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Biological Resource Assessment of
APNs 3153-007-004, 005, 006, 024
Lancaster, California



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Abstract

Residential development has been proposed for APNs 3153-007-004, 005, 006, 024. The approximately 20 acre (8 ha) study area was located east of 45th Street West and north of Lancaster Boulevard, T7N, R13W, a portion of the SW1/4 of the NE1/4 of Section 13, S.B.B.M. A line transect survey was conducted on 25 May 2015 to inventory biological resources. The proposed project area was characteristic of a highly disturbed halophytic saltbush (*Atriplex* spp.) scrub habitat. A total of eighteen plant species were observed during the line transect survey. A total of twenty-five 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. No burrowing owls (*Athene cunicularia*) or sign were observed during the field survey. A burrowing owl survey should be accomplished within 30 days prior to ground disturbing activities to ensure no burrowing owls have moved into 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 pair of rock doves (*Columba livia*) was observed nesting in the northeast abandoned building on the study site. The saltbush scrub vegetation and abandoned buildings within the study area provides potential nesting sites for birds. If at all possible, removal of vegetation and abandoned buildings 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 and buildings. 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. A survey for bats in one of the abandoned buildings (northwest corner of the study site) should be accomplished prior to demolition. If bat presence is discovered consultation should be conducted with the CDFW to determine if any permits would be required to exclude the bats prior to demolition. No other state or federally listed species are expected to occur within the proposed project area. A portion of the study site is located within a relic portion of the Amargosa Creek Drainage (ephemeral wash system). A large loamy clay pan was 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 may require consultation with CDFW to determine whether a Streambed Alteration Agreement is needed.

Residential development has been proposed for APNs 3153-007-004, 005, 006, 024 (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.

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 20 acre (8 ha) study area was located east of 45th Street West and north of Lancaster Boulevard, T7N, R13W, a portion of the SW1/4 of the NE1/4 of Section 13, S.B.B.M. (Figure 2). An abandoned residential construction site existed north of the study site. A single-family residence and horse pens existed to the west. Lancaster Boulevard (dirt road) formed the southern boundary of the study site. Desert scrub habitat existed south of Lancaster Boulevard. A single-family residence and disturbed desert scrub existed along the east boundary of the study site (Figure 3). Topography of the site ranged from 2,335 to 2,340 feet (753 to 755 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 a north-south orientation. Line transects were approximately 1,320 feet (426 m) long and spaced about 100 feet (32 m) apart (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). Representative photographs were taken of the study site (Figures 4-6).

Results

A total of 4 line transects were walked on 25 May 2015 to inventory biological resources. Weather conditions consisted of warm temperatures (estimated 70 degrees F), 0% cloud cover, and light wind conditions. A loam surface soil texture and sandy clay loam surface texture were characteristic throughout the study area. A portion of the study site is within a relic portion of the Amargosa Creek Drainage, a large loamy clay pan was observed within the study site.

The proposed project area was characteristic of a highly disturbed halophytic saltbush scrub (*Atriplex* spp.) plant community (Barbour and Major 1988) with areas of historical homesteading and potentially farming. A total of eighteen 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 dominant annual species within the study area. No sensitive plant species or potential habitat was observed within the study site.

