Biological Resource Assessment of
APNs 3153-025-019 and 043
Lancaster, California

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Abstract

Development has been proposed for APNs 3153-025-019 and 043, Lancaster, California. The approximately 30 acre (12 ha) study area was located north of Avenue K and west of 40th Street West, T7N, R13W, a portion of the SE1/4 of the SE1/4 of Section 24, S.B.B.M. A line transect survey was conducted on 9 October, 3 and 6 March 2023 to inventory biological resources. The study site was characteristic of an abandoned agricultural field. A total of 14 plant species and 14 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. No suitable habitat for desert tortoise was present within or adjacent to the study site. The proposed project site was not located within the geographic range of the Mohave ground squirrel (*Xerospermophilus mohavensis*). No suitable habitat for Mohave ground squirrels was present within or adjacent to the study site. No Mohave ground squirrels have been observed or documented within western Lancaster in the last 30 years. No burrowing owls (*Athene cunicularia*), or their sign were observed during the field survey. Uncovered underground water lines observed within the study area could provide future cover sites for burrowing owls. No desert kit foxes (*Vulpes macrotis)* or their sign were observed within the study site. Vegetation within the study area does not provide potential nesting sites for migratory birds. Swainson's hawk (*Buteo swainsoni*) nesting has not been documented within 5 miles of the study site. No suitable habitat was present for Northern California legless lizards (*Anniella pulchra*). No Joshua tree (*Yucca brevifolia*), alkali mariposa lily (*Calochortus striatus*), Rosamond eriastrum (*Eriastrum rosamondense)* were observed within the study site. No potential habitat for sensitive plant species is present within or adjacent to the study site. No other state or federally listed species are expected to occur within the proposed project area. No ephemeral washes were observed within the study area.

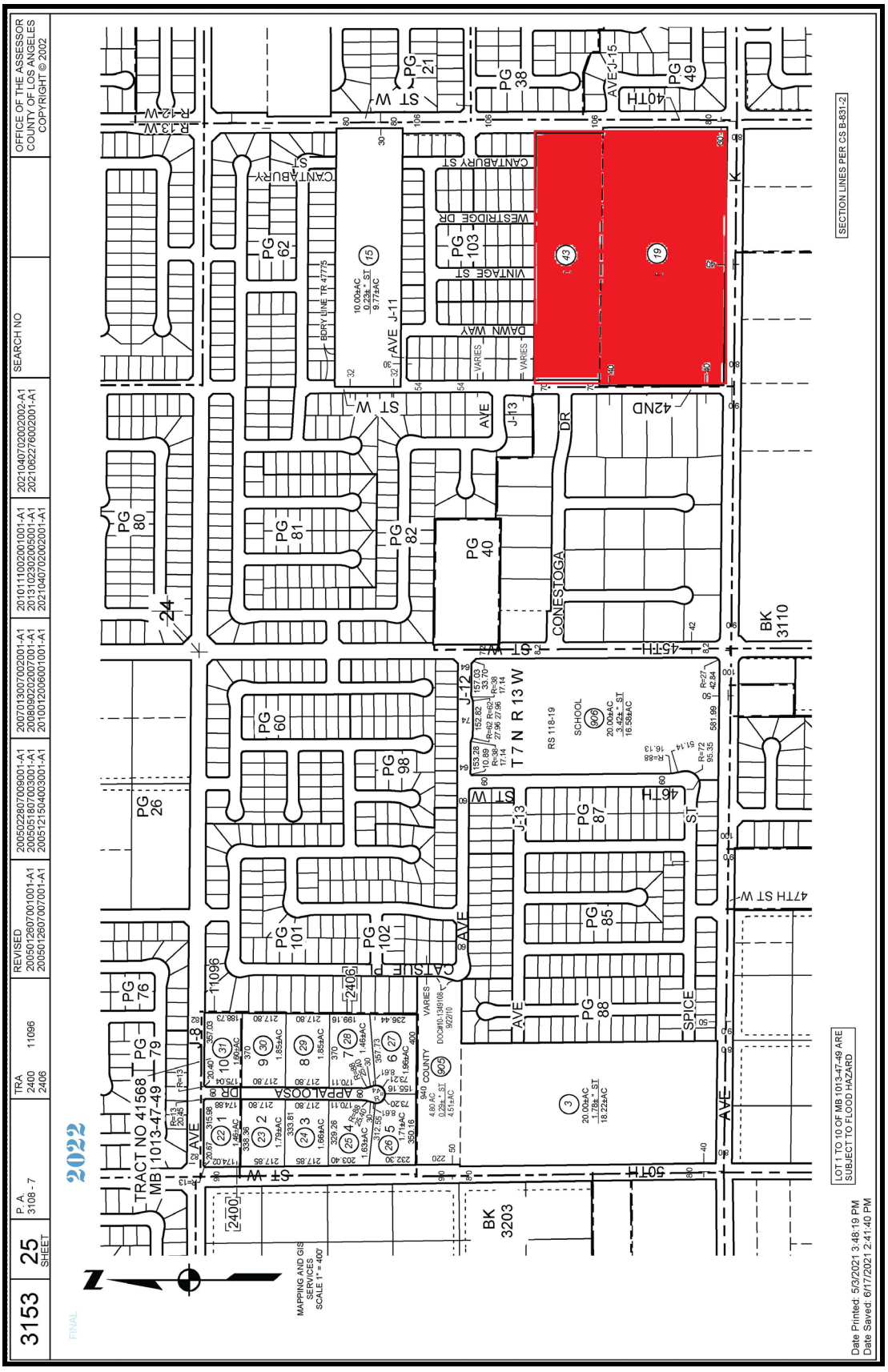
Recommended Protection Measures:

If ground disturbing activities have not occurred within 30 days of the date of this report a burrowing owl survey should be accomplished to ensure burrowing owls have not moved into the study area. If burrowing owls are discovered the guidance outlined in the publication titled "Staff Report on Burrowing Owl Mitigation" will be used for addressing burrowing owl issues on the study site (California Department of Fish and Game 2012).

Significance: Given the size and habitat condition of this study site development would not result in a significant impact to biological resources.

Development has been proposed for APNs 3153-025-019 and 043 (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 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

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

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)*, Northern California legless lizard (*Anniella pulchra*), Joshua tree (*Yucca brevifolia*), desert cymopterus (*Cymopterus deserticola*), Barstow woolly sunflower (*Eriophyllum mohanense*), Rosamond eriastrum (*Eriastrum rosamondense)*, and alkali mariposa lily (*Calochortus striatus*).

Study Area

The approximately 30 acre (12 ha) study area was located north of Avenue K and west of 40th Street West, T7N, R13W, a portion of the SE1/4 of the SE1/4 of Section 24, S.B.B.M. (Figures 2 and 3). Residential housing was present along the northern boundary of the study site. Avenue K formed the southern boundary of the study site. A disturbed Joshua tree desert scrub habitat was south of Avenue K. The eastern boundary of the study site was formed by 40th Street West. Residential housing was present east of 40th Street West. The western boundary was formed by 42nd Street West. Single-family housing was present west of 42nd Street West. Topography of the site was approximately 2,370 feet (722 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 in October 2021 and an east-west orientation in March 2023. North-south line transects were approximately 895 feet (273 m) long and were spaced approximately 100 feet (30 m) apart (U.S. Fish & Wildlife Service 2010). East-west line transects were approximately 1,280 feet (390 m) long and were spaced approximately 75 feet (22 m) apart. 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).

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). 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) (Lancaster West 2020) and eBird.org. Photographs of the study site were taken (Appendix A).

