

Biological Resource Assessment of  
APNs 3150-029-025 and 026  
Lancaster, California

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## **Abstract**

Development has been proposed for APNs 3150-029-025 and 026, Lancaster, California. The approximately 20 acre (8 ha) study area was located north of Avenue J and west of 40th Street East, T7N, R11W, the E1/2 of the SE1/4 of the SE1/4 of Section 17, S.B.B.M. A line transect survey was conducted on 23 March 2022 to inventory biological resources. The proposed project area was characteristic of an old abandoned agricultural field. A total of 14 plant species and 8 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. Potential future cover sites for burrowing owls were present within the study site. The vegetation within the study area was not suitable habitat for nesting migratory birds. Swainson's hawk (*Buteo swainsoni*) and other raptors would not nest within the study area given the lack of nesting sites. The study site appears to have no forage value for Swainson's hawks. No sensitive plants, specifically, alkali mariposa lily (*Calochortus striatus*), desert cymopterus (*Cymopterus deserticola*), and Barstow woolly sunflower (*Eriophyllum mohanense*) were observed during the field survey. One very old dead Joshua tree (*Yucca brevifolia*) was present within the study site. 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.

## **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.

Coordination with the California Department of Fish and Wildlife is recommended to determine steps to be taken to deal with the dead Joshua tree present within the study area.

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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Development has been proposed for APNs 3150-029-025 and 026 (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.

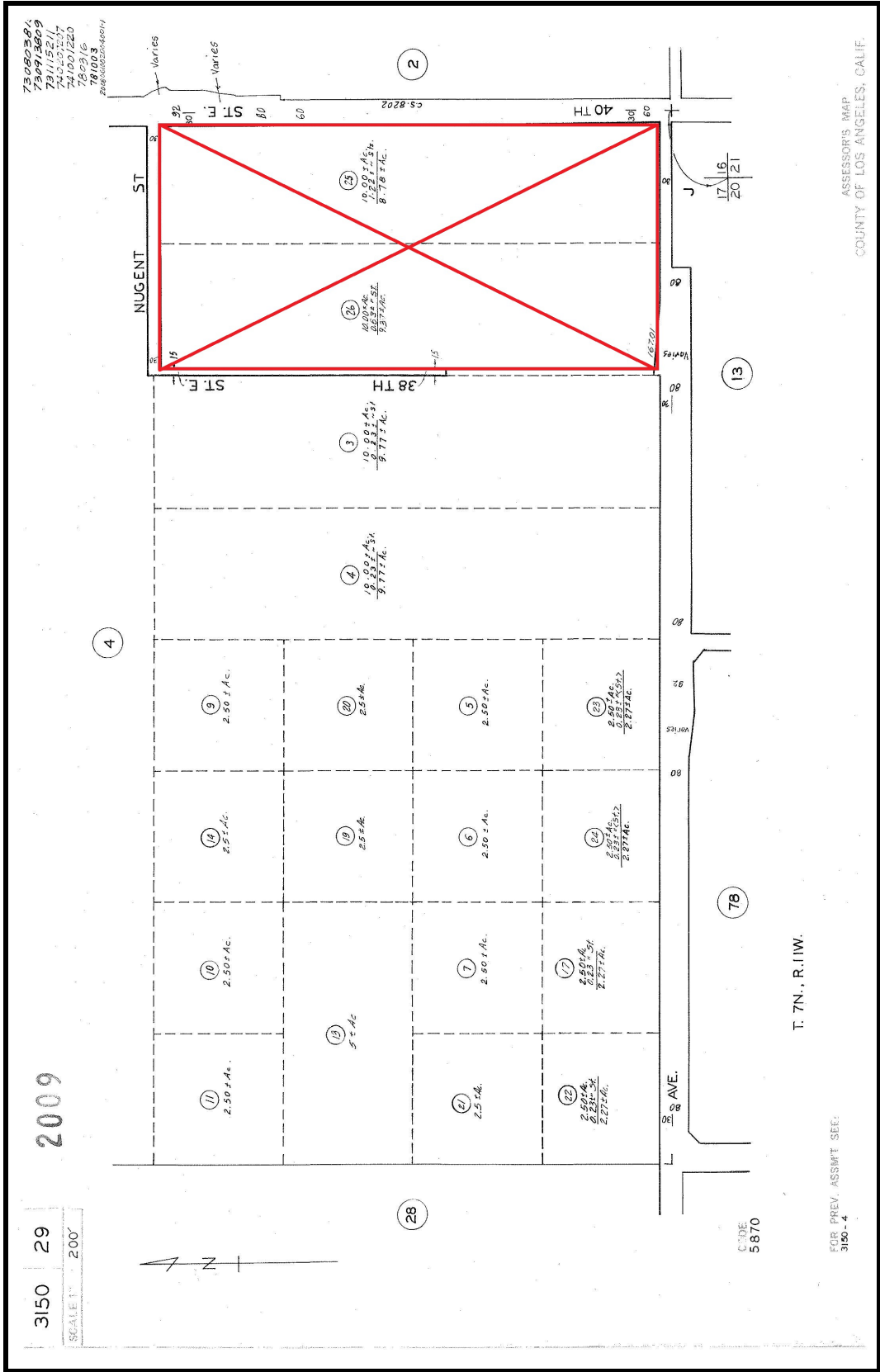


Figure 1. Location of proposed project site as depicted on APN map.

