

Biological Resource Assessment of
APNs 3150-030-013, 016, 017
Lancaster, California

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Abstract

Development has been proposed for APNs 3150-030-013, 016, 017, Lancaster, California. The approximately 7.5 acre (3 ha) study area was located north of Avenue J-4 and east of 26th Street East, T7N, R11W, a portion of the SW1/4 of the NW1/4 of the NE1/4 of Section 19, S.B.B.M. A line transect survey was conducted on 8 August 2023 to inventory biological resources. The proposed project area was characteristic of a highly disturbed field. A total of 21 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 during the field survey. The study site did not contain suitable habitat to support desert tortoises. The study site did not contain suitable habitat to support Mohave ground squirrels. No burrowing owls (*Athene cunicularia*) were observed during the field survey. California ground squirrels (*Citellus beecheyi*) and their burrows were present within the study site and could provide future cover sites for burrowing owls. No indication of burrowing owl use was present at these cover sites or at an old open concrete pipe. No suitable nesting habitat for migratory birds was present within the study site. The study site appears to have no forage value for Swainson's hawk (*Buteo swainsoni*) given the condition, location, and lack of an active agricultural field. No sensitive plants, specifically, Joshua tree (*Yucca brevifolia*), alkali mariposa lily (*Calochortus striatus*), desert cymopterus (*Cymopterus deserticola*), and Barstow woolly sunflower (*Eriophyllum mohanense*) were observed during the field survey. No other sensitive plants are expected to occur within the study area due to the high level of impacts and the lack of suitable habitat. No other state or federally listed species are expected to occur within the proposed project area. No wetlands or ephemeral washes were observed within the study site. A drainage for water runoff was present within the eastern boundary of the study site.

Recommended Protection Measures:

Consistent with the "Staff Report on Burrowing Owl Mitigation" a take avoidance (pre-construction) survey should be accomplished within 14 days of ground disturbing activities (CDFG 2012). If burrowing owls or their sign are detected during the take avoidance (pre-construction) survey the Staff Report will be applied as appropriate.

Based on the condition of the habitat, surrounding land use, and lack of wildlife sign, no other protection measures are recommended.

Significance: This project would not result in a significant adverse impact to biological resources.

Development has been proposed for APNs 3150-030-013, 016, 017 (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.