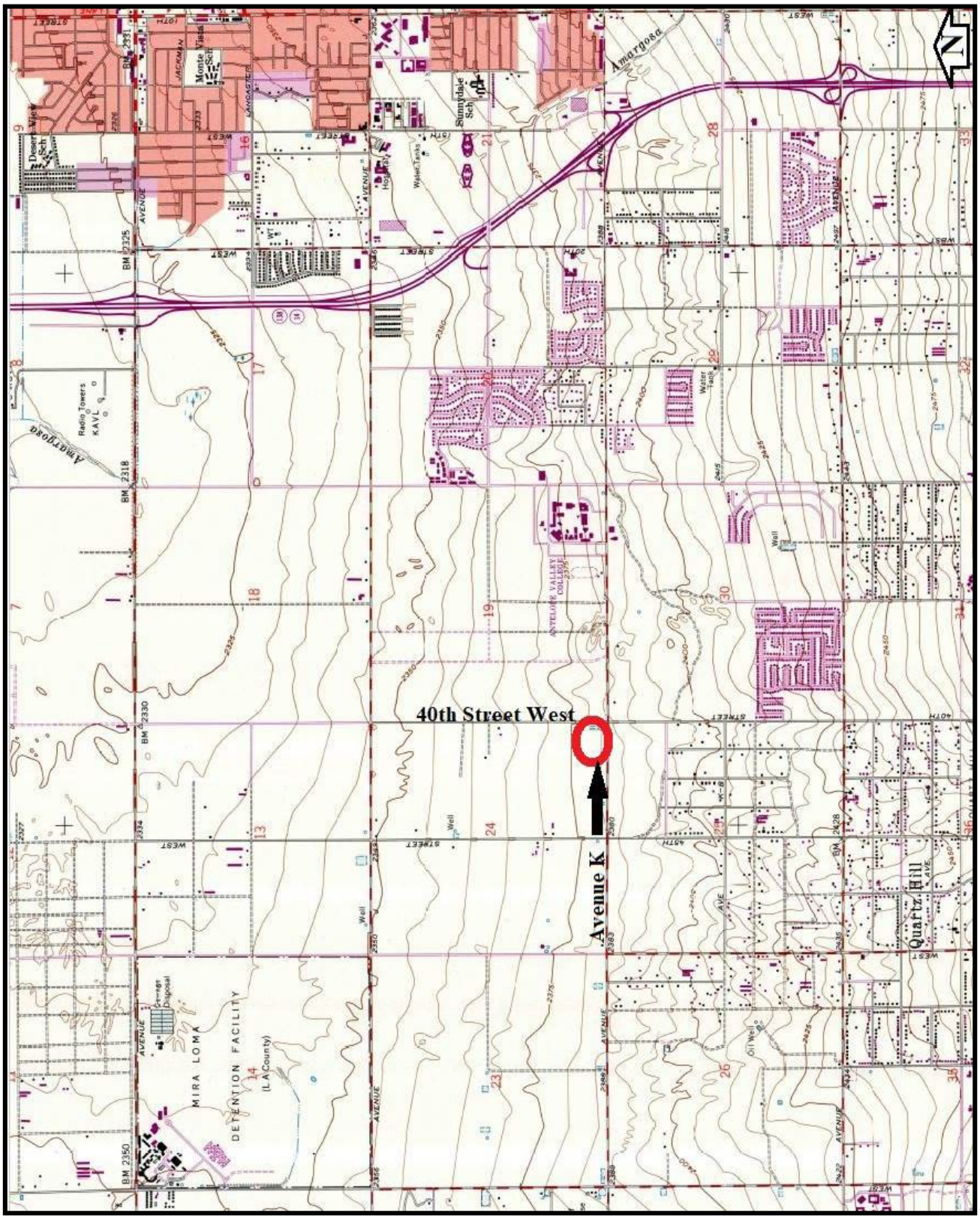


Figure 2. Approximate location of study area as depicted on excerpt from USGS Topographical Map, Lancaster West, 7.5', 1974

Figure 3. Approximate location of study area showing surrounding land use as depicted on excerpt from Google Earth Aerial Photography, July 2021. Development shown on north boundary is now fully built out along the northern boundary.

Results

A total of 4 line transects were walked in October 2021. Weather conditions consisted of warm temperatures (estimated 50 degrees), 0% cloud cover, and light winds. A total of 10 line transects were walked in March 2023. Weather conditions consisted of warm temperatures (estimated 55 degrees), 90% cloud cover, and light to moderate winds. Sandy loam and clay sandy loam surface soil textures were observed within the study area. No blue line streams were found on the USGS topographic map within this study site. No ephemeral washes were observed within the study site.

The study site was characteristic of an abandoned agricultural field. A total of 14 plant species were observed during the line transect survey (Table 1). The study site was all but devoid of perennial shrub species throughout the study area. Red stemmed filaree (*Erodium cicutarium*) and fiddleneck (*Amsinckia tessellata*) were the dominant annual plant species observed within the study site. No Joshua trees, alkali mariposa lilies, Rosamond eriastrum, Barstow woolly sunflowers or desert cymopterus, or suitable habitat were observed within the study site.

A total of 14 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 suitable habitat for desert tortoise was observed within the study site. Mohave ground squirrels were not observed or audibly detected within the study site. No suitable habitat for Mohave ground squirrel was observed within the study site. Based on review of the CNDD no Mohave ground squirrels have been documented in or adjacent to this area. No burrowing owls, or their sign (pellets, small bones, feathers, wash, etc.) were observed during the field survey. No desert kit foxes, or their sign were observed within the study site. No Swainson's hawk nesting has been documented within 5 miles of the study site (eBird 2023). No roosting or nesting habitat was present within the study site for Swainson's hawk. No suitable vegetation was observed for nesting migratory birds within the study site. No Northern California legless lizards were observed, and no suitable habitat was observed within the study area.

Heavy equipment tracks were observed throughout the study site. Remnants of trash dumping, scattered litter, and debris (broken concrete/asphalt, car parts, yard waste, etc.) were observed within the study site. The northeast corner and along the northern boundary of the study site were graded. Soil piles with small amount of trash and construction debris were present within the study site. Old tree trunks were observed within the study site. A dirt parking area was present within the southeast corner of the study site.

