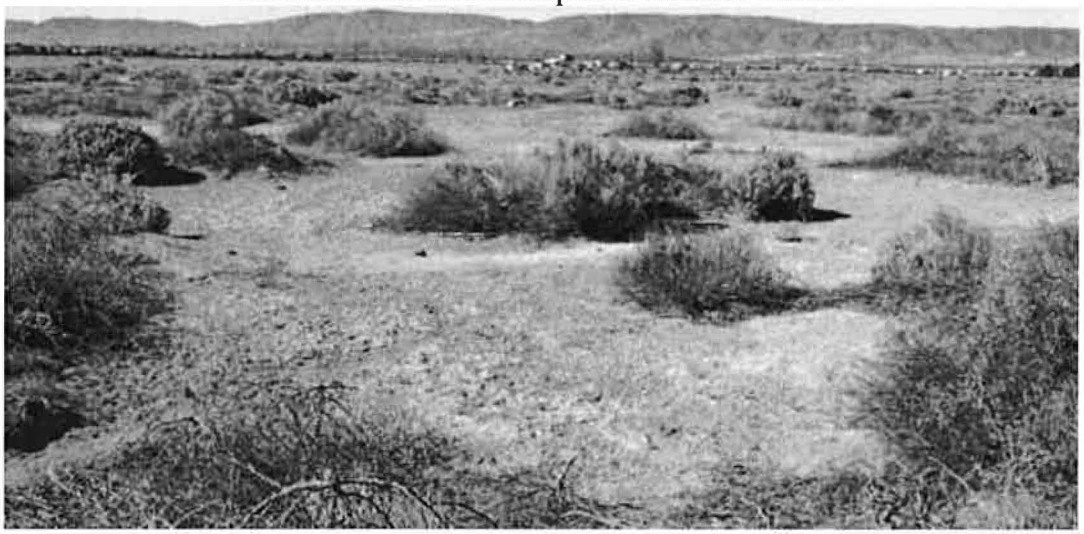
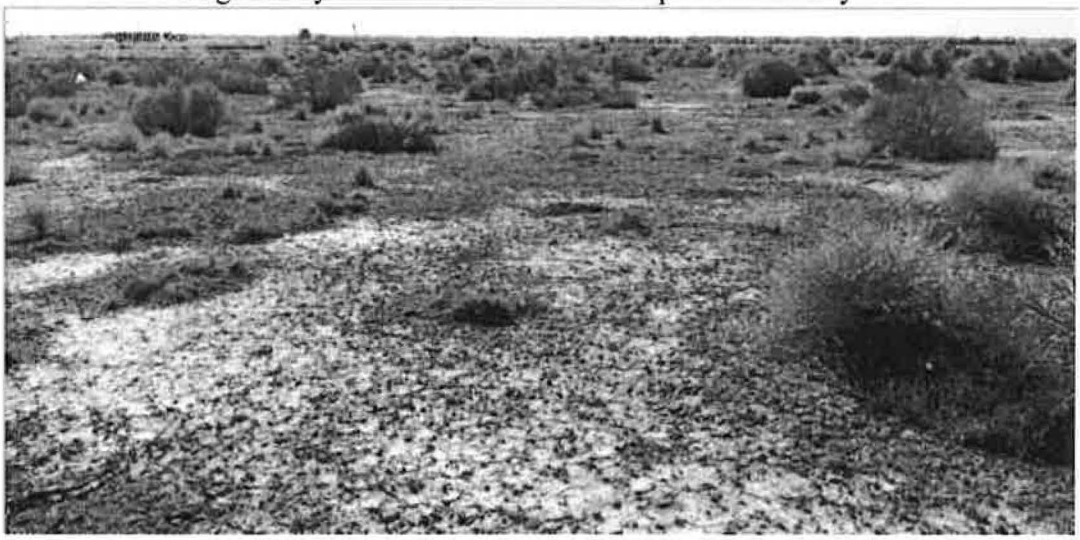


Figure 4. Aerial photo showing close up of study site, 2015, Google Earth.

