Biological Resource Assessment of
APNs 3204-006-036 and 037
Lancaster, California

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Abstract

Residential development has been proposed for APNs 3204-006-036 and 037. The approximately 10-acre (4 ha) study area was located north of Avenue L and west of 52nd Street West, T7N, R13W, the SE1/4 of the SW1/4 of the SE1/4 of Section 26**,** S.B.B.M. A line transect survey was conducted on 21 August 2021 to inventory biological resources. The proposed project area was characteristic of a highly disturbed field. A total of 13 plant species and 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 habitat within the study area was not suitable to support desert tortoises. No Mohave ground squirrels (*Xerospermophilus mohavensis*) were observed or audibly detected during the field survey. There was no suitable habitat for Mohave ground squirrels within the study area. No desert kit foxes (*Vulpes macrotis*) or their sign were observed during the field surveys. No burrowing owls (*Athene cunicularia*), or their sign were observed during the field survey. Vegetation within the study area does not provide potential nesting sites for migratory birds. No nesting sites for Swainson's hawk (*Buteo swainsoni*) have been sighted within 5 miles of the project site (eBird 2021). 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 state or federally listed species are expected to occur within the proposed project area. No wetlands or ephemeral desert washes were observed within the study area.

Recommended Protection Measures:

Consistent with the "Staff Report on Burrowing Owl Mitigation" a take avoidance (preconstruction) burrowing owl survey will be accomplished no less 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.

Significance:

Given the small size of the study area, the adjacent land uses, high disturbance of the habitat, and continual human use; this project is not expected to result in a significant adverse impact to biological resources.

Development of a residential area has been proposed for APNs 3204-006-036 and 037 (Figure 1). Development would include installation of access roads 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*), desert kit fox (*Vulpes macrotis*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), Joshua tree (*Yucca brevifolia*), desert cymopterus (*Cymopterus deserticola*), Barstow woolly sunflower (*Eriophyllum mohanense*), and alkali mariposa lily (*Calochortus striatus*).

Study Area

The approximately 10-acre (4 ha) study area was located north of Avenue L and west of 52nd Street West, T7N, R13W, the SE1/4 of the SW1/4 of the SE1/4 of Section 26**,** S.B.B.M. (Figure 2). The eastern boundary of the study site was formed by 52nd Street West. Highly disturbed fields were adjacent to the northern and western boundaries of the study area. Avenue L formed the southern boundary of the study area. Residential development existed south of Avenue L and east of 52nd Street West (Figure 3). Topography of the site was 2,420 to 2,435 feet (738 to 742 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. Consistent with survey protocol line transects were approximately 660 feet (201 m) long and spaced about 75 feet (23 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 to determine shrub species diversity, cover, and forage potential on the study site.

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, eBird 2021, Gould 1981, Jaeger 1969, Knobel 980, 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, Murie 1974, Lowrey 2006). Review of documented sightings of sensitive plant and wildlife species was accomplished using the California Natural Diversity Database (CNDD) (Lancaster West 2020, Del Sur 2016) and eBird.org. Previous surveys in the area (Hagan 2013, 2014, 2016, 2018, 2019, 2020, 2021, Aspen Group 2015) were reviewed for historical sightings and background information. Photographs were taken of the study site (Figure 4).

Results

A total of eight line transects were walked on 21 August 2021. Weather conditions consisted of warm temperatures (estimated 70 degrees F), 100% hazy cloud cover, and slight wind. A sandy loam surface soil texture was characteristic throughout the study area. No blue line streams were noted within the study site on the USGS topographic map. No wetlands or ephemera desert washes were observed within the study area.

