Biological Resource Assessment of
Tentative Tract Map 66842
Lancaster, California

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TTM 66842 Amended

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Abstract

Development of single-family residences has been proposed for Tentative Tract Map 66842, Lancaster, California. The 22.73 acre (9.1 ha) study area was located east of 40th Street West and north of Avenue J-9 and Avenue J-10, T7N, R12W, a portion of the N1/2 of the N1/2 of the SW1/4 and a small portion of the SE1/4 of the SW1/4 of the NW1/4 of Section 19, S.B.B.M. A line transect survey was conducted on 30 January and 6 February 2016 to inventory biological resources. The proposed project area has three different habitat types and levels of disturbance. It is likely the entire site was historically characteristic of saltbush (*Atriplex* spp.), Joshua tree (*Yucca brevifolia*) and California juniper (*Juniperus californica*) habitat. A total of thirty plant species were observed during the line transect survey. A total of twenty-three 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 and are not expected to be present within the study site. No burrowing owls (*Athene cunicularia*) or sign were observed during the field survey. However, due to potential cover sites within the study area, a survey for burrowing owls should be conducted within 30 days prior to ground disturbing activity to ensure no burrowing owls have taken up residence in the project site. If burrowing owls are discovered, the California Department of Fish and Wildlife (CDFW) should be consulted prior to ground disturbing activities. Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. If at all possible, removal of vegetation should be avoided during the breeding season (spring) of birds. If vegetation removal will occur during the nesting season, a survey should be conducted within one week prior to removal. If active bird nests are found, impacts should be avoided unless the proper permits are obtained. The proposed project site was not located within the geographic range of the Mohave ground squirrel (*Xerospermophilus mohavensis*). No other state or federally listed species are expected to occur within the proposed project area. This project is not expected to result in a significant adverse impact to biological resources.

Development of single-family residences has been proposed for Tentative Tract Map 66842 (APNs 3153-021-032, 033, 034, 035, 036, 038 and 3153-046-065), Lancaster, California (Figure 1). Development would include installation of paved 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.

Study Area

The 22.73 acre (9.1 ha) study area was located east of 40th Street West and north of Avenue J-9 and Avenue J-10, T7N, R12W, a portion of the N1/2 of the N1/2 of the SW1/4 and a small portion of the SE1/4 of the SW1/4 of the NW1/4 of Section 19, S.B.B.M. (Figure 2).