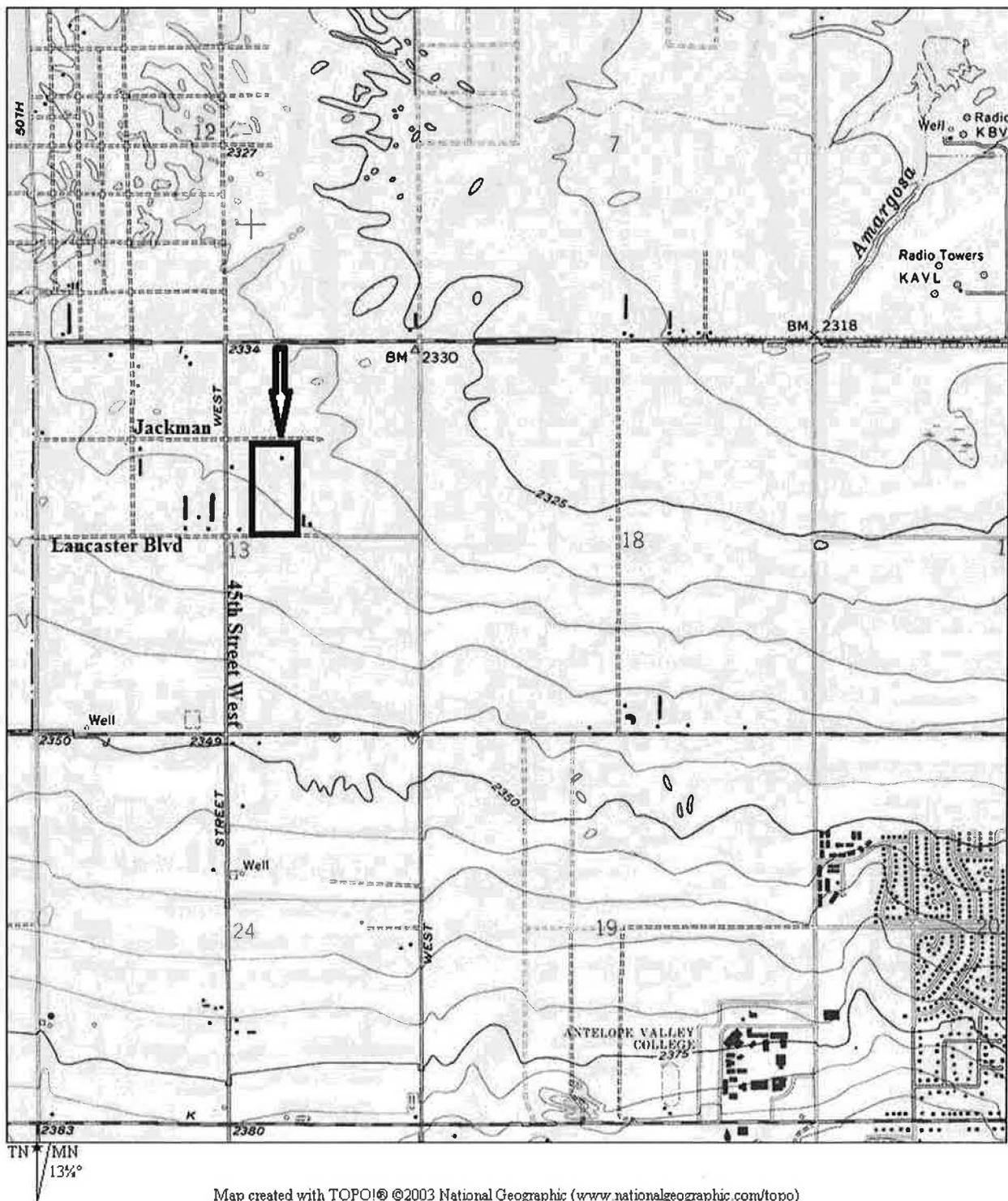


Figure 2. General location of study area as depicted on excerpt from Lancaster West, U.S.G.S., Quadrangle Map, 1974.



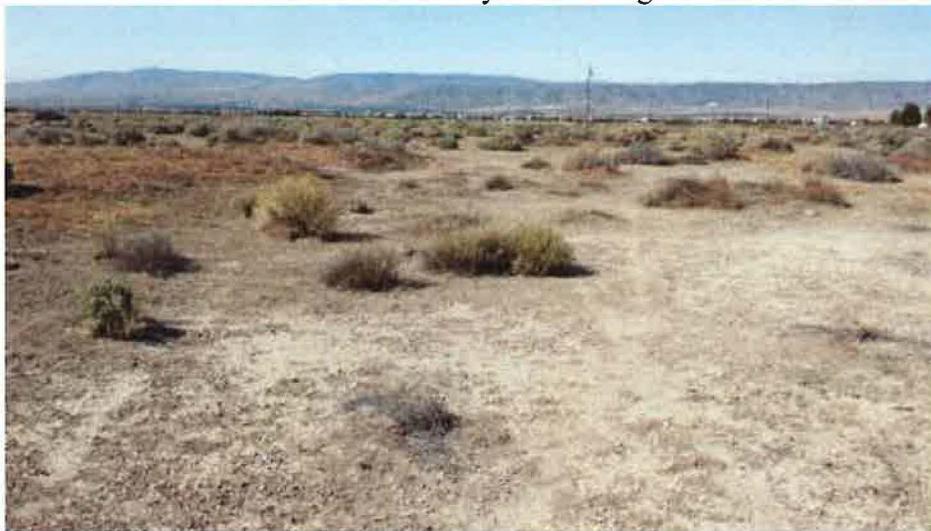
Figure 3. Aerial photo showing surrounding land use, 2015, Google Earth.



East side of study site looking NW



West side of study site looking N



Center of study site looking S, includes portion of large loamy clay pan

Figure 4. Photographs depicting the overall general habitat within study area.



Western abandoned building, potential bat habitat



Eastern abandoned building

Figure 6. Abandoned houses within the northern boundary of the study site.