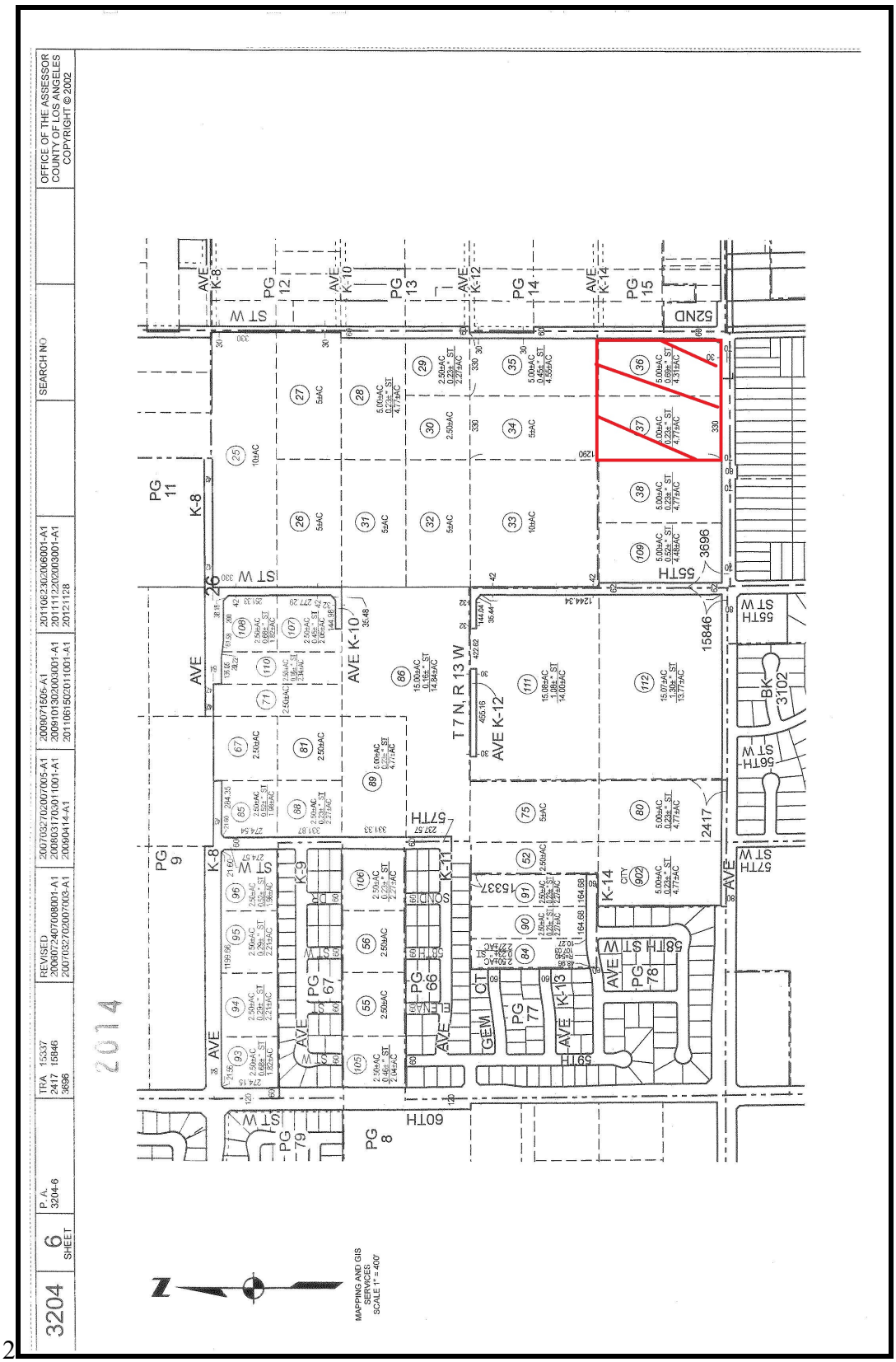

Figure 1. Location of proposed project site as depicted on APN map.

