Biological Resource Assessment of
TTM 62485
Lancaster, California

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Mark Hagan, Wildlife Biologist
44715 17th Street East
Lancaster, CA 93535
(661) 723-0086
(661) 433-9956 (M)

B.S. Degree, Wildlife Management
Humboldt State University

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Abstract

Development has been proposed for TTM 62485, Lancaster, California. The approximately 10 acre (4 ha) study area was located south of Nugent Street and west of 30th Street East, T7N, R11W, the NE1/4 of the SE1/4 of the SE1/4 of Section 18, S.B.B.M. A line transect survey was conducted on 24 and 25 September 2020 to inventory biological resources. The proposed project area was characteristic of a highly disturbed field. A total of eighteen plant species and sixteen 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 squirrel burrows (*Citellus beecheyi*) were present which can provide potential future cover sites for burrowing owls. 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. No Joshua trees (*Yucca brevifolia*) are present within or adjacent to the study site. 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.

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 TTM 62485. TTM 62485 includes APNs 3150-027-008 and 025 (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.

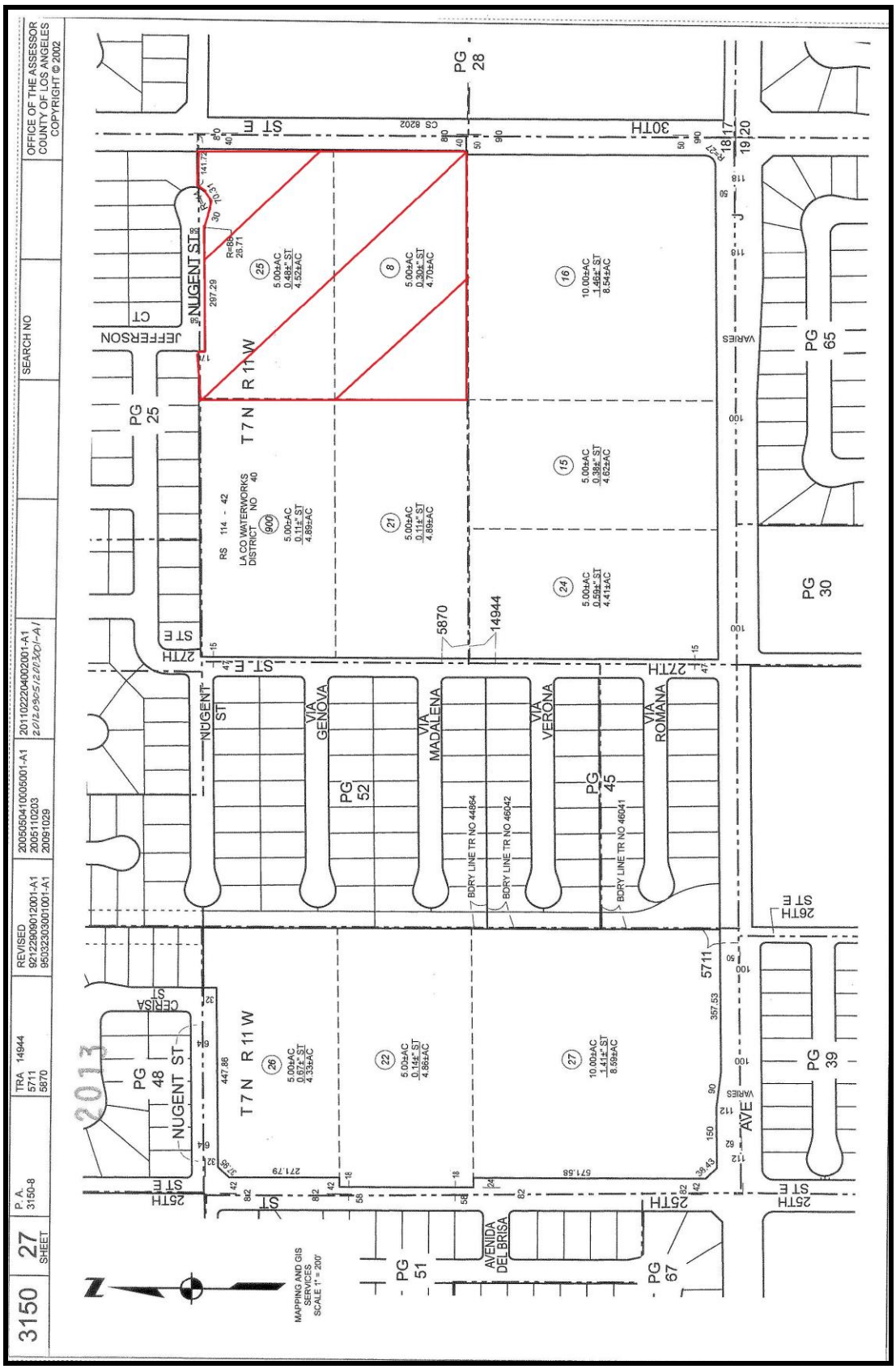

Figure 1. Location of proposed project site as depicted on APN map.