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

## Study Area

The approximately 20 acre (8 ha) study area was located north of Avenue J and west of 40th Street East, T7N, R11W, the E1/2 of the SE1/4 of the SE1/4 of Section 17, S.B.B.M. (Figures 2 and 3). An old agricultural field existed north and west of the study site. Avenue J formed the southern boundary of the study site. The American Legion facility was present south of Avenue J. The eastern boundary of the study site was formed by 40th Street East. Lancaster Baptist Church, elementary through high school, and college were present east of 40th Street East. Topography of the site ranged from approximately 2,391 to 2,397 feet (729 to 731 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 a north-south orientation within the study site. Line transects were approximately 1,320 feet (426 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), and the USGS topographic map were reviewed. Photographs of the study site were taken (Figure 4).

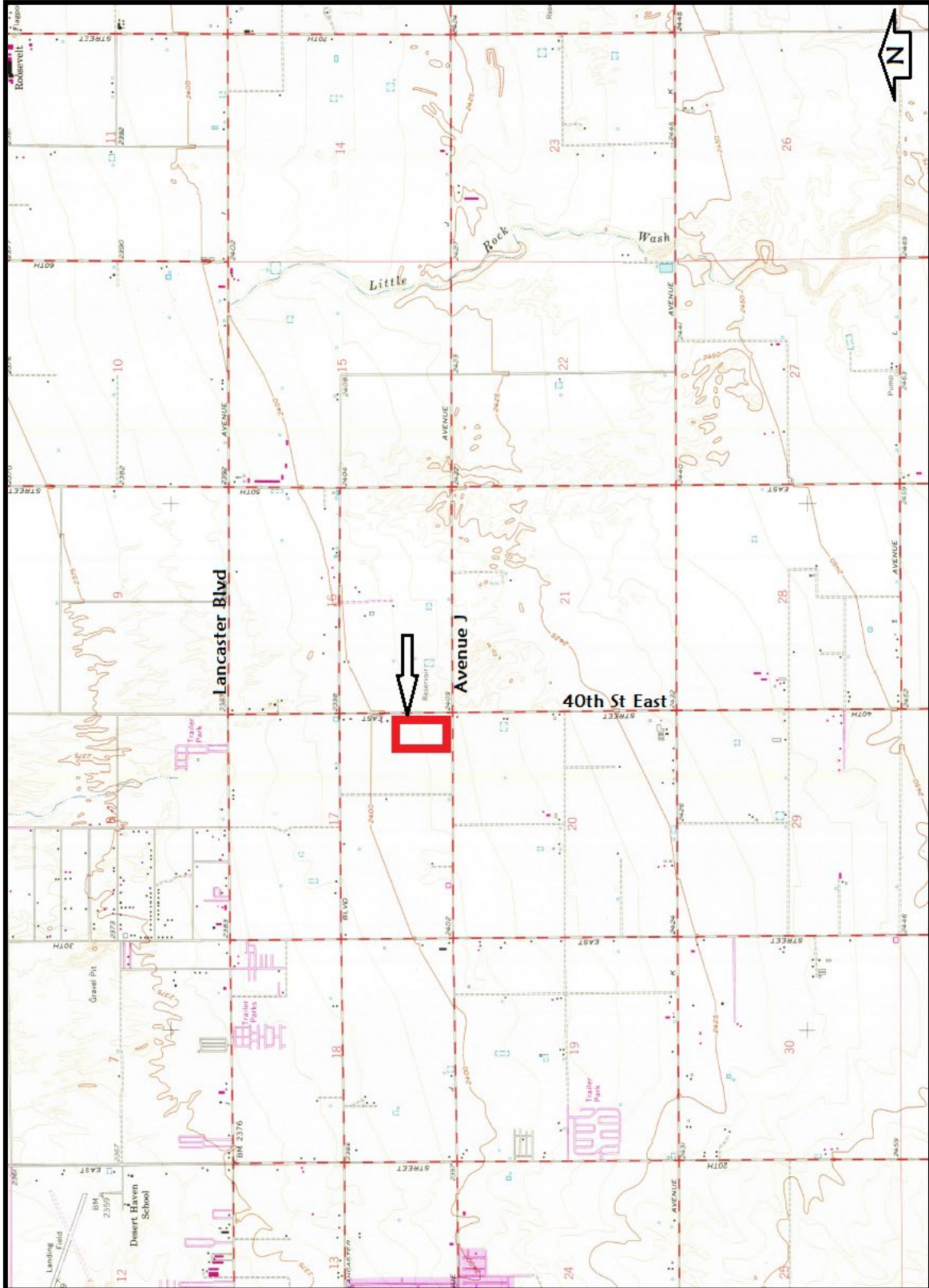


Figure 2. Approximate location of study area as depicted on U.S.G.S. Quadrangle, Lancaster East, Calif., 7.5', 1974.



