

Biological Resource Assessment of
APNs 3114-012-068 and 069
Lancaster, California

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Abstract

Development has been proposed for APNs 3114-012-068 and 069, Lancaster, California. The approximately 15 acre (6 ha) study area was located west of 20th Street West and south of Avenue H, T7N, R12W, a portion of the NE1/4 of the NE1/4 of the NE1/4 of Section 8, S.B.B.M. A line transect survey was conducted on 28 May 2022 to inventory biological resources. The proposed project area was characteristic of a heavily disturbed lot. A total of 26 plant species and 11 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. Suitable habitat for desert tortoises was not present within or adjacent to the study site. 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. California ground squirrel burrows (*Citellus beecheyi*) were observed within the study site. California ground squirrel burrows can provide future cover sites for burrowing owls. Swainson's hawks (*Buteo swainsoni*) and other raptors may fly over the site, but there are no nesting, roosting, or foraging opportunities available within the study site. Limited vegetation within the study area provides potential nesting sites for small migratory birds. No sensitive plants, such as Joshua tree (*Yucca brevifolia*), alkali mariposa lily (*Calochortus striatus*), desert cymopterus (*Cymopterus deserticola*) or Barstow woolly sunflower (*Eriophyllum mohanense*) were observed within the study area. No sensitive plants are expected to be present due to lack of suitable habitat. No other state or federal listed species are expected to occur within the study area. No ephemeral streams or washes were present within the study site.

Recommended Protection Measures:

Consistent with the "Staff Report on Burrowing Owl Mitigation" a take avoidance (preconstruction) burrowing owl survey will be accomplished no more than 14 days prior to ground disturbance activities to ensure no owls have moved into the study site (CDFG 2012). If burrowing owls are found to have moved into the site methods noted within the Staff Report will be applied as appropriate.

If possible, removal of vegetation will occur outside the nesting season for migratory birds. Nesting 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 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 (16 m) 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.

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.

Development has been proposed for APNs 3114-012-068 and 069 (Figure 1). Development would include installation of access roads, parking, and utilities (water, sewer, electric, etc.). The entire project area would be cleared and regraded 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 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*), Joshua tree (*Yucca brevifolia*), alkali mariposa lily (*Calochortus striatus*), desert cymopterus (*Cymopterus deserticola*), and Barstow woolly sunflower (*Eriophyllum mohanense*).

Study Area

The approximately 15 acre (6 ha) study area was located west of 20th Street West and south of Avenue H, T7N, R12W, a portion of the NE1/4 of the NE1/4 of the NE1/4 of Section 8, S.B.B.M. (Figure 2). Single-family housing existed to the south of the study site (Figure 3). The Amargosa Creek drainage canal existed to the west of the study site. Highway 14 was situated west of the Amargosa Creek drainage channel. Avenue H formed the northern boundary of the study site. The eastern boundary of the study site was formed by 20th Street West. Single family housing was present east of 20th Street West.

Methods

Line transects were conducted to determine habitat suitability for sensitive species and inventory plant and wildlife species occurring within the proposed project area (Cooperrider et al. 1986, Davis 1990). Line transects ranged from approximately 500 feet to 1,260 (152 to 384 m) long and spaced about 100 feet (30 m) apart (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.

