

Biological Resource Assessment of
APNs 3150-013-032, 039
Lancaster, California

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Abstract

Development has been proposed for APNs 3150-013-032, and 039, Lancaster, California. The approximately 40 acre (16 ha) study area was located south of Avenue J and east of 32nd Street East, T7N, R11W, the NE1/4 of the NW1/4 of Section 20, S.B.B.M. A line transect survey was conducted on 22, 30 January and 1 February 2020 to inventory biological resources. The proposed project area was characteristic of an old agricultural field. A total of fifteen plant species and twenty-nine 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. No mitigation for this species is recommended. The proposed project site was located within the geographic range of the Mohave ground squirrel (*Xerospermophilus mohavensis*). The study site did not contain suitable habitat to support Mohave ground squirrels. No mitigation for this species is recommended. No burrowing owls (*Athene cunicularia*) were observed during the field survey. California ground squirrel burrows (*Citellus beecheyi*) were present which can provide potential cover sites for burrowing owls. Vegetation within the study area provides potential nesting sites for smaller migratory birds. Swainson's hawk (*Buteo swainsoni*) and other raptors may fly over and use the site for forage but would not be expected to nest within the study area due to a lack of suitable nesting habitat. 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. No 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.

If possible, removal of vegetation will occur outside the breeding season for migratory birds. Breeding 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 potential nesting 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 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.

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 3150-013-032, 039 (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.

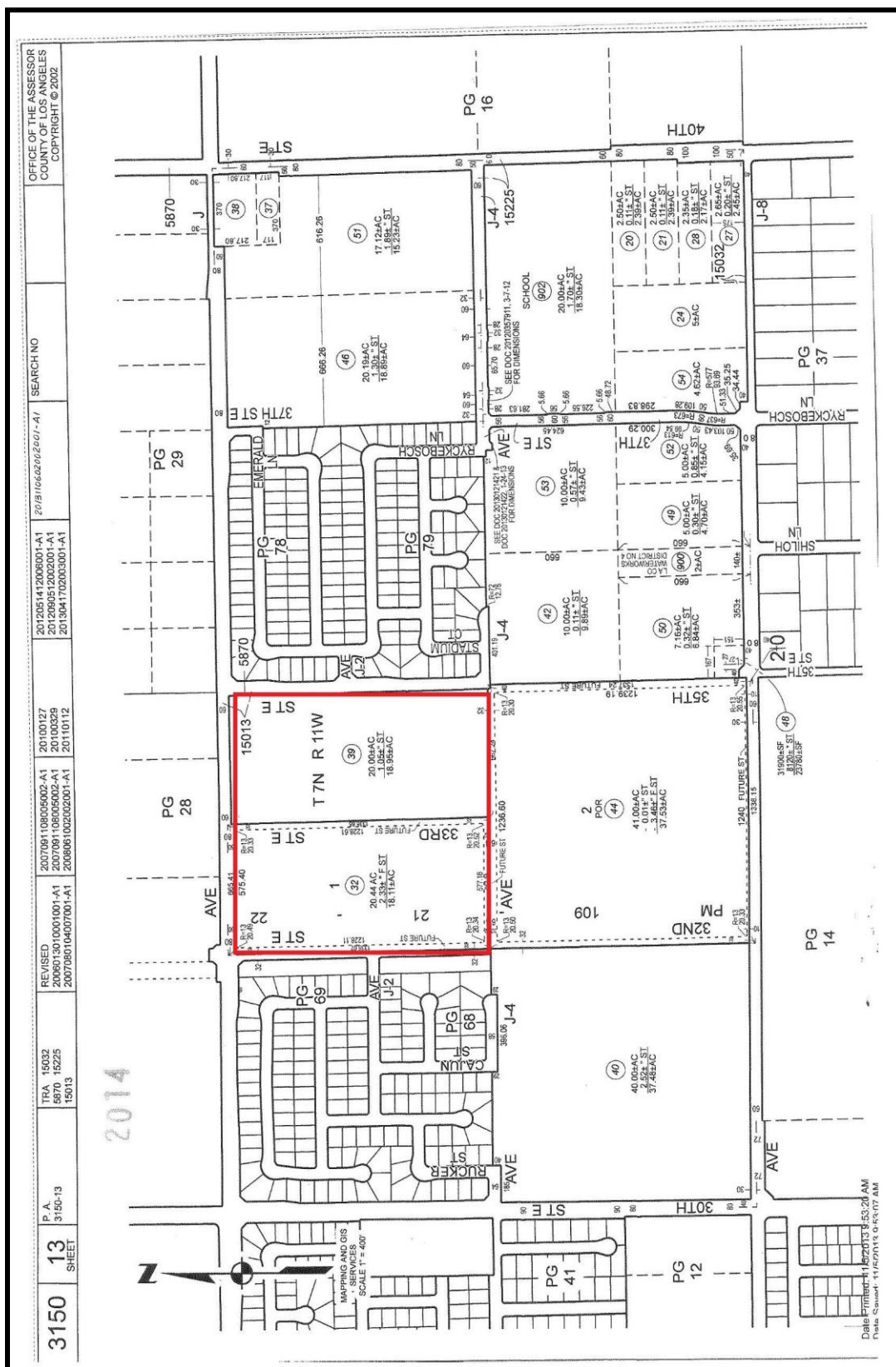
An environmental analysis should be conducted prior to any development project. An assessment of biological resources is an integral part of environmental analyses (Gilbert and Dodds 1987). The purpose of this study was to provide an assessment of biological resources potentially occurring within, or 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*), and alkali mariposa lily (*Calochortus striatus*).

