

2023 Biological Resource Assessment of
55 Acre Parcel
Lancaster, California

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Abstract

Development has been proposed for an approximately 55 acre (22 ha) parcel, Lancaster, California. The study area was located south of Avenue H and west of Sierra Highway, T7N, R12W, a portion of the NW1/4 of Section 10, S.B.B.M. A line transect survey was conducted on 27, 28, and 29 April 2023 to inventory biological resources and accomplish a preliminary jurisdictional wetland delineation. The proposed project area was characteristic of a heavily disturbed lot previously prepared for development. A total of 52 plant species and 29 wildlife species or their sign were observed during the line transect survey. No desert tortoises (*Gopherus agassizii*) or their sign were observed within the study area. No desert kit foxes (*Vulpes macrotis*) or their sign were observed during the line transect survey. No silvery legless lizards (*Anniella pulchra pulchra*) or their sign were observed during the line transect survey. No burrowing owls (*Athene cunicularia*) were observed during the field survey. California ground squirrels (*Citellus beecheyi*) and their burrows were present within the study site. California ground squirrel burrows can provide future potential cover sites for burrowing owls. The trees within the study area provide potential nesting sites for migratory birds. No Swainson's hawk nest sites have been observed within 5 miles of the study site. The study area does not appear to provide sufficient forage for raptors. The proposed project site was located within the geographic range of the Mohave ground squirrel (*Xerospermophilus mohavensis*). The habitat within the study area was not suitable to support Mohave ground squirrels. No sensitive plants, specifically, Joshua tree (*Yucca brevifolia*), alkali mariposa lily (*Calochortus striatus*), Lancaster milk-vetch (*Astragalus preussii* var. *laxiflorus*), Rosamond eriastrum (*Eriastrum rosamondense*), 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 disturbance. No other state or federal listed species are expected to occur within the study area. No blue line streams were present within the study area. No natural ephemeral streams or washes occur within the study area.

Recommended Protection Measures:

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 occurs 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 500 feet (161 m) around raptor nests, and 50 feet (16.1 m) around active migratory non-raptor 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.

Significance: Given the lack of sensitive species, adjacent land uses, and highly impacted condition of the study area this project is not expected to result in a significant adverse impact to biological resources.

Development has been proposed for a 55 acre (22 ha) parcel, Lancaster, California (Figure 1). This parcel includes APNs: 3135-001-900, a portion of 901, 903 to 915, 917, and 918. Development would include installation of paved parking areas, access roads and utilities (natural gas, water, sewer, electric, telephone). The entire project area would be regraded prior to construction activities.