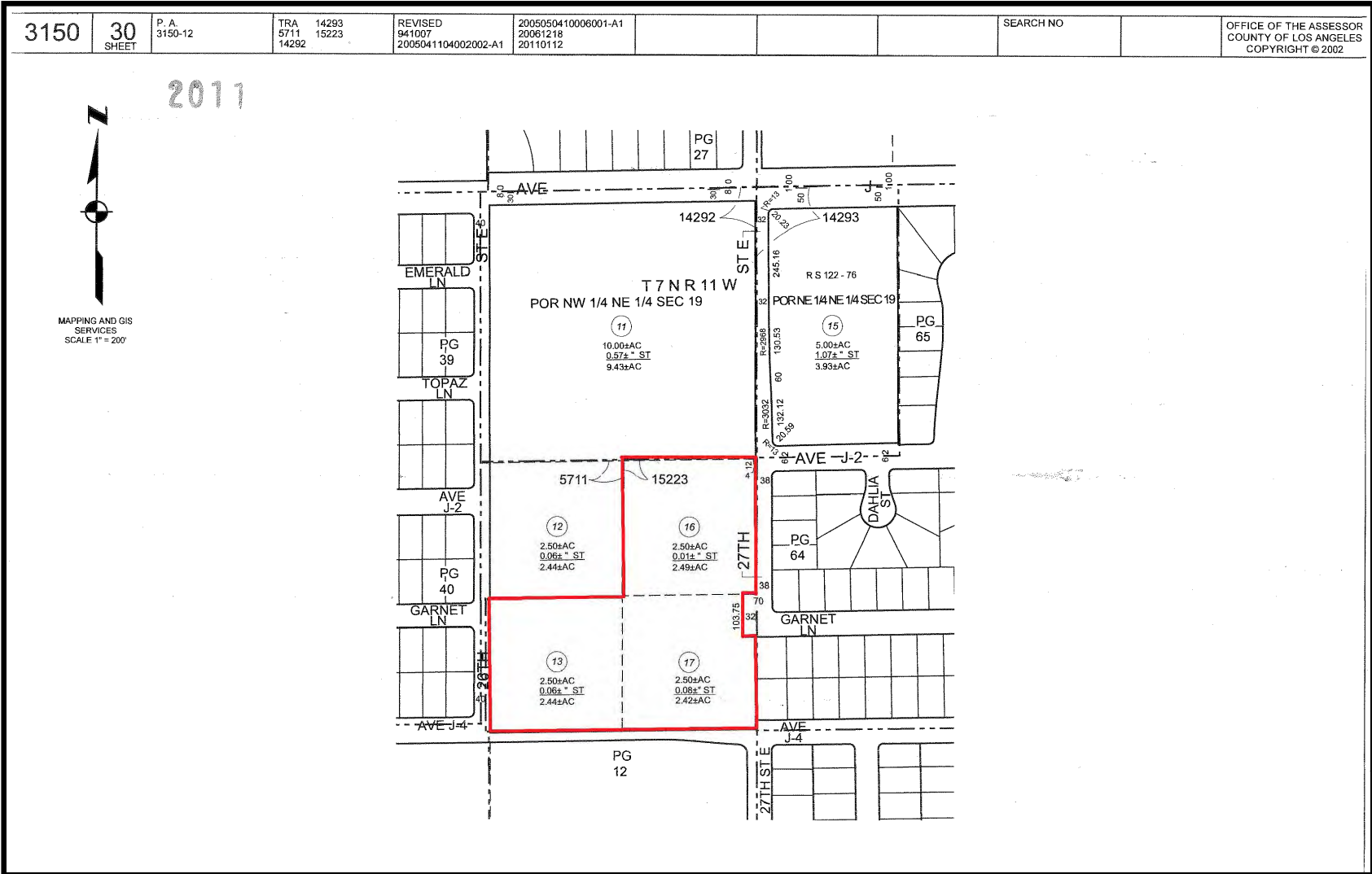


Figure 1. Location of proposed project site as depicted on APN map.

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*), desert cymopterus (*Cymopterus deserticola*), Barstow woolly sunflower (*Eriophyllum mohanense*), alkali mariposa lily (*Calochortus striatus*), and Joshua tree (*Yucca brevifolia*).

Study Area

The approximately 7.5 acre (3 ha) study area was located north of Avenue J-4 and east of 26th Street East, T7N, R11W, a portion of the SW1/4 of the NW1/4 of the NE1/4 of Section 19, S.B.B.M. (Figures 2 and 3). The western boundary of the study site was formed by 26th Street East. Single-family housing was present west of 26th Street East. Avenue J-4 formed the southern boundary. An elementary school was present south of Avenue J-4. The northeastern boundary of the study site was formed by 27th Street East. Single-family housing was present east of 27th Street East. Single-family housing existed along the southeastern portion of the study site. A highly disturbed field existed to the north of the study site. Topography of the site was approximately 2,400 feet (732 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). The USFWS (2010) has provided recommendations for survey methodology to determine presence/absence and abundance/distribution of desert tortoises. Line transects were walked in an east-west orientation within the study site. Line transects ranged from 330 to 660 feet (101 to 201 m) long and spaced approximately 100 feet (32 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 potential 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, 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). Aerial photographs, California Natural Diversity Database (CNDDDB 2020), previous reports (Hagan 2005a-b, 2020a-d, 2022), and the USGS topographic map were reviewed. Photographs of the study site were taken (Figure 4).