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



Figure 4. Representative photos of the study site. Top photo: East side of the site looking north. Tree shown is a very old dead Joshua tree. No seedlings or other Joshua trees were present. Bottom photo: West side of the site looking north.

## Results

A total of 6 line transects were walked on 23 March 2022. Weather conditions consisted of warm temperatures (estimated 70 degrees F), 0% cloud cover, and no wind. Sandy loam surface soil textures were present throughout 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 washes or streams were observed during the field survey.

The proposed project area was characteristic of an old abandoned agricultural field. A total of 14 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*) was the dominant plant species within the project site. Annuals within the study site were predominately invasive, weedy species (Table 1). No alkali mariposa lilies, Barstow woolly sunflowers, desert cymopterus, or suitable habitat were observed within the study site. One very old dead Joshua tree was present within the study site.

A total of 8 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 squirrel (CGS) (*Citellus beecheyi*) 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.

Small amounts of debris and scattered litter were observed within the study site. Trash dumps were observed along the southern boundary (Aveune J). A berm of mulch, oriented north-south, was present within the study site. Old wood fence posts and old fence wire were present within the study site. A concrete foundation was present within the study site. Open concrete water structures were present within the study area.

## 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 an old abandoned agricultural field from 1994 to 2017 (last aerial date). 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).

Human impacts are expected to increase as urban development continues to occur in the area. Habitat in the general area is already developed and what is left is severely 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), 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 3150-029-025 and 026, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Four-wing saltbush	<i>Atriplex canescens</i>
Rabbit brush	<i>Chrysothamnus nauseosis</i>
Comb-bur	<i>Pectocarya recurvata</i>
Sand verbena	<i>Abronia villosa</i>
Yellow throats	<i>Phacelia fremontii</i>
Goldfields	<i>Lasthenia californica</i>
Davy gilia	<i>Gilia latiflora davyi</i>
Fiddleneck	<i>Amsinckia tessellata</i>
Russian thistle	<i>Salsola iberica</i>
Schismus	<i>Schismus</i> sp.
Cheatgrass	<i>Bromus tectorum</i>
Red stemmed filaree	<i>Erodium cicutarium</i>
Tansy mustard	<i>Descurainia sophia</i>
Tumble mustard	<i>Sisymbrium altissimum</i>
Mushroom	Kingdom: Fungi

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of APNs 3150-029-025 and 026, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Rodents	Order: Rodentia
California ground squirrel	<i>Citellus beecheyi</i>
Kangaroo rat	<i>Dipodomys</i> sp.
Coyote	<i>Canis latrans</i>
Horse	<i>Equus</i> sp.
Common raven	<i>Corvus corax</i>
Horned lark	<i>Eremophila alpestris</i>
Spider	Order: Araneida

Table 3. List of wildlife species that may occur within the study area, APNs 3150-029-025 and 026 Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Deer mouse	<i>Peromyscus maniculatus</i>
Merriam kangaroo rat	<i>Dipodomys merriami</i>
Desert cottontail	<i>Sylvilagus auduboni</i>
Domestic cat	<i>Felis catus</i>
Domestic dog	<i>Canis familiaris</i>
Side blotched lizard	<i>Uta stansburiana</i>
Rock dove	<i>Columba livia</i>
Mourning dove	<i>Zenaida macroura</i>
House finch	<i>Carpodacus mexicanus</i>
House sparrow	<i>Passer domesticus</i>
Harvester ants	Order: Hymenoptera
Dragonfly	Order: Odonata
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 structures 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 2022).

Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. Vegetation within the study site does not provide suitable nesting habitat for migratory birds. Swainson’s hawk is a state listed threatened species. Swainson’s hawks have been observed nesting at 70th Street East and Avenue H-8 in 2021. Juvenile Swainson’s hawks with adult Swainson’s hawks were observed at 50<sup>th</sup> Street East and Avenue L in 2020. Both were in active agricultural fields (eBird 2022, CNDDDB 2020). Swainson’s hawk observations within Lancaster have been strongly correlated to active agricultural fields (eBird 2022, CNDDDB 2020). Active agricultural fields were present to the southeast of the 40th Street East and Avenue J intersection southeast of the study site. However, the study site did not appear to have potential foraging habitat for Swainson’s hawks due to the limited prey base observed. Data exists on the recent presence of breeding Swainson’s hawks within 5 miles of the study site. No additional surveys for Swainson’s hawk are recommended. No minimization measures for Swainson’s hawk are recommended.

No suitable habitat for alkali mariposa lily, Barstow woolly sunflower or desert cymopterus was observed within the study site. A very old dead Joshua tree was present within or adjacent to 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 2020, 2021, Smith and Berg 1988, 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 (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.

Coordination with the California Department of Fish and Wildlife is recommended to determine steps to be taken to deal with the dead Joshua tree present within the study area.

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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