Study Area

The approximately 40 acre (16 ha) study area was located south of Avenue J and east of 32nd Street East, T7N, R11W, the NE1/4 of the NW1/4 of Section 20, S.B.B.M. (Figures 2 and 3). The northern boundary of the project site was formed by Avenue J, a main thoroughfare. An old abandoned agricultural field existed north of Avenue J. The southern boundary of the project site was formed by Avenue J-4. An old abandoned agricultural field existed south of Avenue J-4. The eastern boundary of the study site was formed by 35th Street East, a paved road with curbs and sidewalk. The western boundary of the study site was formed by 32nd Street East, a paved road with curbs and sidewalk. Single-family homes were present west and east of both roads. Topography of the site was approximately 2,400 feet (774 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. Consistent with the survey protocol, line transects were approximately 1,290 feet (416 m) long and were spaced approximately 30 feet (11m) 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 habitat was present for the species (CDFW 2019, Leitner and Leitner 2017).



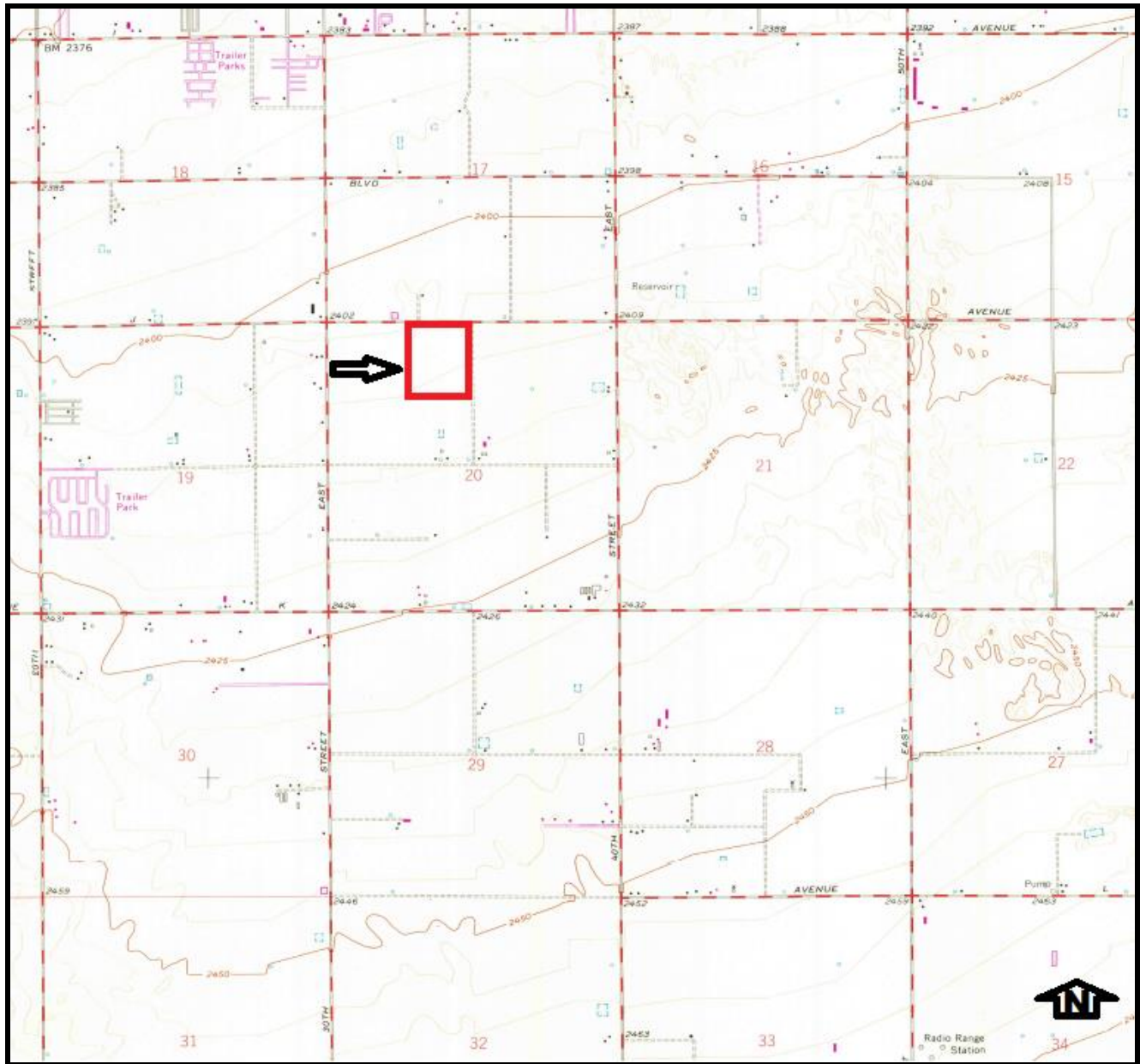


Figure 2. Approximate location of study area as depicted on U.S.G.S. Quadrangles, Lancaster East, Calif., 7.5', 1974.



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

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 Database, Lancaster East (CNDDDB 2018), and the USGS topographic maps were reviewed. Photographs of the study site were taken (Figure 4).

Results