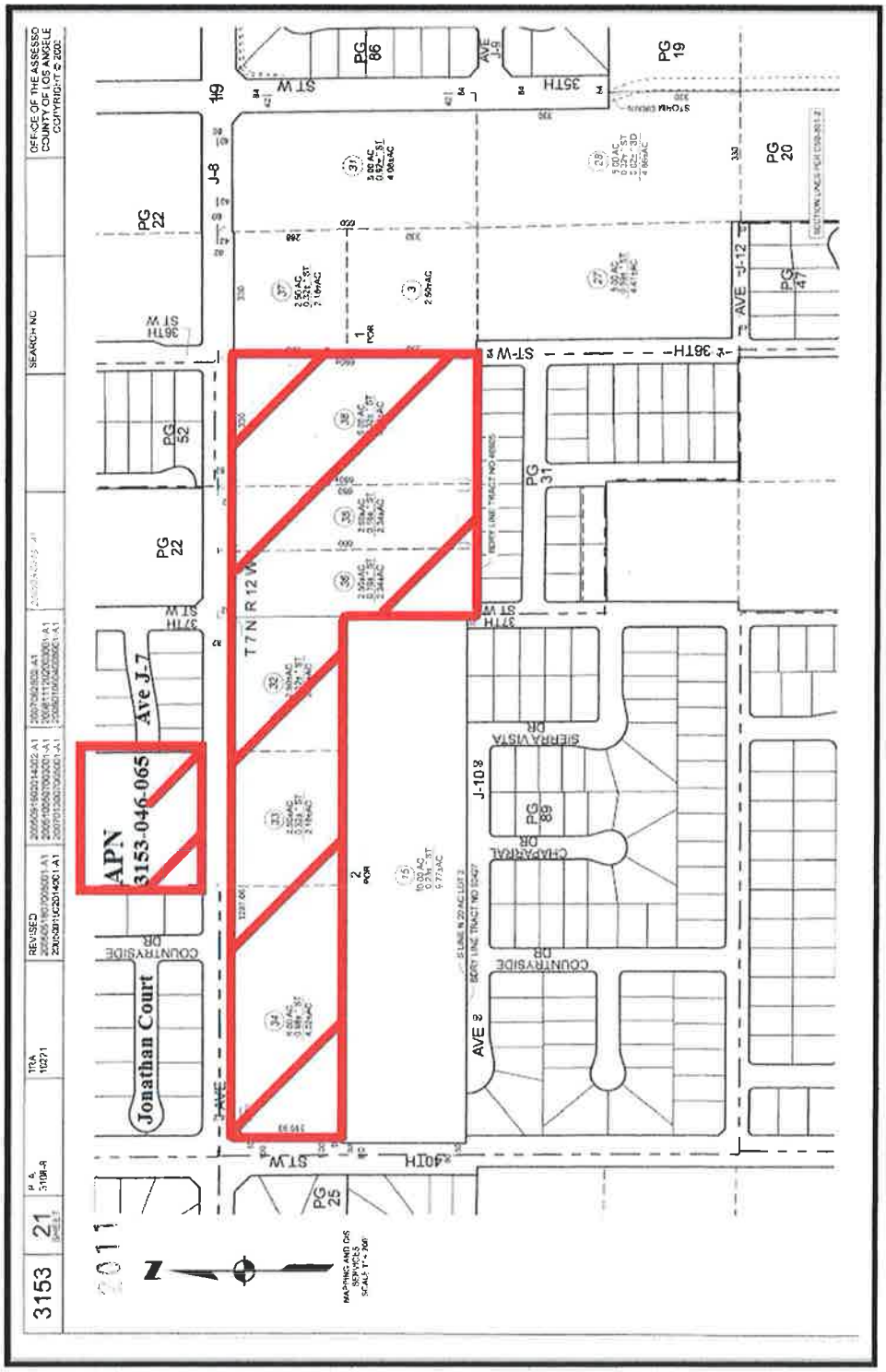


Figure 1. Approximate location of proposed project area as depicted on APN map.