Discussion

It is probable that some annual species were not visible during the time the field surveys were performed. However surveys were accomplished in both October and March timeframes with similar plant species observations. Plant species not observed would be expected to consist of common desert annual and weedy annual plant species. 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 APNs 3153-025-019 and 043, Lancaster, California.

Common Name	Scientific Name
Rabbit brush	*Chrysothamnus nauseosis*
Autumn vinegar-weed	*Lessingia germanorum*
Desert dandelion	*Malacothrix glabrata*
Spotted buckwheat	*Eriogonum maculatum*
Buckwheat sp.	*Eriogonum* sp.
Fiddleneck	*Amsinckia tessellata*
Annual burweed	*Franseria acanthicarpa*
Red stemmed filaree	*Erodium cicutarium*
Russian thistle	*Salsola iberica*
Tumble mustard	*Sisymbrium altisissiimum*
Mustard	Brassicaceae
Saltgrass	*Distichlis spicata*
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 3153-025-019 and 043, Lancaster, California.

Common Name	Scientific Name
Rodents	Order: Rodentia
Kangaroo rat	*Dipodomys* sp.
Pocket gopher	*Thomomys bottae*
Desert cottontail	*Sylvilagus auduboni*
Black-tailed jackrabbit	*Lepus californicus*
Domestic dog	*Canis familiaris*
Domestic cat	*Felis* sp.
Mourning dove	*Zenaida macroura*
Rock dove	*Columba livia*
Common raven	*Corvus corax*
White crowned sparrow	*Zonotrichia leucophrys*
Harvester ants	Order: Hymenoptera
Ants, black, small	Order: Hymenoptera
Spider	Order: Araneida

Table 3. List of wildlife species that may occur within the study area, APNs 3153-025-019 and 043, Lancaster, California.

Common Name	Scientific Name
Deer mouse	*Peromyscus maniculatus*
Merriam kangaroo rat	*Dipodomys merriami*
Horned lark	*Eremophila alpestris*
House finch	*Carpodacus mexicanus*
Side blotched lizard	*Uta stansburiana*
Fly	Order: Diptera
Grasshopper	Order: Orthoptera

The study site has been irretrievably impacted. Human impacts are expected to continue to increase as urban development continues to occur in the area. 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 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. Based on field observations, desert tortoises are not present within the study area. No protection measures are recommended for desert tortoises.

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. No Mohave ground squirrels have been documented in the past 30 years on the west side of Lancaster (CNDD 2020). Being an agricultural field, and an isolated site nearly surrounded on all sides would preclude any immigration of Mohave ground squirrels. The presence of domestic dogs (*Canis familiaris*) and cats (*Felis* sp.) would further preclude their presence. No mitigation for this species is recommended.

Burrowing owls are considered a species of special concern by the CDFW. Uncovered underground water lines observed within the study area could provide future cover sites for burrowing owls (Figure 5).

No sensitive plant species or potential habitat were present within the study site. 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, U.S. Fish & Wildlife Service 2016).

Figure 5. Open abandoned irrigation line. Photograph taken 9 October 2021.

Some localized flooding from recent heavy rains was observed within the central portion of the study site. Stormwater flow from Avenue K appeared to have entered the study site along the southern boundary from these recent storms and proceeded approximately 150 feet (46 m) onto the study site. Stormwater flow also occurred just off the western boundary of the study site but did not enter onto the site. Although aerial photography shows what appear to be areas of flooding onto the site the flooding that occurs is from Avenue K overflow caused by development and is not indicative of ephemeral washes. There are no elements within these areas on site that provide the values intended to be protected by Section 1602 Lake and Streambed Alteration Program. Historical photography from 2003 clearly show there were no natural washes flowing into this study site or in the remaining habitat immediately south of Avenue K. No mitigation measures are recommended for localized flooding due to development.

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 ground disturbing activities have not occurred within 30 days of the date of this report a burrowing owl survey should be accomplished to ensure burrowing owls have not moved into the study area. If burrowing owls are discovered the guidance outlined in the publication titled "Staff Report on Burrowing Owl Mitigation" will be used for addressing burrowing owl issues on the study site (California Department of Fish and Game 2012).

Significance: Given the size and habitat condition of this study site development would not be considered a significant impact to biological resources.

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Appendix A

Representative photographs from approximate center of the study site, taken on 6 March 2023.

Looking north

Looking northwest

Looking southeast

Looking south

Looking southwest

Looking northwest