Table 1. List of plant species that were observed during the line transect survey of APNs 3153-007-004, 005, 006, 024, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Shadscale	<i>Atriplex confertifolia</i>
Allscale	<i>Atriplex polycarpa</i>
Desert alyssum	<i>Lepidium fremontii</i>
Silverscale	<i>Atriplex argentea</i>
Spotted buckwheat	<i>Eriogonum maculatum</i>
Flat topped buckwheat	<i>Eriogonum deflexum</i>
Desert straw	<i>Stephanomeria pauciflora</i>
Fiddleneck	<i>Amsinckia tessellata</i>
Desert dandelion	<i>Malacothrix glabrata</i>
Foxtail barley	<i>Hordeum leporinum</i>
Saltgrass	<i>Distichlis spicata</i>
Schismus	<i>Schismus</i> sp.
Red stemmed filaree	<i>Erodium cicutarium</i>
Russian thistle	<i>Salsola iberica</i>
Tumble mustard	<i>Sisymbrium altissimum</i>
Mustard sp.	Brassicaceae
Five-hook bassia	<i>Bassia hyssopifolia</i>
Cheatgrass	<i>Bromus tectorum</i>

A total of twenty-five 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 recent sign were observed during the field survey. California ground squirrel (*Citellus beecheyi*) and their burrows were observed within the study site. No Mohave ground squirrels were observed during the field survey. One of the abandoned buildings in the northwest corner of the study site provides potential bat habitat.

Motorcycle tracks were observed within the study site. Two abandoned buildings were present on the study site. Household, construction (roofing tiles, lumber, concrete, bricks, etc.), and yard debris were observed within the study site. A large retention basin was present on the west side of the study site. A partial barbwire and post fence was observed within the southwest corner of the study site. The north portion and the southwest corner of the study site appeared to have been graded historically.

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 and abandoned buildings provides many roosting and nesting sites for birds. Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. If at all possible, destruction of vegetation and abandoned buildings should be avoided during the breeding season (spring) of birds. If vegetation and abandoned building 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. The study area does not appear to be suitable to support Mohave ground squirrels. No mitigation for this species is recommended.

Several bat species are state listed, candidate, or sensitive. Bats will use abandoned buildings that provide the appropriate conditions for roosting. Block construction buffers against extreme temperature changes. Sealing of a building creates a secure, dark "cave-like" condition. Small crevices in the building, such as a small broken window or space between a window frame

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of APNs 3153-007-004, 005, 006, 024, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Rodents	Order: Rodentia
California ground squirrel	<i>Citellus beecheyi</i>
Pocket gopher	<i>Thomomys bottae</i>
Kangaroo rat	<i>Dipodomys</i> sp.
Black-tailed jackrabbit	<i>Lepus californicus</i>
Desert cottontail	<i>Sylvilagus auduboni</i>
Coyote	<i>Canis latrans</i>
Domestic dog	<i>Canis familiaris</i>
Horse	<i>Equus</i> sp.
Sheep	<i>Ovis</i> sp.
Domestic goat	<i>Capra hircus</i>
Rock dove	<i>Columba livia</i>
Common raven	<i>Corvus corax</i>
Northern mockingbird	<i>Mimus polyglottos</i>
Horned lark	<i>Eremophila alpestris</i>
House finch	<i>Carpodacus mexicanus</i>
Sage sparrow	<i>Amphispiza belli</i>
Side blotched lizard	<i>Uta stansburiana</i>
Harvester ants	Order: Hymenoptera
Butterfly (white)	Order: Lepidoptera
Bees	Order: Hymenoptera
Ladybird beetle	<i>Hippodamia convergens</i>
Spider	Order: Araneida
Grasshopper	Order: Orthoptera
Fly	Order: Diptera

Table 3. List of wildlife species that may occur within the study area, APNs 3153-007-004, 005, 006, 024, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Deer mouse	<i>Peromyscus maniculatus</i>
Merriam kangaroo rat	<i>Dipodomys merriami</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
American kestrel	<i>Falco sparverius</i>
Mourning dove	<i>Zenaida macroura</i>
Great horned owl	<i>Bubo virginianus</i>
Say's phoebe	<i>Sayornis saya</i>
Gopher snake	<i>Pituophis melanoleucus</i>
Mojave rattlesnake	<i>Crotalus scutulatus</i>
Western whiptail	<i>Cnemidophorus tigris</i>
Cricket	Order: Orthoptera
Wolf spider	Order: Araneida
Dragonfly	Order: Odonata
Walking stick	Order: Orthoptera

or sealed board provides access for bats yet excludes larger animals. The building in the northwest corner potentially provides these conditions. A survey for bats in this building should be accomplished prior to demolition. If bat presence is discovered consultation with the California Department of Fish and Wildlife (CDFW) should be conducted to determine if any permits would be required to exclude the bats prior to demolition. Sealing the building at this time would not be advisable as this could seal in bats causing a potential take of a sensitive species. The abandoned building in the northeast corner did not appear to provide suitable habitat for a bat roost.

Burrowing owls are considered a species of special concern by the CDFW. Although no burrowing owls or their sign were observed during the survey, the California ground squirrel burrows within the project site provide potential cover sites for burrowing owls. A burrowing owl is present to the north on the adjacent property. A burrowing owl survey should be accomplished within 30 days prior to ground disturbing activities to ensure no burrowing owls have moved into the project site. If burrowing owls are discovered the CDFW should be consulted prior to construction.

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).

A portion of the study site is located within a relic portion of the Amargosa Creek Drainage (ephemeral wash system). A large loamy clay pan was 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 may require consultation with CDFW to determine whether a Streambed Alteration Agreement is needed.

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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