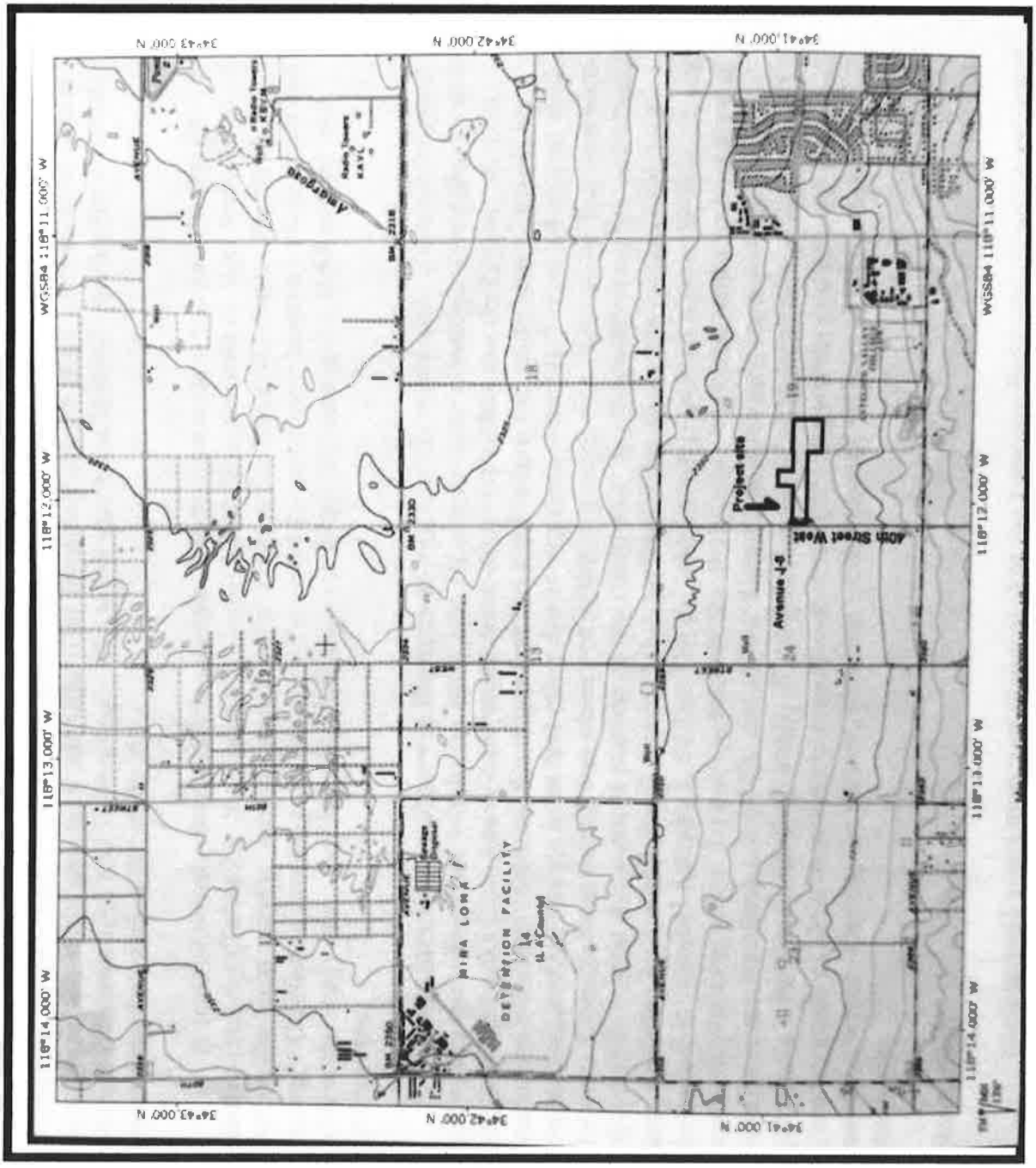


Figure 2. General location of study area as depicted on excerpt from Lancaster West, U.S.G.S., Quadrangle Map, 1974.

Avenue J-8 formed the northern boundary of the main portion of the study site (APNs 3153-021-032, 033, 034, 035, 036, and 038). The western boundary was formed by 40th Street West. Single-family housing existed west of 40th Street West. A constructed drainage existed adjacent to the eastern boundary. Joshua tree, juniper tree, desert scrub habitat existed east of this drainage channel. The southern boundary of the study site was formed by a cinder block wall and single-family housing. Avenue J-8 formed the southern boundary of a small portion of the study site, APN 3153-046-065. Single-family housing existed on the west, north, and east sides of this portion of the study site (Figure 3).