Saltbush scrub area interspersed between washes

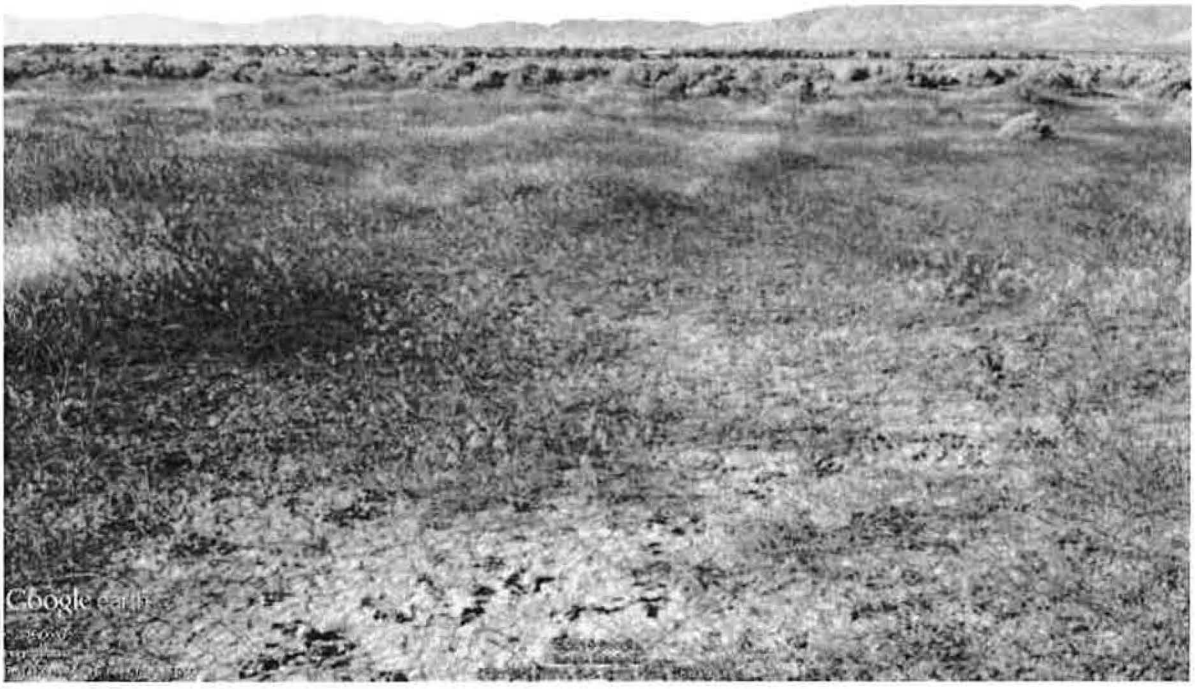


Large loamy wash in southwest central portion of study site



Clay pan area in northwest portion of study site

Figure 5. Representative photos of the study site.



Loamy pan/depression area with flat topped buckwheat as dominant plant

Grassy meadow in northeast corner near culverts

Figure 6. Representative photos of the study site.

Figure 7. Photographs depicting the placement and state of historical culvert within study area. New culverts exist at northeast corner leading under intersection of Avenue I & 40th Street East.

Table 1. List of plant species that were observed during the line transect survey of APNs 3153-008-006, 007, 010, 011, 012, 013, 014, 017, Lancaster, California.

Common Name	Scientific Name
Shadscale	*Atriplex confertifolia*
Allscale	*Atriplex polycarpa*
Desert alyssum	*Lepidium fremontii*
Silverscale	*Atriplex argentea*
Prince's Plume	*Stanleya pinnata*
Desert straw	*Stephanomeria pauciflora*
Alkali pink	*Nitrophila occidentalis*
Flat topped buckwheat	*Eriogonum plumatella*
Rattlesnake weed	*Euphorbia albomarginata*
Fiddleneck	*Amsinckia tessellata*
Comet blazing star	*Mentzelia albicaulis*
Schismus	*Schismus* sp.
Red stemmed filaree	*Erodium cicutarium*
Russian thistle	*Salsola iberica*
Tumble mustard	*Sisymbrium altisissiimum*
Mustard sp.	Brassicaceae
Five-hook bassia	*Bassia hyssopifolia*
Cheatgrass	*Bromus tectorum*
Foxtail barley	*Hordeum leporinum*
Saltgrass	*Distichlis spicata*
Alkali rye	*Elymus cinereus*
Red brome	*Bromus rubens*
Annual burweed	*Franseria acanthicarpa*
Clasping peppergrass	*Lepidium perfoliatum*
Brown-eyed susan	*Rudbeckia hirta*

dominant annual species within the study area. No sensitive plant species were observed within the study site. However, potential habitat for alkali mariposa lily (*Calochortus striatus*) was present within the study site.

A total of nineteen 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. A burrowing owl (*Athene cunicularia*) was observed within the abandoned construction area adjacent to the study site during the field survey. No other burrowing owl sign was observed within the study site. No Mohave ground squirrels were observed during the field survey.

Some scattered litter was observed within the study site. Soil piles were observed within the study site primarily along adjacent boundary with abandoned construction. Broken concrete was observed within the study site. Tire tracks were observed within the study site. An old culvert was observed within the northeast portion of the study site.