A total of 36 line transects were walked on 22, 30 January and 1 February 2020. Weather conditions consisted of warm temperatures (estimated 60 degrees F), 100% cloud cover, and light winds on 22 January 2020. Weather conditions consisted of warm temperatures (estimated 60 degrees F), 70% cloud cover, and light winds on 30 January 2020. Weather conditions consisted of warm temperatures (estimated 60 degrees F), 0% cloud cover, and light winds on 1 February 2020. A sandy loam surface soil texture was characteristic throughout the study area. There were no blue line streams delineated on the USGS topographic maps within the study area. 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 fifteen plant species were observed during the line transect survey (Table 1). Rabbit brush was the dominant perennial shrub species throughout the study area. Red stemmed filaree (*Erodium cicutarium*) was the dominant annual species throughout the study area. 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.

A total of twenty-nine 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 (*Citellus beecheyi*) burrows observed within the study area provide future potential cover sites for burrowing owls. One inactive bird nest was observed within a large rabbit brush during the field survey. 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 and debris were observed within the study site. Trash dumping was present along the east and west boundaries of the study site consisting mainly of household items and furniture. Car parts were observed within the study site. Off-road vehicle (OHV) tracks were observed within the study site. Construction debris, broken asphalt and concrete were present with the study area. An old dirt road, oriented east-west, was present within the study site. Heavy traffic originating from the school to the south, was observed during the field survey on 32nd Street East. Human use (walking, playing, walking dogs) within the study site was observed each day of the survey.



Figure 4. Representative photographs depicting general site characteristics.