Methods

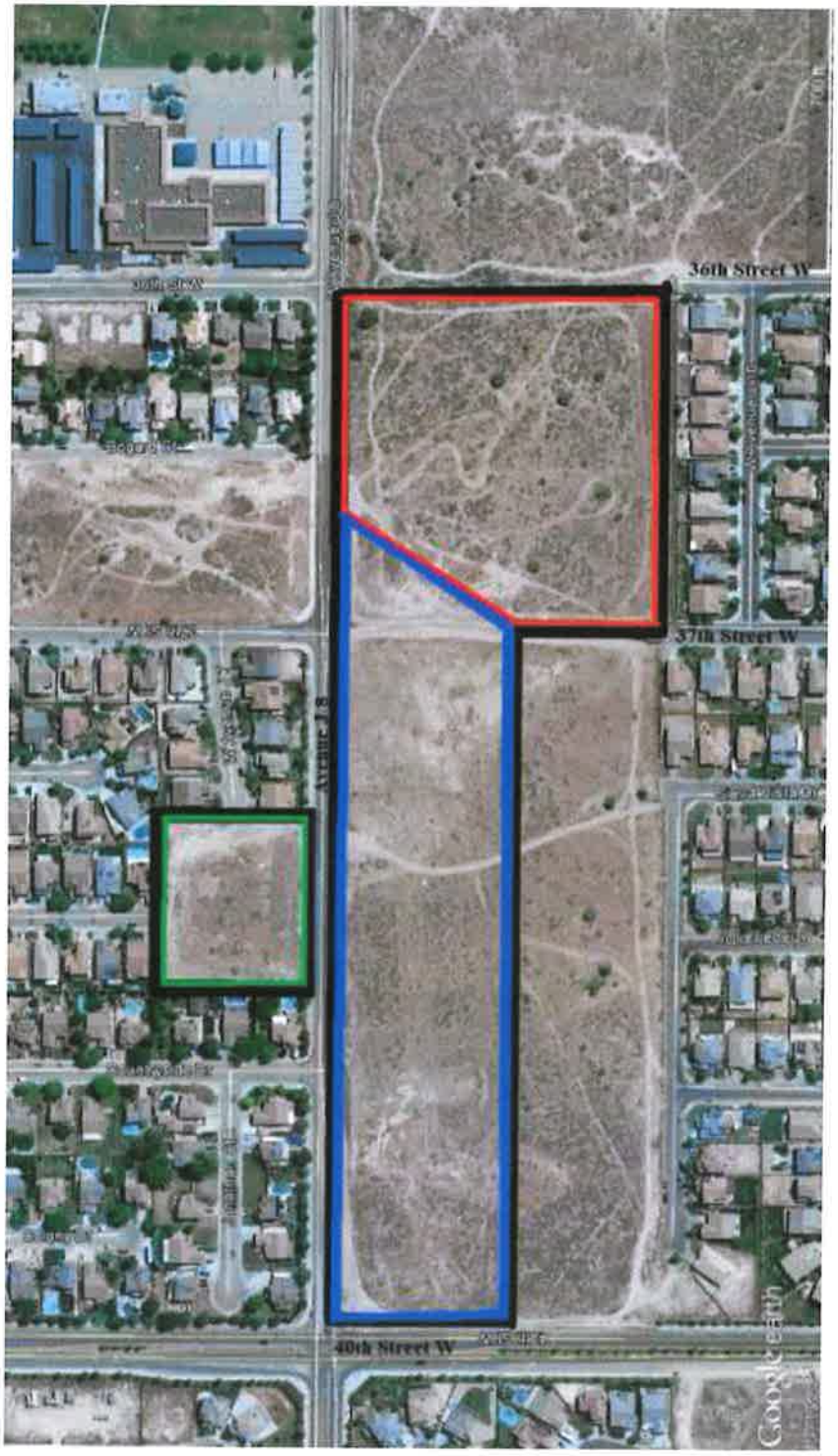
A line transect survey was conducted to inventory plant and wildlife species occurring within the proposed project area (Cooperrider et al. 1986, Davis 1990). Line transects were walked in an east-west orientation within the study site. Line transects ranged from approximately 330 to 1,320 feet (106 to 426 m) long and were spaced from about 33 to 75 feet (11 to 24 m) apart depending on vegetative cover and condition of the study site (U.S. Fish & Wildlife Service 2010).

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). A previous biological resource assessment (Hagan. 2006) accomplished for this site was reviewed prior to the field survey. 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). An aerial photograph of the study site was obtained from Google Earth (Figure 3). Representative photographs were taken of the study site (Figures 4 and 5).

Results

A total of 28 line transects were walked on 30 January and 6 February 2016 to inventory biological resources. Weather conditions consisted of cool temperatures (estimated 65 degrees F), 0% cloud cover, and slight breeze. A clay, clay sandy loam, and sandy surface soil textures were characteristic throughout the study area. Clay pans and low dunes were observed within the western portion of the study site. A drainage channel, oriented north south, was located immediately south of 37th Street West within approximately the midway point of the study site. Topography of the study site ranged from approximately 2,363 to 2,367 feet (762 to 764 m) above sea level.

