# Biological Resource Assessment
# of APNs 3140-009-003 and 006
# Lancaster, California

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Biological Resource Assessment of APNs 3140-009-003 and 006, Lancaster, California

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**Abstract**

Development has been proposed for APNs 3140-009-003 and 006. The approximately 2.5 acre (1 ha) study area was located west of Challenger Way and north of Avenue J-6, T7N, R12W, a portion of the SE1/4 of the NE1/4 of the NE 1/4 of Section 23, S.B.B.M. A random transect survey was conducted on 26 March 2022 to inventory biological resources. The study area was characteristic of a highly disturbed lot. A total of 24 plant species and 13 wildlife species or their sign were observed during the line transect survey**.** Approximately 70% of the plant species were nonnative or invasive. No suitable habitat for desert tortoise (*Gopherus agassizii*) was present within the study area. No desert kit foxes (*Vulpes macrotis*) or their sign were observed during the line transect survey. The study site did not support Mohave ground squirrel (*Xerospermophilus mohavensis*) habitat. No burrowing owls (*Athene cunicularia*) or their sign were observed during the field survey. The trees within and adjacent to the project site may provide potential nesting sites for migratory birds. No nesting Swainson's hawks have been documented nesting within 5 miles of the project site. The study area does not provide sufficient forage for Swainson's hawk or other raptors due to parcel size, human usage, and disturbed habitat. No sensitive plants, such as Joshua tree (*Yucca brevifolia*), alkali mariposa lily (*Calochortus striatus*), desert cymopterus (*Cymopterus deserticola*) or Barstow woolly sunflower (*Eriophyllum mohanense*) were observed within the study area or are expected to be present due to the high level of impacts and lack of suitable habitat. No other state or federal listed species are expected to occur within the study area. No natural ephemeral streams or washes occur within the study area. A manmade runoff drainage is present within the study site.

**Recommended Protection Measures**:

If possible, removal of the tree within the study site will occur outside the breeding season for migratory birds. Breeding generally lasts from February to July but may extend beyond this time frame. If ground disturbing activities will occur during or close to the nesting season, a qualified biologist will survey all potential nesting areas in and adjacent to the project site as close as possible but no more than one week prior to these activities. 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.

A burrowing owl survey should be accomplished within 14 days prior to construction activities to ensure burrowing owls have not moved into the study area. If burrowing owls are discovered the guidance outlined in the California Department of Fish and Wildlife 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).

Based on the condition of the habitat, the small size of the study area, surrounding land use, and lack of sensitive wildlife sign, no other protection measures are recommended.

**Significance:** Given the 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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Development has been proposed for APNs 3140-009-003 and 006 (Figure 1). Development would include installation of paved access roads and utilities (natural gas, water, sewer, electric, telephone). 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 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*), burrowing owl (*Athene cunicularia*), Swainson's hawk (*Buteo swainsoni*), Joshua tree (*Yucca brevifolia*), alkali mariposa lily (*Calochortus striatus*), desert cymopterus (*Cymopterus deserticola*), and Barstow woolly sunflower (*Eriophyllum mohanense*).

**Study Area**

The approximately 2.5 acre (1 ha) study area was located west of Challenger Way and north of Avenue J-6, T7N, R12W, a portion of the SE1/4 of the NE1/4 of the NE 1/4 of Section 23, S.B.B.M. (Figures 2 and 3). Block walls and single-family homes existed along the western, southern, and northern boundaries. Highly disturbed lots existed along the eastern boundaries of the study site. A single-family home was located approximately 530 feet (161.5 m) east of the study site. Challenger Way was adjacent to the east side of this home.

**Methods**

A random transect survey was conducted to determine habitat suitability for sensitive species and inventory plant and wildlife species occurring within the proposed project area (Cooperrider et al. 1986, Davis 1990). Random transects were walked within the study area and adjacent areas were evaluated (U.S. Fish & Wildlife Service 2010). This transect orientation 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 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.