Table 1. List of plant species that were observed during the line transect survey of APNs 3150-013-032, 039, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Four-wing saltbush (1 individual)	<i>Atriplex canescens</i>
Rabbit brush	<i>Chrysothamnus nauseosis</i>
Fiddleneck	<i>Amsinckia tessellata</i>
Desert dandelion	<i>Malacothrix glabrata</i>
Gilia	<i>Gilia minutiflora</i>
Goldfields	<i>Lasthenia californica</i>
Russian thistle	<i>Salsola iberica</i>
Schismus	<i>Schismus</i> sp.
Foxtail barley	<i>Hordeum leporinum</i>
Cheatgrass	<i>Bromus tectorum</i>
Bermuda grass	<i>Cynodon dactylon</i>
Red stemmed filaree	<i>Erodium cicutarium</i>
Annual burweed	<i>Franseria acanthicarpa</i>
Tumble mustard	<i>Sisymbrium altissimum</i>
Prickly lettuce	<i>Lactuca seriola</i>

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of APNs 3150-013-032, 039, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Rodents	Order: Rodentia
Kangaroo rat	<i>Dipodomys</i> sp.
Pocket gopher	<i>Thomomys bottae</i>
California ground squirrel	<i>Citellus beecheyi</i>
Desert cottontail	<i>Sylvilagus auduboni</i>
Coyote	<i>Canis latrans</i>
Domestic dog	<i>Canis familiaris</i>
Side blotched lizard	<i>Uta stansburiana</i>
Gull sp.	Family: Laridae
Ferruginous hawk	<i>Buteo regalis</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Mourning dove	<i>Zenaida macroura</i>
Rock dove	<i>Columba livia</i>
Common raven	<i>Corvus corax</i>
Say's phoebe	<i>Sayornis saya</i>
Northern mockingbird	<i>Mimus polyglottos</i>
European starling	<i>Sturnus vulgaris</i>
Horned lark	<i>Eremophila alpestris</i>
Western meadowlark	<i>Sturnella neglecta</i>
Mountain bluebird	<i>Sialia currucoides</i>
Yellow-rumped warbler	<i>Setophaga coronata</i>
House finch	<i>Carpodacus mexicanus</i>
White crowned sparrow	<i>Zonotrichia leucophrys</i>
Darkling beetle	<i>Coelocnemis californicus</i>
Moth	Order: Lepidoptera
Spider	Order: Araneida
Ants, small, black	Order: Hymenoptera
Harvester ants	Order: Hymenoptera
Butterfly	Order: Lepidoptera

Discussion

It is possible that some annual species were not visible during the time the field survey was performed. The site was severely disturbed and very few native annuals are expected to be present within the study site. Greater than 75% of the annual biomass within the project site consisted of weedy species. 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 is severely degraded and fragmented or already developed. The presence of domestic dogs and cats (*Felis catus*) would be expected to impact wildlife species. Domestic dogs were observed within this area during the field survey. Cats from the surrounding residential properties would be expected to use the study site. 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 tortoise is a state and federally listed threatened 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 in close proximity to 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 in close proximity to 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 on or around this study site. No protection measures are recommended for MGS.

Desert kit foxes are a fully 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 within the project site could provide potential cover sites for burrowing owls. The CNDDDB for Lancaster East documented burrowing owl presence in 2004 and 2005 around the study site. By 2008 the residential homes to the east and west of the study site and the high school to the south were under development. Due to the on the ground human and domestic animal use within the study site; it is likely that the burrowing owls that were once present moved to more isolated habitat north of Avenue J.

Table 3. List of wildlife species that may occur within the study area, APNs 3150-013-032, 039 Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Deer mouse	<i>Peromyscus maniculatus</i>
Black-tailed jackrabbit	<i>Lepus californicus</i>
Domestic cat	<i>Felis catus</i>
House sparrow	<i>Passer domesticus</i>
Grasshopper	Order: Orthoptera
Dragonfly	Order: Odonata
European honey bees	Order: Hymenoptera
Fly	Order: Diptera
Wasp	Order: Hymenoptera

Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. Swainson's hawk and other raptors would not nest within the study area given the lack of nesting sites. Swainson's hawk and other raptors may fly over and forage within the study site. Observations of Swainson's hawks have been documented flying over or perching 4 times between 2016 and 2018 within 5 miles of the study site (eBird 2020). No protection measures are recommended for Swainson's hawk or other raptors. Smaller migratory birds may potentially nest in the rabbit brush within the study site.

No suitable habitat for 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 2015, 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 further surveys based on the Staff Report will be applied as appropriate.

If possible, removal of vegetation will occur outside the breeding season for migratory birds. Breeding 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 potential nesting 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 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.

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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