There were three distinct areas of habitat present within the proposed project site (Figure 3). The northernmost portion was characteristic of a dirt lot with remnant Joshua trees (*Yucca brevifolia*) (Figure 4, top). The western portion was characteristic of a highly disturbed desert scrub habitat (Figure 4, bottom). The eastern 10 acres was characteristic of a highly disturbed saltbush (*Atriplex* spp.), Joshua tree and California juniper (*Juniperus californica*) habitat (Figure 5, bottom). A total of thirty plant species were observed during the line transect survey (Table 1). Shadscale (*Atriplex confertifolia*) was the dominant perennial shrub species within the study site. Brome (*Bromus* spp.), schismus (*Schismus sp.*), and red-stemmed filaree (*Erodium cicutarium*) were the dominant annual species within the study area. No sensitive plant species were observed within the study site.



Red polygon is Joshua tree, juniper tree, desert scrub habitat.
Blue polygon is desert scrub habitat.
Green polygon is dirt lot with remnant Joshua trees.

Figure 3. Aerial photo showing surrounding land uses, and habitat types, Jun 2015, Google Earth.

APN 3153-046-065

APNs 3153-021-032, 033, 034

Figure 4. Photos showing general habitat characteristics; top: northern portion of study site, bottom: western portion of study site.

APNs 3153-021-035, 036, 038

Channel receiving drainage off 37th Street West

Figure 5. Photos showing general habitat characteristics of the eastern 10 acres of the study site (top photo) and the constructed drainage within the middle of the study site (bottom photo).

Table 1. List of plant species that were observed during the line transect survey of Tentative Tract Map 66842, Lancaster, California.

Common Name	Scientific Name
Joshua tree	*Yucca brevifolia*
Mule fat	*Baccharis salicifolia*
California juniper	*Juniperus californica*
Great basin sagebrush	*Artemisia tridentata*
Shadscale	*Atriplex confertifolia*
Four-wing saltbush	*Atriplex canescens*
Peachthorn	*Lycium cooperi*
Cotton thorn	*Tetradymia spinosa*
Hop sage	*Grayia spinosa*
Winterfat	*Eurotia lanata*
Mormon tea	*Ephedra nevadensis*
Matchweed	*Gutierrezia lucida*
Rabbit brush	*Chrysothamnus nauseosis*
Silverscale	*Atriplex argentea*
Skeleton weed	*Eriogonum* sp.
Alkali heath	*Frankenia grandfolia*
Dune primrose	*Oenothera deltoides*
Loco weed	*Astragalus* sp.
Autumn vinegar-weed	*Lessingia germanorum*
Saltgrass	*Distichlis spicata*
Schismus	*Schismus* sp.
Red stemmed filaree	*Erodium cicutarium*
Horseweed	*Canyza honariensis*
Russian thistle	*Salsola iberica*
Tumble mustard	*Sisymbrium altisissiimum*
Five-hook bassia	*Bassia hyssopifolia*
Cheatgrass	*Bromus tectorum*
Foxtail barley	*Hordeum leporinum*
Clover	Family: Fabaceae
Annual burweed	*Franseria acanthicarpa*

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of Tentative Tract Map 66842, Lancaster, California.

Common Name	Scientific Name
Rodents	Order: Rodentia
Kangaroo rat	*Dipodomys* sp.
Pocket gopher	*Thomomys bottae*
California ground squirrel	*Citellus beecheyi*
Desert cottontail	*Sylvilagus auduboni*
Coyote	*Canis latrans*
Domestic dog	*Canis familiaris*
California quail	*Callipepla californica*
Mourning dove	*Zenaida macroura*
Rock dove	*Columba livia*
Black-chinned hummingbird	*Archilochus alexandri*
Common flicker	*Colaptes auratus*
Common raven	*Corvus corax*
Black Phoebe	*Sayornis nigricans*
Say's phoebe	*Sayornis saya*
Northern mockingbird	*Mimus polyglottos*
Loggerhead shrike	*Lanius ludovicianus*
Horned lark	*Eremophila alpestris*
White crowned sparrow	*Zonotrichia leucophrys*
House sparrow	*Passer domesticus*
Darkling beetle	*Coelocnemis californicus*
Harvester ants	Order: Hymenoptera
Ants, black, small	Order: Hymenoptera

A total of twenty-three wildlife species, or their sign were observed during the line transect survey (Table 2). No desert tortoises (*Gopherus agassizii*) or their sign were observed during the field survey. No burrowing owl (*Athene cunicularia*) or sign were observed within the study site. California ground squirrel (*Citellus beecheyi*) burrows were observed within the study site.