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



Figure 3. Approximate location of study area showing surrounding land use as depicted on excerpt from Google Earth Aerial Photography, May 2023.



Figure 4. Top photo: Representative of overall site conditions. Bottom photo: View of runoff drainage within east boundary.

Results

A total of 4 line transects were walked on 8 August 2023. Weather conditions consisted of warm temperatures (estimated 70 degrees F), 0% cloud cover, and slight breeze. Sandy loam and sandy clay loam surface soil textures were present within the study area. There were no blue line streams delineated within the study area on the USGS topographic map. There were no washes or streams observed on the aerial photography. No ephemeral washes or streams were observed within the study site during the field survey. A drainage for water runoff was present within the eastern boundary of the study site.

The proposed project area was characteristic of a highly disturbed field. A total of 21 plant species were observed during the line transect survey (Table 1). The project site was all but devoid of shrubs. Red stemmed filaree (*Erodium cicutarium*) and invasive grasses were the dominant annual plant species within the project site. Annuals within the study site were predominately invasive, weedy species (Table 1). No Joshua trees, alkali mariposa lilies, Barstow woolly sunflowers, desert cymopterus, or suitable habitat were observed within the study site.

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 burrowing owls or their sign were observed within the study site during the field survey. California ground squirrels (*Citellus beecheyi*) and their burrows were observed within the study area. No bird nests were observed during the field survey. No Swainson's hawk nesting, roosting, or foraging habitat was present within the study site. No desert kit foxes, or their sign were observed during the field survey. No suitable MGS habitat was present within the study site.

Scattered litter was observed within the study site. A small concrete dump was observed within the study site. A small old wood dump was observed within the study site. Dirt roads and trails crisscrossed the study site. Vehicle tracks were observed within the study site. Perennial pepperweed, a highly invasive weed was observed within the drainage channel. An open concrete waterline was observed within the study site along the eastern boundary

Discussion

It is likely that most annual species were visible during the time the field survey was performed. Most of the annual biomass represented within the project site consisted of weedy species (Table 1). Historical Google aerial photography indicates the study site has been in the same general condition since 1994. Based on the lack of habitat, no sensitive plant species are expected to exist within the study site. Although not observed, several wildlife species would be expected to occur within the proposed project area (Table 3).

This study site has been irretrievably impacted and provides little value to anything other than invasive species. The study site is surrounded on three sides by urban development. The remaining side is a field in the same condition as the study site. Immediately north of this adjacent field is more urban development. Burrowing animals within the proposed project area are not expected to survive construction activities. More mobile species, such as lagomorphs (rabbits and hares), and birds are expected to survive, but they will have less cover and foraging habitat available.

Table 1. List of plant species that were observed during the line transect survey of APNs 3150-030-013, 016, 017, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Rabbit brush	<i>Chrysothamnus nauseosis</i>
Australian saltbush	<i>Atriplex semibaccata</i>
Silverscale	<i>Atriplex argentea</i>
Common tarweed	<i>Hemizonia pungens</i>
Fiddleneck	<i>Amsinckia tessellata</i>
Russian thistle	<i>Salsola iberica</i>
Red stemmed filaree	<i>Erodium cicutarium</i>
Annual burweed	<i>Franseria acanthicarpa</i>
Tansy mustard	<i>Descurainia sophia</i>
Tumble mustard	<i>Sisymbrium altissimum</i>
Prickly lettuce	<i>Lactuca seriola</i>
Schismus	<i>Schismus</i> sp.
Ripgut grass	<i>Bromus diandrus</i>
Foxtail barley	<i>Hordeum leporinum</i>
Cheatgrass	<i>Bromus tectorum</i>

Plants that were only observed within the runoff drainage.