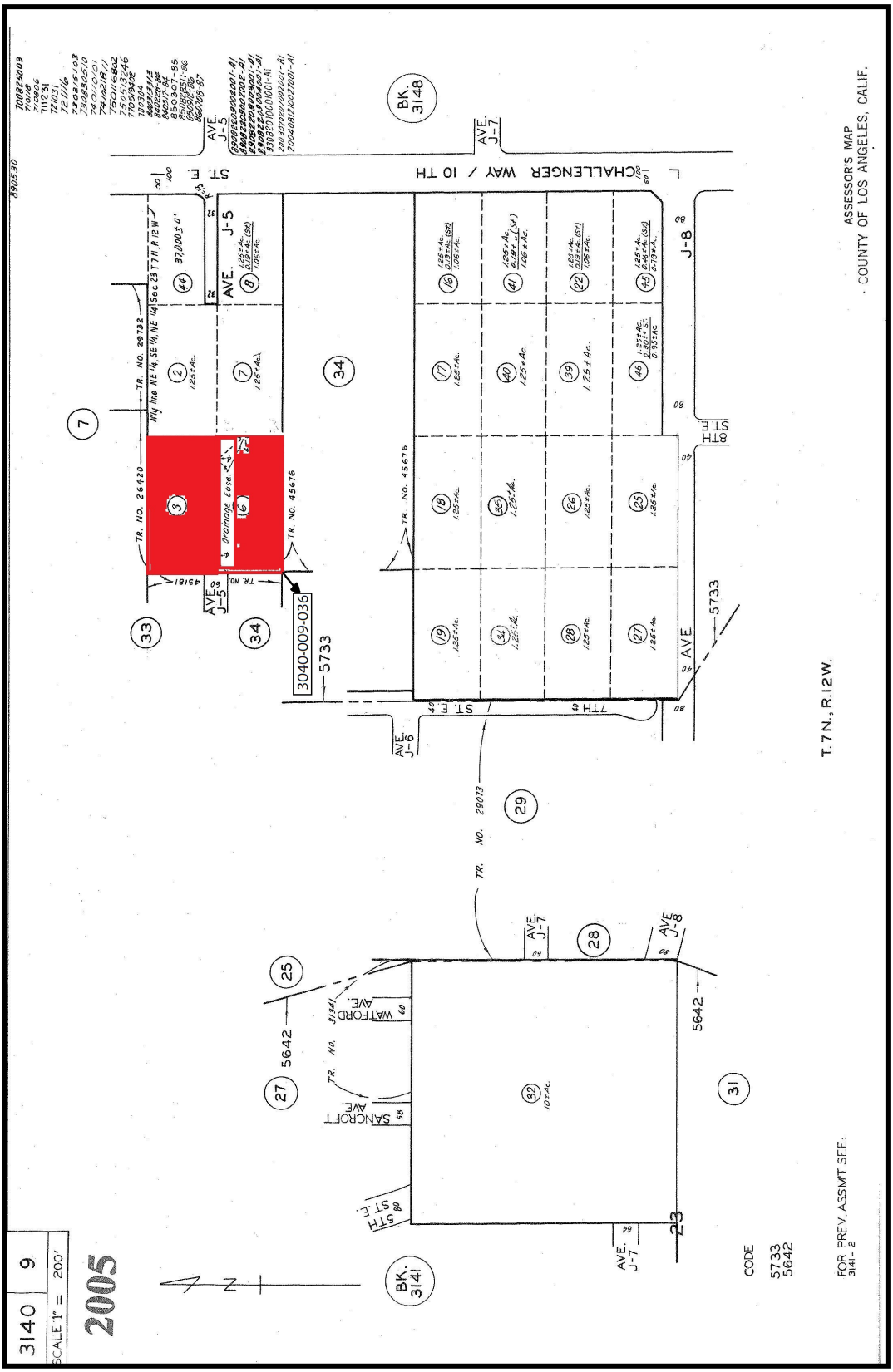


Figure 1. Location of proposed project area as depicted on APN map.