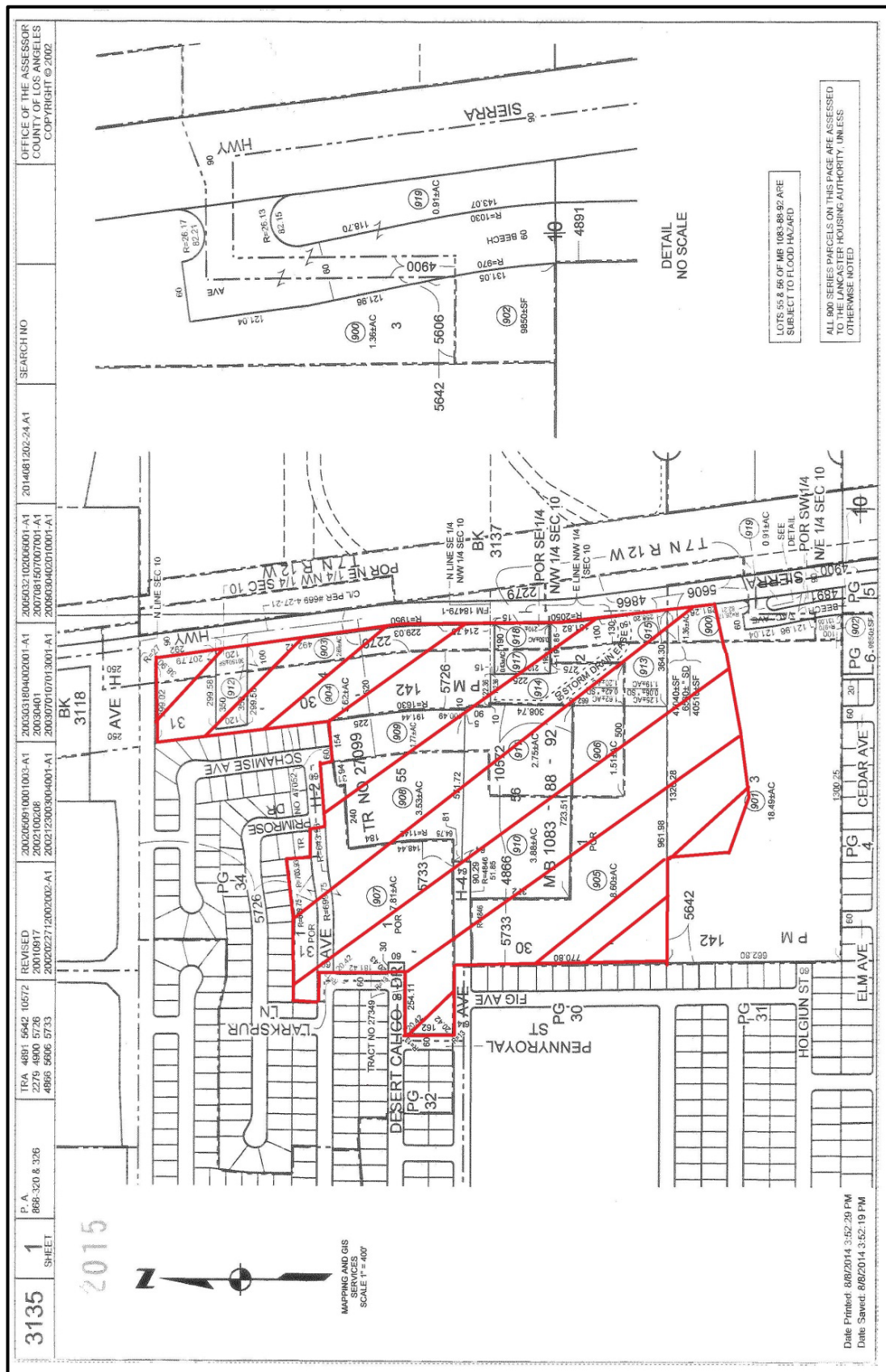
An environmental analysis should be conducted prior to any development project. An assessment of biological resources is an integral part of environmental analyses (Gilbert and Dodds 1987). The purpose of this study was to provide an assessment of biological resources potentially occurring within, or utilizing the proposed project area. Specific focus was on the presence/absence of protected, rare, threatened and endangered species of plants and wildlife that would be expected to use the existing habitat. Species of concern included the desert tortoise (*Gopherus agassizii*), Mohave ground squirrel (*Xerospermophilus mohavensis*), desert kit fox (*Vulpes macrotis*), silvery legless lizard (*Anniella pulchra pulchra*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), Joshua tree (*Yucca brevifolia*), alkali mariposa lily (*Calochortus striatus*), Lancaster milk-vetch (*Astragalus preussii* var. *laxiflorus*), Rosamond eriastrium (*Eriastrum rosamondense*), and Barstow woolly sunflower (*Eriophyllum mohanense*).

Study Area

The approximately 55 acre (22 ha) irregular shaped study area was located south of Avenue H and west of Sierra Highway, T7N, R12W, a portion of the NW1/4 of Section 10, S.B.B.M. (Figures 2 and 3). The eastern boundary was formed by Sierra Highway. Disturbed saltbush scrub, detention basin, railroad tracks, and commercial development existed east of Sierra Highway. The southern boundary was formed by Whit Carter Park. Residential housing, paved roads, block walls, and wooden fences existed along most of the northern and all the western boundaries of the study area. Avenue H formed the northeastern boundary of the study area. A commercial facility was present north of Avenue H.