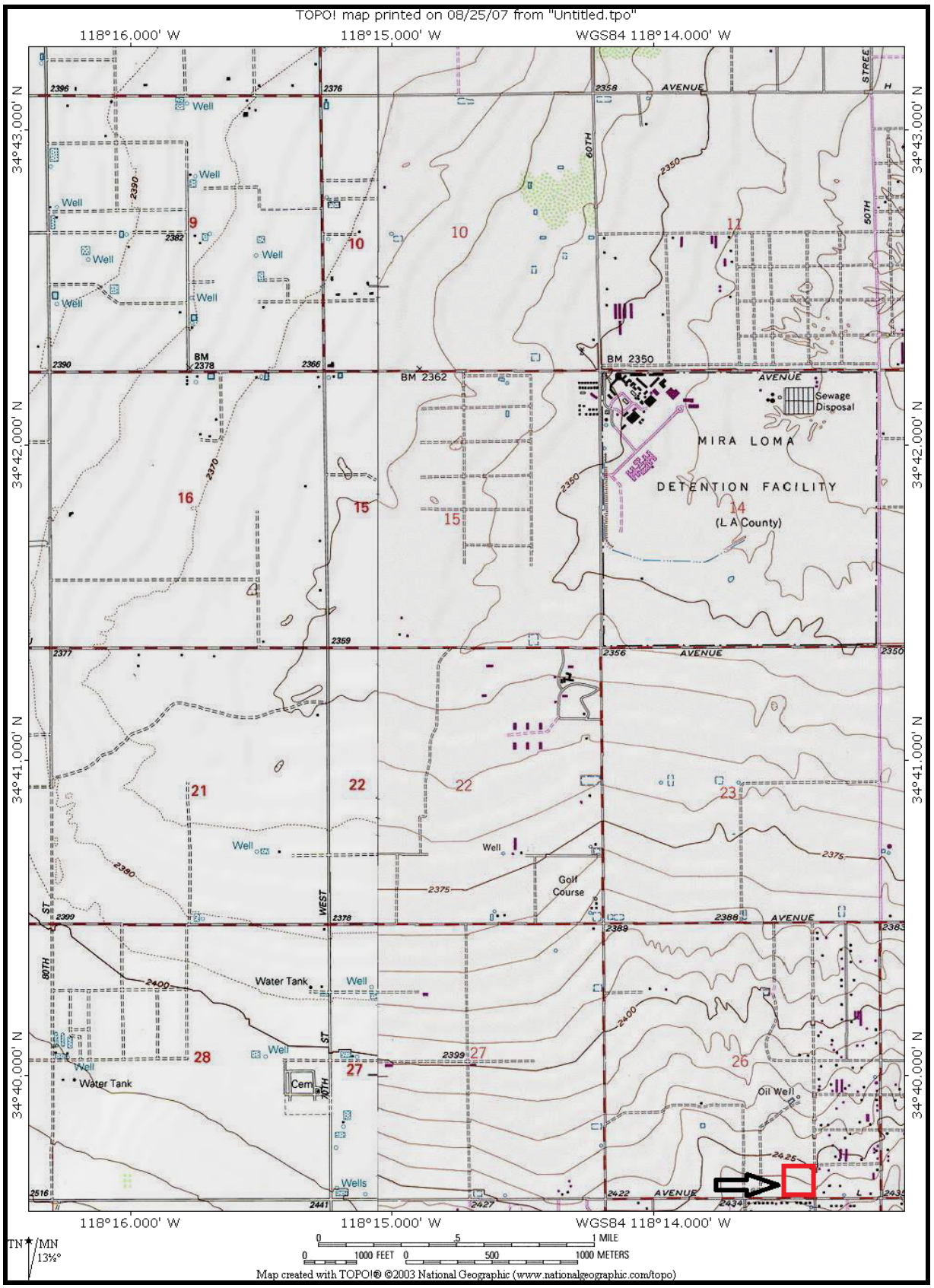

Figure 2. Approximate location of study area as depicted on excerpt from Lancaster West, 1974, and Del Sur, 1995, USGS Topographical Maps.