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

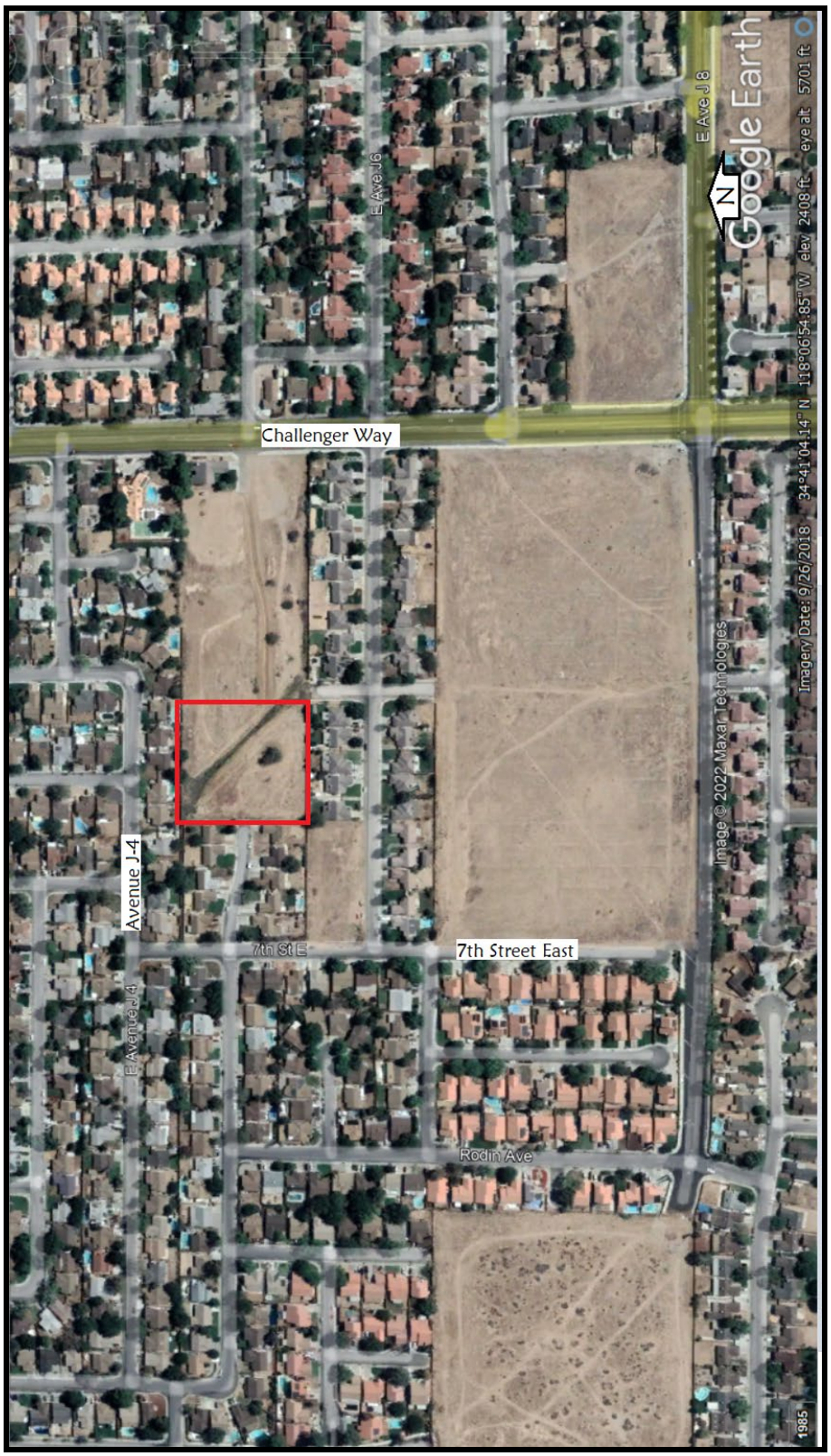


Figure 3. Approximate location of study area, Google Earth, September 2018, showing surrounding land use.