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 and north-south orientation. North-south line transects ranged from 290 to 1,750 feet (88 to 533 m) long, east-west line transects ranged from 195 to 1,290 feet (59 to 393 m) long (U.S. Fish & Wildlife Service 2010). Transect spacing was adjusted based on conditions within the study area (U.S. Fish & Wildlife Service 2010). This transect spacing was considered sufficient to provide coverage for each species of concern given site conditions. 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



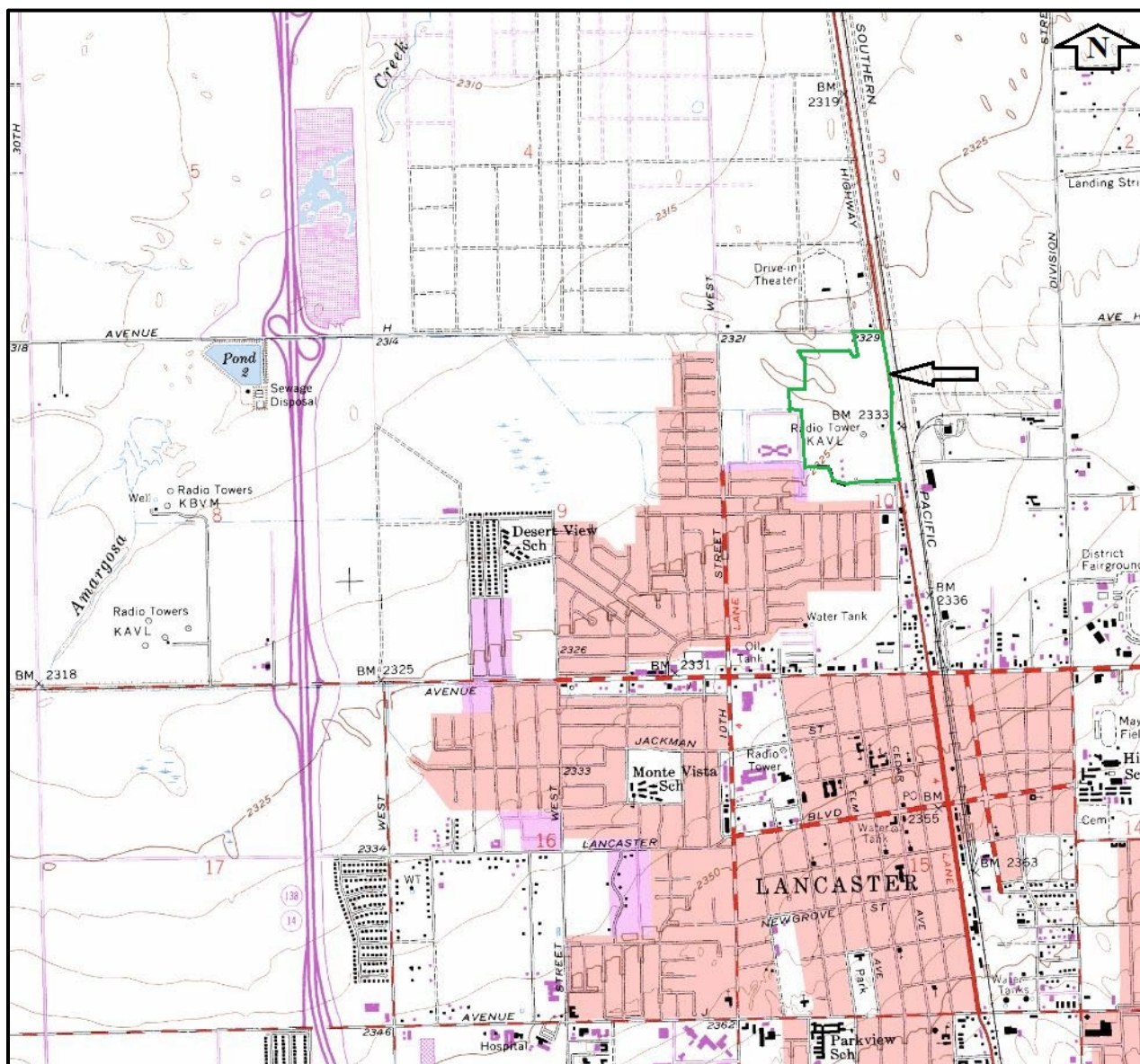
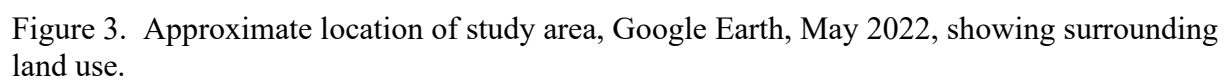


Figure 2. Approximate location of study area as depicted on excerpt from USGS Quadrangle, Lancaster West, California, 7.5' 1974.