Trash dumps containing yard waste, tires, and construction debris were commonly observed throughout the study site. Spoil piles and fill material were observed throughout the eastern portion of the study site. Several old excavations were observed in the eastern portion of the study site. Scattered litter was observed throughout the study site. Off road vehicle trails/tracks and dirt roads were present throughout the study site. An individual walking a dog was observed within the study site. Two heavily graded constructed drainages were observed, one aligned with 37th Street West (present within the study site) and one off-site, adjacent to the eastern boundary, and aligned with 36th Street West.

Discussion

Annual species have been observed germinating and flowering within the Antelope Valley at the time the field survey was conducted. However, it is probable that some annual species were not 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).

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, but they will have less cover and foraging habitat available. A previous biological resource assessment (Hagan 2006) was reviewed and compared to the results of this survey. Two new housing tracts have been established adjacent to the study site. The study site was heavily disturbed in 2006 and has continued to deteriorate. During a previous field survey accomplished in May 2006 an additional twenty-one plant species and an additional nine wildlife species were observed. During May 2006 additional impacts were occurring within the study site not observed during the 2016 survey. At that time plowed up vegetation debris, plow furrows, and a water truck were observed on site. A construction trailer and staging area were located in APN 3153-046-065. These impacts account for some of the decrease in species. The drainage channel within the study site is being actively graded and would also account for a decrease in species number. Although the current survey was accomplished at the end of January and early February many of the species would still be easily observable.

Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. The vegetation within the study site provides potential roosting and nesting sites for birds. If at all possible, removal of the vegetation should be avoided during the breeding season (spring) of birds. If vegetation tree removal will occur during the nesting season, a survey should be conducted within one week prior to removal. If active bird nests are found, impacts should be avoided unless the proper permits are obtained.

Table 3. List of wildlife species that may occur within the study area, Tentative Tract Map 66842, Lancaster, California.

Common Name	Scientific Name
Antelope ground squirrel	*Ammospermophilus leucurus*
Deer mouse	*Peromyscus maniculatus*
Merriam kangaroo rat	*Dipodomys merriami*
Gopher snake	*Pituophis melanoleucus*
Mojave rattlesnake	*Crotalus scutulatus*
Side blotched lizard	*Uta stansburiana*
Western whiptail	*Cnemidophorus tigris*
American kestrel	*Falco sparverius*
European starling	*Sturnus vulgaris*
Western meadowlark	*Sturnella neglecta*
Fly	Order: Diptera
Yucca moth	Order: Lepidoptera
Butterfly (painted lady)	Order: Lepidoptera

Burrowing owls are considered a species of special concern by the CDFW. No burrowing owls or their sign were observed during the survey. California ground squirrel burrows could be potential future cover sites for burrowing owls. A survey for burrowing owls should be conducted within 30 days prior to ground disturbing activities to ensure no burrowing owls have taken up residence in the project site. If burrowing owls are discovered the CDFW should be consulted prior to construction to determine if mitigation for this species is required.

The desert tortoise is a state and federally listed threatened species. No desert tortoises or their sign were observed during the field survey. Based on field observations desert tortoises are not expected to occur within the study area. No mitigation for this species is recommended.

The Mohave ground squirrel is a state listed threatened species. The proposed project area was not located within the geographic range of the Mohave ground squirrel. The western limit of the geographic range of the Mohave ground squirrel is currently thought to be Highway 14. The habitat within the study area was not suitable to support Mohave ground squirrels. No mitigations for Mohave ground squirrel 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 Game 2002, Smith and Berg 1988, U.S. Fish & Wildlife Service 1990).

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).

This project is not expected to result in a significant adverse impact to biological resources.

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