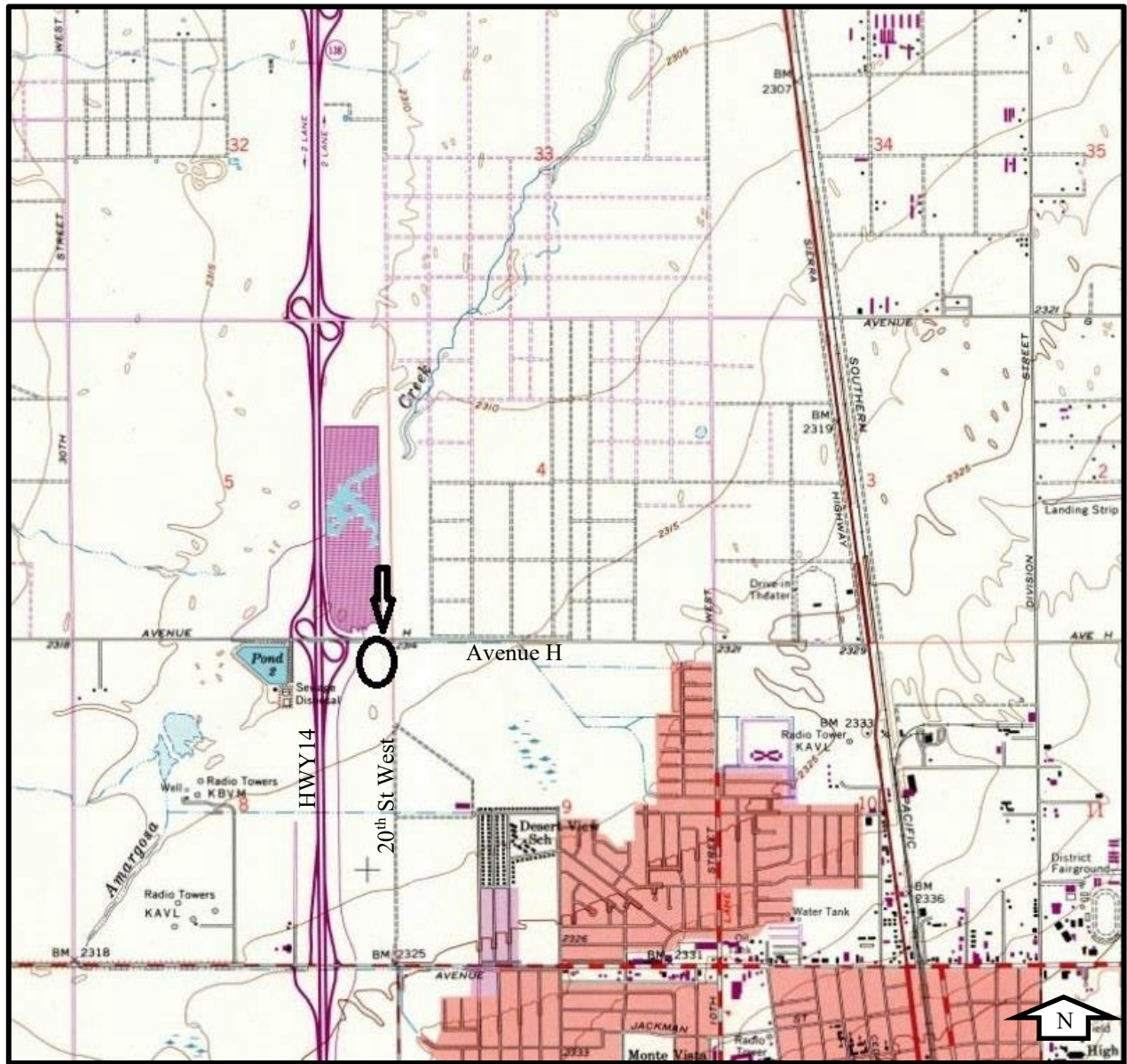


Figure 2. Approximate location of study area as depicted on excerpt from USGS Quadrangle, Lancaster West, California, 7.5' 1974.



Figure 3. Approximate location of study area, Google Earth 2018, showing surrounding land use.

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, and the previous survey results were reviewed (Hagan 2016). Photographs of the study site were taken (Figure 4).

Results

Line transects were walked on 28 May 2022. Weather conditions consisted of warm temperatures (estimated 75 degrees F), 50% cloud cover, and high winds. Highly compacted clay sandy loam surface soil texture was characteristic within the study area. No blue line streams were found on the USGS topographic map within the study area. No ephemeral streams or washes were observed within the study site. Topography of the site ranged from 2,314 to 2,316 feet (746 to 747 m) above sea level.

The proposed project area was characteristic of a heavily disturbed lot. A total of 26 plant species were observed during the line transect survey (Table 1). Russian knapweed (*Rhaponticum repens*) was the dominant perennial within the study site. Invasive grasses were the dominate annual species within the study site. Native shrub species were few in number and only indicate what vegetative state may have been present prior to 2005. No Joshua trees were present within the study site. No sensitive plant species or suitable habitat were observed within the study area.

A total of 11 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 suitable desert tortoise habitat was present within the study site. No burrowing owls or their sign were observed within the study site. California ground squirrel burrows (*Citellus beecheyi*) were observed within the study area. No suitable habitat for Mohave ground squirrels was present within the study site. No desert kit foxes or their sign were observed during the field survey. No Swainson's hawks were observed during the field survey. No suitable nesting, roosting sites, or foraging for Swainson's hawks were present within the study site.

Vehicle tracks were observed within the study area. Gravel parking areas were present within the study site. Broken asphalt, concrete, and gravel were observed within the study site. Construction debris and soil piles were present within the study site. Dirt roads were present along the western and southern boundaries of the study site. Trash and debris was observed within the study site.

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 proposed project area (Table 3).



Figure 4. Representative photographs of the study area. Both views are same location in center of study site; top view looking north, bottom looking south.