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). Evaluations of aerial and ground photography were made to determine areas of potential Waters of the State to include wetlands. Transects were walked around areas appearing to have potential status as either Wetlands of the State or Waters of the State and dominant plant species, water and soil conditions noted.

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,). Other sources were also used to aid in plant identification (calflora.org 2023, calphotos.berkeley.edu 2023, Charlton 2023). 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). Historical aerial photographs and the USGS topographic map of the study area and surrounding vicinity were reviewed. Review of documented sightings was accomplished using the California Natural Diversity Database (CNDD 2020) and Ebird.org. Previous surveys in the area (Hagan 2018) were reviewed for historical sightings and background information. Photographs of the study site were taken (Appendix A).

Results

A total of 45 line transects were walked on 27, 28, and 29 April 2023. Weather conditions on 27 April 2023 consisted of warm temperatures (estimated 75 degrees F), 5% hazy cloud cover, and slight breeze. Weather conditions on 28 April 2023 consisted of warm temperatures (estimated 75 degrees F), 0% hazy cloud cover, and no wind. Weather conditions on 29 April 2023 consisted of warm temperatures (estimated 60 degrees F), 1% hazy cloud cover, and slight breeze. Compacted clay loam surface soil textures were observed throughout the study area. A few small areas of sandy clay loam were also observed within the study area. No blue line streams were found on the USGS topographic map within the study area. No natural ephemeral streams or washes were observed within the study area. Review of aerial photography indicated the historical site preparation predated 2003. Topography of the study area ranged from approximately 2,593 to 2,663 feet (836 to 859 m) above sea level.

The proposed project area was characteristic of a heavily disturbed lot previously prepared for development. A total of 52 plant species were observed during the line transect survey (Table 1). A few patches of four-wing saltbush (*Atriplex canescens*) and rabbit brush (*Chrysothamnus nauseosus*) were observed within the study area. A small patch of cut Willow sp. (*Salix* sp.) was observed in the northernmost portion of the north detention basin. One large cottonwood tree (*Populus fremontii*) was located within the far southeast corner of the study area surrounded by wood chip mulch.

Table 1. List of plant species that were observed during the line transect survey of 55 Acre Parcel, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Cottonwood tree	<i>Populus fremontii</i>
American elm	<i>Ulmus americana</i>
Salt cedar	<i>Tamarix ramosissima</i>
Locust	<i>Robinia</i> sp.
Willow	<i>Salix</i> sp.
Rabbit brush	<i>Chrysothamnus nauseosis</i>
Shadscale	<i>Atriplex confertifolia</i>
Four-wing saltbush	<i>Atriplex canescens</i>
Common tarweed	<i>Hemizonia pungens</i>
Arrow scale	<i>Atriplex phyllostegia</i>
Parry saltbush	<i>Atriplex parri</i>
Spreading alkaliweed	<i>Cressa truxillensis</i>
Desert straw	<i>Stephanomeria pauciflora</i>
Cheeseweed (small mallow)	<i>Malva parviflora</i>
Desert dandelion	<i>Malacothrix glabrata</i>
Comet blazing star	<i>Mentzelia albicaulis</i>
Snakeshead	<i>Malacothrix coulteri</i>
Silver puff	<i>Uropappus lindleyi</i>
Fremont pincushion	<i>Chaenactis fremontii</i>
Tidy tips	<i>Layia platyglossa</i>
Woody bottlewasher	<i>Camissonia boothii</i>
Comb-bur	<i>Pectocarya recurvata</i>
Gilia	<i>Gilia minutiflora</i>
Small flowered forget-me-not	<i>Cryptantha</i> sp.
Goldfields	<i>Lasthenia californica</i>
Black-eyed susan	<i>Rudbeckia hirta</i>
Common tarweed	<i>Hemizonia pungens</i>
Juncus	<i>Juncus</i> sp.
Pineapple weed	<i>Matricaria discoidea</i>
Hairy podded pepperweed	<i>Lepidium lasiocarpum lasiocarpum</i>
Fiddleneck	<i>Amsinckia tessellata</i>
Clover	Family: Fabaceae
Tansy mustard	<i>Descurainia sophia</i>
Tumble mustard	<i>Sisymbrium altissimum</i>
Cattail	<i>Typha</i> sp.
Russian knapweed	<i>Rhaponticum repens</i>
Russian thistle	<i>Salsola iberica</i>
Heart podded whitetop	<i>Lepidium draba</i>
Perennial pepperweed	<i>Lepidium latifolium</i>
Five-hook bassia	<i>Bassia hyssopifolia</i>
Saltgrass	<i>Distichlis spicata</i>
Bermuda grass	<i>Cynodon dactylon</i>