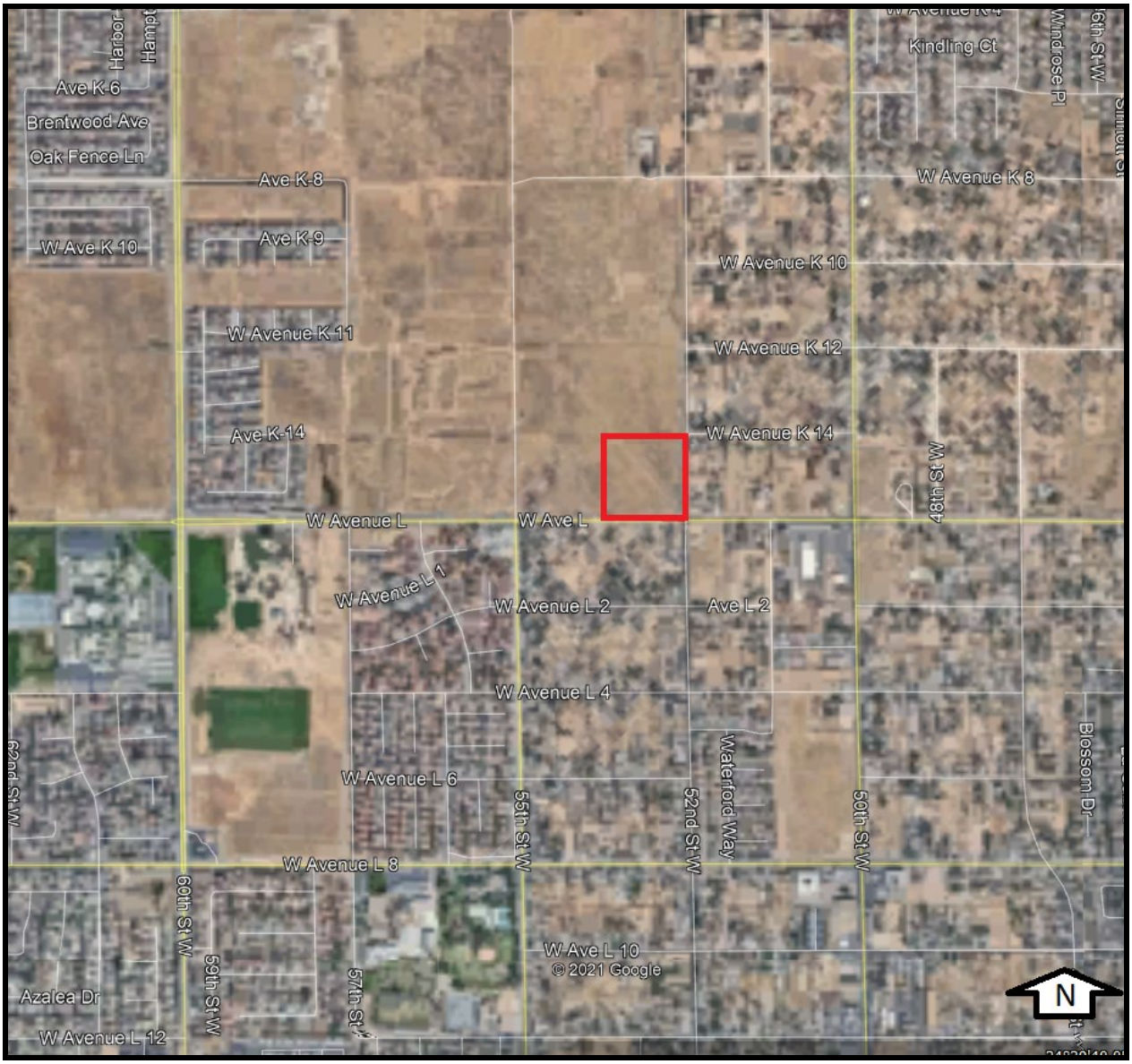

Figure 3. Approximate location of study area as depicted on excerpt from Google Earth Aerial Photography, dated July 2017, showing surrounding land use.

Figure 4. Representative photographs of the study area, APNs 3204-006-036 and 037, Lancaster, California.

The proposed project area was characteristic of a highly disturbed field. A total of 13 plant species were observed during the line transect survey (Table 1). The study area was nearly devoid of shrubs. Fiddleneck (*Amsinckia tessellata*) and tumble mustard (*Sisymbrium altisissiimum*) were the dominant annual species throughout the study area.