Discussion

Most annual vegetation was desiccated at the time the field survey was conducted. It is probable that some annual species were not visible during the time the field survey was performed. 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. Habitat in the general area will continue to become degraded and fragmented. 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.

The desert vegetation within the study site provides many roosting and nesting sites for birds. The structures within the abandoned construction site and the utility poles along the north boundary provide roosting and nesting areas for raptors. Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. If at all possible, destruction of vegetation should be avoided during the breeding season (spring) of birds. If vegetation removal will occur during the nesting season, a survey should be conducted within one week prior to removal. If active bird nests are found, impacts should be avoided unless the proper permits are obtained.

The desert tortoise is a state and federally listed threatened species. No desert tortoises or their sign were observed during the field survey. Based on field observations desert tortoises are not expected to occur within the study area. No mitigation for this species is recommended.

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. No mitigation for this species is recommended.

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of APNs 3153-008-006, 007, 010, 011, 012, 013, 014, 017, Lancaster, California.

Common Name	Scientific Name
Rodents	Order: Rodentia
Pocket gopher	*Thomomys bottae*
Kangaroo rat	*Dipodomys* sp.
Black-tailed jackrabbit	*Lepus californicus*
Desert cottontail	*Sylvilagus auduboni*
Coyote	*Canis latrans*
Horse	*Equus* sp.
Mourning dove	*Zenaida macroura*
Common raven	*Corvus corax*
Northern mockingbird	*Mimus polyglottos*
Horned lark	*Eremophila alpestris*
Western meadowlark	*Sturnella neglecta*
Sage sparrow	*Amphispiza belli*
Butterfly (white)	Order: Lepidoptera
Bees	Order: Hymenoptera
Funnel spider	Order: Araneida
Grasshopper	Order: Orthoptera
Cricket	Order: Orthoptera
Wasp	Order: Hymenoptera

Table 3. List of wildlife species that may occur within the study area, APNs 3153-008-006, 007, 010, 011, 012, 013, 014, 017, Lancaster, California.

Common Name	Scientific Name
Deer mouse	*Peromyscus maniculatus*
Merriam kangaroo rat	*Dipodomys merriami*
California ground squirrel	*Citellus beecheyi*
Domestic dog	*Canis familiaris*
Red-tailed hawk	*Buteo jamaicensis*
American kestrel	*Falco sparverius*
Great horned owl	*Bubo virginianus*
Burrowing owl	*Athene cunicularia*
Say's phoebe	*Sayornis saya*
House finch	*Carpodacus mexicanus*
Gopher snake	*Pituophis melanoleucus*
Mojave rattlesnake	*Crotalus scutulatus*
Side blotched lizard	*Uta stansburiana*
Western whiptail	*Cnemidophorus tigris*
Ladybird beetle	*Hippodamia convergens*
Fly	Order: Diptera
Harvester ants	Order: Hymenoptera
Dragonfly	Order: Odonata
Walking stick	Order: Orthoptera
Wolf spider	Order: Araneida

Burrowing owls are considered a species of special concern by the CDFW. No burrowing owls or their sign were observed during the survey. A burrowing owl was observed within the abandoned construction site adjacent to the study area. A burrowing owl survey should be accomplished within 30 days prior to ground disturbing activities to ensure no burrowing owls have taken up residence in the project site. If burrowing owls are discovered the CDFW should be consulted prior to construction.

The alkali mariposa lily is considered a sensitive plant species by CDFW. Potential alkali mariposa lily habitat occurs within the study site. Unless mitigated, alkali mariposa lily surveys should be conducted during the appropriate season (late Apr to early May) and prior to development activities. Mitigation for alkali mariposa lily, if required, may be combined with mitigation that may be required for washes in the area.

No other state or federally listed threatened or endangered species are expected to occur within the proposed project area (California Department of Fish and Game 2002, Smith and Berg 1988, U.S. Fish & Wildlife Service 1990).

The study site is located within the Amargosa Creek Drainage (ephemeral wash system). Loamy washes and depressions, and clay pans were observed within the study site. Water flow from the west and southwest sustain a unique habitat within this site and potentially to the east and northeast. It would be important to maintain water flow upstream and downstream as much as possible. Although there is a large retention basin in the abandoned construction area it appears that a large amount of water flow still makes it through the study site. 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 Streambed Alteration Agreement from the CDFW prior to development activities. This area will require consultation with CDFW to determine whether a Streambed Alteration Agreement is needed. Design of naturally vegetated swales to provide water flow to off-site areas may obviate or lessen the need for streambed mitigation.

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).

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