Table 1 continued. List of plant species that were observed during the line transect survey of 55 Acre Parcel, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Schismus	<i>Schismus</i> sp.
Squirrel-tail grass	<i>Hordeum jubatum</i>
Foxtail barley	<i>Hordeum leporinum</i>
Ripgut grass	<i>Bromus diandrus</i>
Red brome	<i>Bromus rubens</i>
Cheatgrass	<i>Bromus tectorum</i>
Red stemmed filaree	<i>Erodium cicutarium</i>
Annual burweed	<i>Franseria acanthicarpa</i>
Bunch grass, ornamental	Family: Poaceae
Tree, ornamental	

The dominant perennial species throughout the study area was perennial pepperweed (*Lepidium latifolium*). Squirrel-tail grass (*Hordeum jubatum*) was the dominant annual species throughout the study area. No Joshua trees, alkali mariposa lilies, Rosamond eriastrum, Lancaster milk-vetch, or Barstow woolly sunflower were observed within the study area. No suitable habitat was observed within the study area.

A total of 29 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. No bird nests were observed within the study area. 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. No silvery legless lizards were observed within the study site. California ground squirrel (*Citellus beecheyi*) burrows were observed within the study site. Swainson's hawk was not observed within the study area. Ebird observations indicated no Swainson's hawk had been sighted within 5 miles (8.05 km) of the study area within the last 5 years.

Small dump sites, a tire dump site, and scattered trash were observed within the study site. Vehicle tracks were observed within the study site. Dirt roads intersected the study site. Individuals and individuals walking their dogs were observed within the study site. Soil borings were observed within the study site. Evidence of fire was present within the southern portion of the study site. Mulch was observed within the southern portion of the study site by the park. Chain link fencing was present around one of the drainage channels. Chain link fence bisected the southeast portion of the study area. Utility manholes were observed within the study area.

Three detention basins were observed within the study site. The southern basin was approximately 6.75 acres, indicated on Figure 4 as map location 10. The northern basin was approximately 5 acres, indicated on Figure 4 as map location 11. The western basin was approximately 1.5 acres, indicated on Figure 4 as map location 15. One constructed channel was observed within the southeast portion of the study site. Seven swale-like features were observed within the study site. These swale-like features were all <1 acre in area. Two, <1 acre each,

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of the 55 Acre Parcel, 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>
Domestic dog	<i>Canis familiaris</i>
Domestic cat	<i>Felis catus</i>
Mourning dove	<i>Zenaida macroura</i>
Rock dove	<i>Columba livia</i>
Common raven	<i>Corvus corax</i>
Ash-throated flycatcher	<i>Myiarchus cinerascens</i>
Say's phoebe	<i>Sayornis saya</i>
Northern mockingbird	<i>Mimus polyglottos</i>
European starling	<i>Sturnus vulgaris</i>
House sparrow	<i>Passer domesticus</i>
House finch	<i>Carpodacus mexicanus</i>
Side blotched lizard	<i>Uta stansburiana</i>
Dragonfly	Order: Odonata
Painted lady butterfly	<i>Vanessa cardui</i>
Butterfly (white)	Order: Lepidoptera
Butterfly (blue/orange)	Order: Lepidoptera
Stone fly	Order: Diptera
House fly	Order: Diptera
Darkling beetle	<i>Coelocnemis californicus</i>
Bee, large, black	Order: Hymenoptera
European honey bees	Order: Hymenoptera
Spider	Order: Araneida
Grasshopper	Order: Orthoptera
Harvester ants	Order: Hymenoptera

depression-like areas were observed within the study site. Three <1 acre artificial wetlands were observed within the study site. Soils within all the water features were considered Pond-Oban complex (USDA 2023). No water features had standing water except the 3 artificial wetlands.