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 (CNDDB 2020) and eBird.org (eBird 2022). Previous surveys of the project site were reviewed for historical sightings and background information (Hagan 2007, 2010). Photographs of the study site were taken (Figure 4).

**Results**

A total of 6 random transects were walked on 26 March 2022. Weather conditions consisted of warm temperatures (75 degrees F), 10% cloud cover, and no wind. A sandy loam surface soil texture was characteristic throughout the study area. Topography of the study area ranged from approximately 2,395 to 2,398 feet (730 to 731 m) above sea level. There were no blue line streams delineated on the U.S.G.S. topographic map within the study area. There were no washes or streams observed within the project site. A manmade runoff drainage is present within the study site.

The study area was characteristic of a highly disturbed lot. A total of 24 plant species were observed during the line transect survey (Table 1). The study site was all but devoid of perennial shrub species. Two ornamental trees were present within the study site. Red stemmed filaree (*Erodium cicutarium*) and exotic grasses were the dominant plant species. Approximately 70% of the plant species observed were nonnative or invasive. No sensitive plant species or suitable habitat was observed within the study area.

A total of 13 wildlife species, or their sign were observed during the line transect survey (Table 2). No desert tortoise habitat was present within the study site. No Mohave ground squirrel habitat was present within the study site. No desert kit foxes, or their sign were observed during the field survey. No burrowing owls or their sign were observed within the study site. California ground squirrel (CGS) (*Citellus beecheyi*) burrows were observed within the study site. Swainson's hawks were not observed within the study area. No bird nests were observed within the study area.

A manmade drainage was observed within the study site, oriented southeast to northwest. Water from street runoff (irrigation) was observed flowing into the drainage during the field survey. Maintenance debris (mud/vegetation) from the drainage was observed along its length. Scattered litter and debris were observed within the study site. Heavy vehicle tracks were observed within the study area. Broken concrete and yard waste were observed within the study site. A dirt road was observed within the northern portion of the study site. A shallow excavation was observed within the study site.

Figure 4. Representative photographs of the study site. Top photograph is view from the southeast corner looking north. Bottom photograph is view from southeast corner looking west.

Table 1. List of plant species that were observed during the line transect survey of APNs 3140-009-003 and 006, Lancaster, California.

| Common Name | Scientific Name |
|---|---|
| American elm | *Ulmus americana* |
| Turkey mullein | *Eremocarpus setigerus* |
| Comb-bur | *Pectocarya recurvata* |
| Fiddleneck | *Amsinckia tessellata* |
| Plantain | *Plantago* sp. |
| Rattlesnake weed | *Euphorbia albomarginata* |
| Red stemmed filaree | *Erodium cicutarium* |
| Horseweed | *Canyza honariensis* |
| Sahara mustard | *Brassica tournefortii* |
| Tumble mustard | *Sisymbrium altisissiimum* |
| Tansy mustard | *Descurainia sophia* |
| Annual burweed | *Franseria acanthicarpa* |
| Russian thistle | *Salsola iberica* |
| Common Dandelion | *Taraxacum* sp. |
| Clover | Family: Fabaceae |
| Squirrel-tail grass | *Hordeum jubatum* |
| Ripgut grass | *Bromus diandrus* |
| Foxtail barley | *Hordeum leporinum* |
| Red brome | *Bromus rubens* |
| Cheatgrass | *Bromus tectorum* |
| Bermuda grass | *Cynodon dactylon* |
| In runoff drainage | |
| Cattail | *Typha* sp. |
| Rush | *Juncus* sp. |
| Alkali bulrush | *Bolboschoenus maritimus* |