A total of 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 during the field survey. No bird nests were observed within the study site. No Mohave ground squirrels were detected visually or audibly during the field survey. No desert kit foxes, or their sign were observed during the field survey.

Scattered litter was present throughout the study area. Soil and asphalt spoil piles were observed within the study area. Vehicle tracks were observed within the study site. An above ground utility pole line and trees were located along Avenue L. Evidence of fire was observed throughout most of the study area.

Discussion

It is likely that some annual species were not visible during the time the field survey was performed. Based on the habitat and level of disturbance no sensitive plants species are expected to exist within the study site. 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 construction activities. Development of this site will result in less cover and foraging opportunities for the species occurring within and adjacent to the study area.

The desert tortoise is listed as a state endangered and federal 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 tortoises or their sign were observed within the study area. Suitable habitat for desert tortoises was not present within or adjacent to the study area. Desert tortoises are not expected to inhabit the study area. No protection measures are recommended for desert tortoises.

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 during the survey. California ground squirrel (*Citellus beecheyi*) burrows could become cover sites for burrowing owls within the study site.

Table 1. List of plant species that were observed during the line transect survey of APNs 3204-006-036 and 037, Lancaster, California.

Common Name	Scientific Name
Rabbit brush	*Chrysothamnus nauseosis*
Russian thistle	*Salsola iberica*
Buckwheat sp.	*Eriogonum* sp.
Fiddleneck	*Amsinckia tessellata*
Turkey mullein	*Eremocarpus setigerus*
Autumn vinegar-weed	*Lessingia germanorum*
Vinegar weed	*Trichostema lanceolatum*
Rattlesnake weed	*Euphorbia albomarginata*
Red stemmed filaree	*Erodium cicutarium*
Annual burweed	*Franseria acanthicarpa*
Tumble mustard	*Sisymbrium altisissiimum*
Cheatgrass	*Bromus tectorum*
Schismus	*Schismus* sp.

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of APNs 3204-006-036 and 037, Lancaster, California.

Common Name	Scientific Name
Rodents	Order: Rodentia
Pocket gopher	*Thomomys bottae*
California ground squirrel	*Citellus beecheyi*
Desert cottontail	*Sylvilagus auduboni*
Common raven	*Corvus corax*
Northern mockingbird	*Mimus polyglottos*
Harvester ants	Order: Hymenoptera
Spider sp.	Order: Araneida
Spider sp. (funnel web)	Order: Araneida

Table 3. List of wildlife species that may occur within the study area, APNs 3204-006-036 and 037, Lancaster, California.

Common Name	Scientific Name
Deer mouse	*Peromyscus maniculatus*
Merriam kangaroo rat	*Dipodomys merriami*
Coyote	*Canis latrans*
Domestic dog	*Canis familiaris*
Rock dove	*Columba livia*
Mourning dove	*Zenaida macroura*
Horned lark	*Eremophila alpestris*
European starling	*Sturnus vulgaris*
Side blotched lizard	*Uta stansburiana*
Fly	Order: Diptera

Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. Vegetation within the study area does not provide potential nesting sites for migratory birds. No Swainson's hawk have been observed nesting within 5 miles of the study site (eBird 2021). The study area is not considered suitable foraging habitat given the small patch size, adjacent urban uses, and high level of habitat disturbance. No protection measures are recommended for Swainson's hawks and other migratory birds.

The Mohave ground squirrel (MGS) is a state listed threatened species. The proposed project area was not located within the geographic range of the MGS. The western limit of the geographic range of the MGS is State Highway 14. In addition, the study area lacked suitable habitat to support MGS (CDFW 2019). No protection measures are recommended for MGS.

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 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 (preconstruction) burrowing owl survey will be accomplished no less 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.

Significance:

Given the small size of the study area, the adjacent land uses, high disturbance of the habitat, and continual human use; this project is not expected to result in a significant adverse impact to biological resources.

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