Discussion

Most annual vegetation is expected to have germinated and flowered at the time the field survey was conducted. The previous 2018 biological study noted that the study area was highly disturbed with individuals of native vegetation recolonizing scattered areas (Hagan 2018). More native annuals were noted during this 2023 survey but were low in number and sparsely distributed within the study area. Some of the non-native plant species noted in 2018 were no longer present such as the 5 species of cacti. However, there was not an appreciable change in the plant species presence that would be considered significant. Perennial pepperweed which was dominant in 2018 appeared to have increased in coverage. Although not observed, several wildlife species would be expected to occur within the proposed project area (Table 3).

Impacts such as trash dumping, human and pet use within the study area are expected to continue. This study site has been irretrievably impacted by grading, soil compaction, basin development, and surrounding residential housing. The area surrounding the study site has been developed. 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 a minimal loss of cover and foraging opportunities for the species occurring within and adjacent to the study area.

The desert tortoise is a state endangered and federal 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. Suitable habitat for desert tortoise was not present within or adjacent to the study area. Desert tortoises do not inhabit the study area. No protection measures are recommended for desert tortoises.

The Mohave ground squirrel (MGS) is a state listed threatened species. The proposed project site was located within the geographic range of the MGS. The western limit of the geographic range of the Mohave ground squirrel is currently thought to be Highway 14. Suitable habitat was not present within or adjacent to the study site. MGS do not inhabit the study area. No protection measures are recommended for MGS.

Silvery legless lizards are considered a species of special concern by the California Department of Fish and Wildlife (CDFW). Soils within the study area are too compacted and very little of the area has enough moisture to support silvery legless lizards. No protection measures are recommended for silvery legless lizards.

Burrowing owls are considered a species of special concern by the CDFW. No burrowing owls or their sign were observed within the study area. California ground squirrel burrows observed during the field survey would normally be expected to provide future cover

Table 3. List of wildlife species that may occur within the proposed study area, 55 Acre Parcel, Lancaster, California.

<u>Common Name</u>	<u>Scientific Name</u>
Deer mouse	<i>Peromyscus maniculatus</i>
Merriam kangaroo rat	<i>Dipodomys merriami</i>
Coyote	<i>Canis latrans</i>
Red-tailed hawk	<i>Buteo jamaicensis</i>
Horned lark	<i>Eremophila alpestris</i>
White crowned sparrow	<i>Zonotrichia leucophrys</i>
Wasp	Order: Hymenoptera
Tarantula wasp	<i>Pepsis formosa</i>
Ants, small	Order: Hymenoptera

sites for burrowing owls. Given the lack of burrowing owls during in both 2023 and 2018 it is considered this site is too impacted, lacks enough cover or forage, and is used too frequently by humans and pets to be suitable for burrowing owls. No protection measures are recommended for burrowing owls.

Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. A cottonwood tree and a few ornamental trees within the study site provide potential nesting sites migratory birds. No Swainson's hawks were observed or documented as occurring within or around the study site. No Swainson's hawk nest sites have been documented within 5 miles of the study site within the last 5 years. There is very little forage opportunity within the study area for Swainson's hawks and other raptors. The small concentration of willows that were present in the northern basin in 2018 have been cut down and although resprouting do not at this time provide potential nesting or foraging habitat for smaller migratory birds.