Table 1. List of plant species that were observed during the line transect survey of APNs 3114-012-068 and 069, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Desert olive	<i>Forestiera pubescens</i>
Narrow-leaf willow (beside block wall)	<i>Salix exigua</i>
California juniper	<i>Juniperus californica</i>
Salt cedar (beside block wall)	<i>Tamarix</i> sp.
Great basin sagebrush	<i>Artemisia tridentata</i>
Shadscale	<i>Atriplex confertifolia</i>
Silverscale	<i>Atriplex argentea</i>
Rabbit brush	<i>Chrysothamnus nauseosis</i>
Inkweed	<i>Suaeda torreyana</i>
Alkali rye (1 dying individual)	<i>Elymus cinereus</i>
Desert straw	<i>Stephanomeria pauciflora</i>
Fiddleneck	<i>Amsinckia tessellata</i>
Prickly lettuce	<i>Lactuca seriola</i>
Russian knapweed	<i>Rhaponticum repens</i>
Five-hook bassia	<i>Bassia hyssopifolia</i>
Russian thistle	<i>Salsola iberica</i>
Sahara mustard	<i>Brassica tournefortii</i>
Yellow star thistle	<i>Centaurea melitensis</i>
Black-eyed susan	<i>Rudbeckia hirta</i>
Red stemmed filaree	<i>Erodium cicutarium</i>
Saltgrass	<i>Distichlis spicata</i>
Schismus	<i>Schismus</i> sp.
Red brome	<i>Bromus rubens</i>
Cheatgrass	<i>Bromus tectorum</i>
Foxtail barley	<i>Hordeum leporinum</i>
Ornamental plant (beside block wall)	

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of APNs 3114-012-068 and 069, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Rodents	Order: Rodentia
California ground squirrel	<i>Citellus beecheyi</i>
Desert cottontail	<i>Sylvilagus auduboni</i>
Domestic dog	<i>Canis familiaris</i>
Mourning dove	<i>Zenaida macroura</i>
Rock dove	<i>Columba livia</i>
Common raven	<i>Corvus corax</i>
Horned lark	<i>Eremophila alpestris</i>
House finch	<i>Carpodacus mexicanus</i>
Cabbage white butterfly	<i>Pieris rapae</i>
Harvester ants	Order: Hymenoptera

Table 3. List of wildlife species that may occur within the proposed study area, APNs 3114-012-068 and 069, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Deer mouse	<i>Peromyscus maniculatus</i>
Coyote	<i>Canis latrans</i>
Domestic cat	<i>Felis sp.</i>
Northern mockingbird	<i>Mimus polyglottos</i>
House sparrow	<i>Passer domesticus</i>
Grasshopper	Order: Orthoptera
Spider	Order: Araneida
Fly	Order: Diptera

Human impacts within the study area are expected to continue. This study site was being actively graded for development through 2005 and 2006 based on historical Google Earth photography. By 2008 nearly all vegetation had been removed. The previous biological survey documented the lack of biological resources and condition of the study site in 2016 (Hagan 2016). The study site is essentially in the same condition now as it was in 2016. Habitat in the general area was degraded and fragmented. Burrowing animals within the proposed project area are not expected to survive construction activities. More mobile species, such as birds, are expected to survive construction activities. Development of this site will result in a minimal loss of cover and foraging opportunities for the common wildlife species occurring within and adjacent to the study area.

The desert tortoise is a state endangered and federal threatened listed 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. Suitable habitat for desert tortoise was not present within or adjacent to the study area. 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. The proposed project site was located within the geographic range of the MGS. The western limit of the geographic range of the MGS is currently thought to be Highway 14. 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 (Figure 4, Table 1). MGS are not present within the study area. No protection measures are recommended for MGS.

Burrowing owls are considered a species of special concern by the California Department of Fish and Wildlife (CDFW). No burrowing owls or their sign were observed within the study area. California ground squirrel burrows were observed within the study area. California ground squirrel burrows can provide future cover sites for burrowing owls.

Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. Swainson's hawk observations noted on eBird are strongly correlated with large open fields, active agricultural fields, and areas of water (eBird 2022). No Swainson's hawk nesting is noted in eBird or in the CNDDDB in the urban areas of Lancaster. There is no forage, roosting or nesting opportunity within the study area for Swainson's hawks or other raptors. No protection measures are recommended for Swainson's hawks or other raptors. Limited vegetation within the study site may provide potential nesting sites for small migratory birds.

No suitable habitat for sensitive plant species was observed within the study site. Based on the results of the field survey sensitive plant species are not 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 proposed project area (CDFW 2020, 2021, U.S. Fish & Wildlife Service 2016).

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:

Consistent with the “Staff Report on Burrowing Owl Mitigation” a take avoidance (preconstruction) burrowing owl survey will be accomplished no more than 14 days prior to ground disturbance activities to ensure no owls have moved into the study site (CDFG 2012). If burrowing owls are found to have moved into the site methods noted within the Staff Report will be applied as appropriate.

If possible, removal of limited vegetation will occur outside the nesting season for migratory birds. Nesting generally lasts from February to July but may extend beyond this time frame. If this removal will occur during or close to the nesting season, a qualified biologist will survey all 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 (16 m) 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.

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.

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