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 10 acre (4 ha) study area was located south of Nugent Street and west of 30th Street East, T7N, R11W, the NE1/4 of the SE1/4 of the SE1/4 of Section 18, S.B.B.M. (Figures 2 and 3). Nugent Street formed the northern boundary of the study site. Single-family homes were present north of Nugent Street. A highly disturbed field was present to the south of the study site. The eastern boundary was formed by 30th Street East. Highly disturbed fields were present east of 30th Street East. A block wall formed the northwest boundary of the study site. Water tanks were present west of this block wall. A highly disturbed field was present adjacent to the southwest boundary of the study area. 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 within the study site. Line transects were approximately 660 feet (213 m) long and spaced approximately 50 feet (16 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 (CNDDB 2018), previous reports (Hagan 2005a-b, 2020a-c), and the USGS topographic map were reviewed. Photographs of the study site were taken (Figure 4).

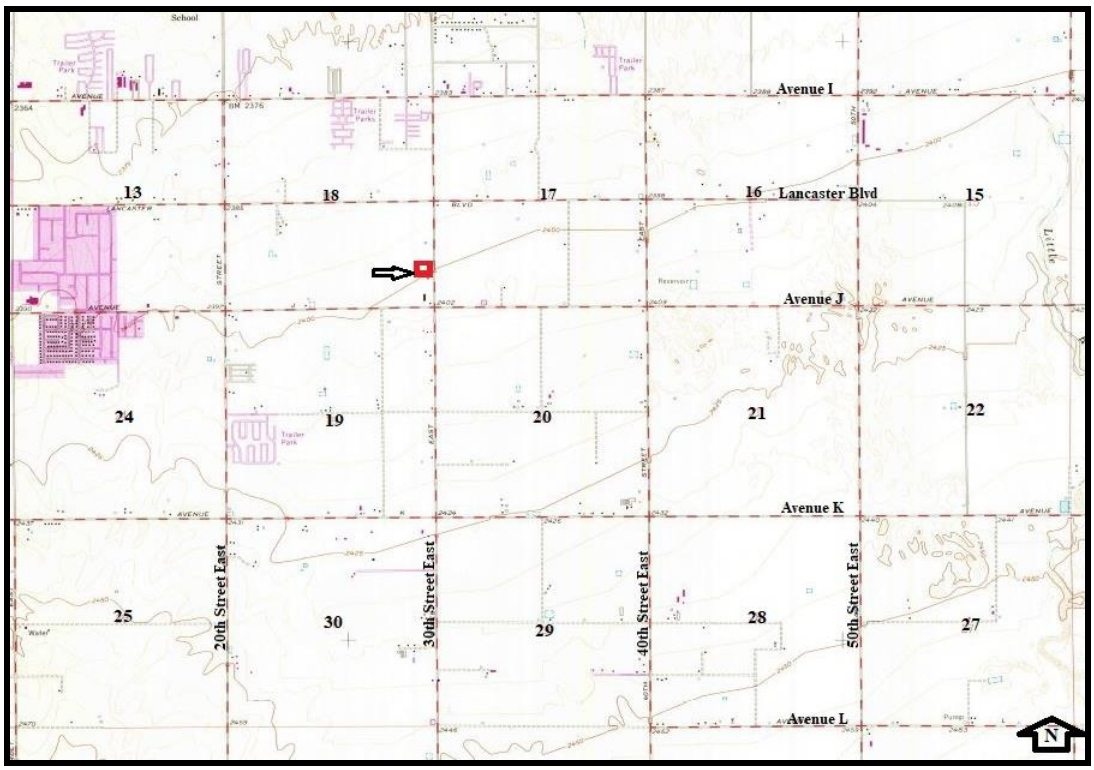

Figure 2. Approximate location of study area as depicted on U.S.G.S. Quadrangle, Lancaster East, Calif., 7.5', 1974.