Annual rabbit foot grass	<i>Polypogon monspeliensis</i>
Cattail	<i>Typha</i> sp.
Yellow sweet clover	<i>Melilotus officinalis</i>
Perennial pepperweed	<i>Lepidium latifolium</i>
Horseweed	<i>Canyza honariensis</i>
Five-hook bassia	<i>Bassia hyssopifolia</i>

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of APNs 3150-030-013, 016, 017, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Rodents	Order: Rodentia
California ground squirrel	<i>Citellus beecheyi</i>
Domestic dog	<i>Canis familiaris</i>
Rock dove	<i>Columba livia</i>
Common raven	<i>Corvus corax</i>
Harvester ants	Order: Hymenoptera
Cabbage white butterfly	<i>Pieris rapae</i>
Grasshopper	Order: Orthoptera
European honey bees	Order: Hymenoptera
Spider	Order: Araneida
Dragonfly	Order: Odonata

Table 3. List of wildlife species that may occur within the study area, APNs 3150-030-013, 016, 017 Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Deer mouse	<i>Peromyscus maniculatus</i>
Desert cottontail	<i>Sylvilagus auduboni</i>
Domestic cat	<i>Felis catus</i>
Side blotched lizard	<i>Uta stansburiana</i>
Mourning dove	<i>Zenaida macroura</i>
Black phoebe	<i>Sayornis nigricans</i>
Horned lark	<i>Eremophila alpestris</i>
House finch	<i>Carpodacus mexicanus</i>
House sparrow	<i>Passer domesticus</i>
Fly	Order: Diptera

The desert tortoise is a state endangered and federally 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. No desert tortoise habitat is present within, adjacent, or near the project site. Based on field observations, desert tortoises are not present within the study area. No protection measures are recommended for desert tortoises.

The MGS is a state listed threatened species. The study area was located within the geographic range of MGS. MGS habitat is recognized to consist of a variety of desert scrub habitats, none of which occur any longer within, adjacent, or near the project site. A table listing MGS habitats and a discussion of required shrubs and annuals can be found in the publication titled “A Conservation Strategy for the Mohave Ground Squirrel” (CDFW 2019). No suitable habitat is present to support MGS within or around this study site. No protection measures are recommended for the MGS.

Desert kit foxes are a protected species by California Department of Fish and Wildlife (CDFW). No sign of desert kit fox activity was observed within the study site. Based on this field survey desert kit foxes are not resident within this study site. No protection measures are recommended for desert kit foxes.

Burrowing owls are considered a species of special concern by the CDFW. The California ground squirrel burrows and open concrete water line within the study site could provide potential future cover sites for burrowing owls. No observations of burrowing owls have been documented within or near the study site since 2009 (CNDDDB 2020, eBird 2023).

Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. No suitable nesting habitat was present for migratory birds. Swainson’s hawk is a state listed threatened species. Juvenile Swainson’s hawks with adult Swainson’s hawks were observed at 50th Street East and Avenue L in 2020 in the active agricultural fields (eBird 2023, CNDDDB 2020). Swainson’s hawk observations within Lancaster have been strongly correlated to active agricultural fields (eBird 2023, CNDDDB 2020). No active agricultural fields were present in proximity to the study site. The study site did not appear to have potential foraging habitat for Swainson’s hawks due to the condition of the study site, high human activity in the area, and surrounding land use. No additional surveys for Swainson’s hawk are recommended. No minimization measures for Swainson’s hawk are recommended.

No suitable habitat for Joshua tree, alkali mariposa lily, Barstow woolly sunflower or desert cymopterus was observed within the study site. Based on the results of the field survey these species are not expected to occur within the study area and no protection measures are recommended. 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 2023a-b).

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 (pre-construction) survey should be accomplished within 14 days of ground disturbing activities (CDFG 2012). If burrowing owls or their sign are detected during the take avoidance (pre-construction) survey the Staff Report will be applied as appropriate.

Based on the condition of the habitat, surrounding land use, and lack of wildlife sign, no other protection measures are recommended.

Significance: This project would not result in a significant adverse impact to biological resources.

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