No suitable habitat for sensitive plant species was observed within the study site. Sometime prior to 2003 this area was probably clay pan and dunes that provided potential habitat for alkali mariposa lily. As noted in 2018 and still the case, the site has been graded, soils moved and compacted, and water diverted from the study site, making the habitat unsuitable for alkali mariposa lily populations or other sensitive plant species. Perennial pepperweed is rated by the California Exotic Pest Plant Council as CalEPPC A-1 (CalIPC 2018). The A rating documents aggressive invaders that displace natives and disrupt habitats. Perennial pepperweed as noted in 2018 has continued to colonize the study site and has effectively out-competed other plant species. Based on the results of the field survey sensitive plant species do not occur within the study area and no protection measures are recommended. No other state or federal listed species are expected to occur within the proposed project area (CDFW 2021, CDFW 2023, U.S. Fish & Wildlife Service 2016).

A preliminary jurisdictional wetland (waters) delineation looks for features which would require a permit from the US Army Corps of Engineers, State Water Board, or the California Department of Fish and Wildlife.

An area is wetland if, under normal circumstances the area has continuous or recurrent saturation of the upper substrate caused by groundwater, or shallow surface water, or both; the duration of such saturation is sufficient to cause anaerobic conditions in the upper substrate; and the area's vegetation is dominated by hydrophytes or the area lacks vegetation (State Water Resources Control Board (SWRCB) 2020). All artificial wetlands that are less than an acre in size and subject to operations and maintenance are not considered Waters of the State (SWRCB 2020). Being characterized as a wetland does not necessarily mean the wetland is jurisdictional. "Waters of the state" means any surface water or groundwater, including saline waters, within the boundaries of the state as defined within Porter-Cologne Act.

During the field survey, basins, a constructed channel, depressions, and artificial wetlands were observed (Figure 4). Water was only observed within the artificial wetlands. These artificial wetlands were <1 acre and based on SWRCB Implementation Guide are not considered regulated wetlands or waters of the state. None of the pre-construction topography remains within the study site. Aerial photography shows that the detention ponds and the constructed channel observed during this field survey were already present in 1994 (Figure 5). Water flow does seem to be present in this 1994 photograph (Figure 5). Representative photographs of the different water features were taken and are presented in Appendix B.

The 3 basins which occur within the study site are shown in map locations 10, 11, and 15 (Figure 4). These basins do not appear to receive flow from naturally occurring waters of the state but were designed as water control structures to control development runoff during rainfall events and overwatering situations. The constructed channel shown in map location 1 appears to have operated as the main flow source for the largest basin in 1994 but no longer appears to have a connection to that or any basin at this time. The shallow swales and small depressions appear to be developing from the overwatering occurrences at the Whit Carter Park. All of these swales were dominated by weedy species very similar to the larger basins and surrounding study site.

This area was engineered to move water flow created by development prior to 1994. It is expected the City of Lancaster already has a channel maintenance agreement from the Regional Water Quality Control Board. None of these features appear to be jurisdictional wetlands which would be regulated by the US Army Corps of Engineers or under Porter-Cologne and regulated by the State Water Board. The features within the study site would not be expected to require a Lake and Streambed Agreement regulated by the California Department of Fish and Wildlife. The only flow into this area appears to be from Whit Carter Park and housing irrigation and stormwater runoff from residential housing surfaces and the 1 constructed channel which runs under Sierra Highway which was intended to drain runoff between the Highway and the railroad tracks.



Figure 4. Photographic map of the current condition of and approximate location of water features evaluated for the preliminary wetland jurisdictional delineation (Google 2022). Numerals in black are map locations of the different features discussed in the text.



Figure 5. Historical aerial photograph from 1994 which indicates the study site had already been engineered as a water control area. The approximate location of the water features present in 1994 on study site were annotated in blue (UCSB 2023).

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:

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 500 feet (161 m) around raptor nests, and 50 feet (16.1 m) around active migratory non-raptor 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.

Significance: Given the lack of sensitive species, adjacent land uses, and highly impacted condition of the study area this project is not expected to result in a significant adverse impact to biological resources.

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Appendix A

Representative Photographs of Study Site







Appendix B

Preliminary Jurisdictional Wetland Delineation Photographs

All map locations referenced herein are shown on Figure 4



Constructed channel – map location #1



Representative photograph of swales – map locations 2 through 6 and 9



Representative of the 2 depressions – map locations 7 and 8



Representative of photographs of larger basins – map locations 10 and 11.



Representative photograph of artificial wetlands – map locations 12, 13, and 14.



Representative photograph of smaller basin – map location 15.