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 photographs depicting general site characteristics. Top photograph is view from southeast corner looking northwest. Bottom photograph is from center of the west boundary looking northeast.

Results

A total of 12 line transects were walked on 24 and 25 September 2020. Weather conditions consisted of warm temperatures (estimated 60 to 65 degrees F), 100% smoke cover, and no wind during surveys on both days. Smoke cover was lighter on 25 September 2020. Sandy loam and clay sandy loam surface soil textures were present within 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 a highly disturbed field. A total of eighteen plant species were observed during the line transect survey (Table 1). The project site was devoid of shrubs. Red stemmed filaree (*Erodium cicutarium*), and invasive grasses (*Bromus* spp.) were 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. No Joshua trees (*Yucca brevfolia*) were present within or adjacent to the study site.

A total of sixteen 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 observed within the study area provide future potential cover sites for burrowing owls. 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 in the northwest corner and along the northern boundary. Vehicle tracks were observed within the study site. Dirt roads were present within study site. Broken concrete and asphalt were observed within the study site. Gravel was observed within the northern portion of the study site.

Discussion

It is likely that most annual species were visible during the time the field survey was performed. Greater than 90% of the annual biomass represented within the project site consisted of weedy species (Table 1). A portion of the area appeared to have been previously used for a parking area based on the gravel coverage in the northern portion. Google aerial photography shows the area was used as a construction staging site in 2004 during the construction of the housing north of the study site. 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).

Table 1. List of plant species that were observed during the line transect survey of TTM 62485, Lancaster, California.

Common Name	Scientific Name
Silverscale	*Atriplex argentea*
Arrow scale	*Atriplex phyllostegia*
Desert straw	*Stephanomeria pauciflora*
Fiddleneck	*Amsinckia tessellata*
Goldfields	*Lasthenia californica*
Skeleton weed	*Eriogonum* sp.
Davy gilia	*Gilia latiflora davyi*
Horseweed	*Canyza honariensis*
Prickly lettuce	*Lactuca seriola*
Russian thistle	*Salsola iberica*
Oats	*Avena sativa*
Schismus	*Schismus* sp.
Foxtail barley	*Hordeum leporinum*
Red brome	*Bromus rubens*
Cheatgrass	*Bromus tectorum*
Red stemmed filaree	*Erodium cicutarium*
Tansy mustard	*Descurainia sophia*
Tumble mustard	*Sisymbrium altisissiimum*

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of TTM 62485, Lancaster, California.

Common Name	Scientific Name
Rodents	Order: Rodentia
California ground squirrel	*Citellus beecheyi*
Kangaroo rat	*Dipodomys* sp.
Pocket gopher	*Thomomys bottae*
Domestic cat	*Felis catus*
Domestic dog	*Canis familiaris*
Rock dove	*Columba livia*
Mourning dove	*Zenaida macroura*
Common raven	*Corvus corax*
Say's phoebe	*Sayornis saya*
Northern mockingbird	*Mimus polyglottos*
Horned lark	*Eremophila alpestris*
Western meadowlark	*Sturnella neglecta*
Butterfly	Order: Lepidoptera
Spider	Order: Araneida
Harvester ants	Order: Hymenoptera

Table 3. List of wildlife species that may occur within the study area, TTM 62485 Lancaster, California.

Common Name	Scientific Name
Deer mouse	*Peromyscus maniculatus*
Merriam kangaroo rat	*Dipodomys merriami*
Desert cottontail	*Sylvilagus auduboni*
Side blotched lizard	*Uta stansburiana*
House finch	*Carpodacus mexicanus*
House sparrow	*Passer domesticus*
Dragonfly	Order: Odonata
Ants, small, black	Order: Hymenoptera
Fly	Order: Diptera

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.

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 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 within or around this study site. No protection measures are recommended for the 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 future cover sites for burrowing owls. No recent observations of burrowing owls have been documented in close proximity to the study site (CNDDB 2018, eBird 2020).

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 at 50th Street East and Avenue L and at 50th Street East and Avenue N in April 2020 both in active agricultural fields (eBird 2020). Swainson's hawk observations within Lancaster have been strongly correlated to active agricultural fields (eBird 2020, CNDDB 2018). The study site is not adjacent or in close proximity to any active agricultural fields. The study site does not appear to have potential nesting or foraging habitat for Swainson's hawks. Data already 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. No Joshua trees were 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 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.

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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