Table 2. List of wildlife species, or their sign, that were observed during the line transect survey of APNs 3140-009-003 and 006, Lancaster, California.

| Common Name | Scientific Name |
|---|---|
| California ground squirrel | *Citellus beecheyi* |
| Domestic dog | *Canis familiaris* |
| Domestic cat | *Felis* sp. |
| Mallard | *Anas platyrhynchos* |
| Mourning dove | *Zenaida macroura* |
| Rock dove | *Columba livia* |
| Common raven | *Corvus corax* |
| Common flicker | *Colaptes auratus* |
| Side blotched lizard | *Uta stansburiana* |
| Beetle, black | Order: Coleoptera |
| Darkling beetle | *Coelocnemis californicus* |
| Harvester ants | Order: Hymenoptera |
| Ants, small, red | Order: Hymenoptera |

**Discussion**

It is probable that most annual species were visible during the time the field survey was performed. 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).

Human impacts in the area have already degraded and severely fragmented the general area and are expected to increase as urban development continues to occur near and adjacent to the study 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.

Burrowing owls are considered a species of special concern by the California Department of Fish and Wildlife (CDFW). Although no burrowing owls or their sign were observed during the survey, the California ground squirrel burrows could provide future potential cover sites for burrowing owls. Given the level of human and pet activity within this fragment of vacant land it is unlikely burrowing owls would immigrate into the area.

The proposed project area was 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. However, the study area lacks suitable habitat to support Mohave ground squirrels (CDFW 2019).

Many species of birds and their active nests are protected under the Migratory Bird Treaty Act. The ornamental trees within the study area and those adjacent to the study site provide potential nesting sites for migratory birds. No nesting Swainson's hawk nests have been documented within 5 miles of this study site (eBird 2022, CDNDB 2020). Swainson's hawk observations appear to be strongly correlated to active agricultural fields, parks, and large retention basins within the Antelope Valley (eBird 2022, CNDDB 2020). The study area does not provide sufficient forage for Swainson's hawk or other raptors due to parcel size, human usage, and disturbed habitat. The small, highly disturbed area would be an insignificant loss to raptor foraging.

Water from street runoff (irrigation) was observed flowing down 8th Street East and into the drainage during the field survey from the northeast corner of the study area. There had been no rain that would account for the runoff. Maintenance debris (mud/vegetation) from the drainage was observed along its length. This is noted as a drainage easement on the APN map (Figure 1). An approximately 25 foot (8 m) graded area on both sides of the drainage was present. Due to continual maintenance of the drainage, vegetation within it was small and sparse. This portion of the study site has been surveyed on two previous occasions and had

Table 3. List of wildlife species that may occur within the study area, APNs 3140-009-003 and 006, Lancaster, California.

| Common Name | Scientific Name |
|---|---|
| Rodents | Order: Rodentia |
| House finch | *Carpodacus mexicanus* |
| European starling | *Sturnus vulgaris* |
| Northern mockingbird | *Mimus polyglottos* |
| House sparrow | *Passer domesticus* |
| Grasshopper | Order: Orthoptera |
| Spider | Order: Araneida |

water flowing from the street into the drainage on both those occasions. Vegetation within this drainage was more limited than on previous surveys. During the survey 2 mallards were initially present but chased away by common ravens. There were many ravens within the study site at the start of the survey. No significant value to wildlife is considered present due to the ongoing maintenance, and usage of area by pets and children.

No suitable habitat for Joshua trees, alkali mariposa lilies, Barstow woolly sunflowers or desert cymopterus was observed within the study site. Based on the results of the field survey these species do not 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). This project is not expected to result in a significant adverse impact to biological resources.

**Recommended Protection Measures**:

If possible, removal of the tree within the study site will occur outside the breeding season for migratory birds. Breeding generally lasts from February to July but may extend beyond this time frame. If ground disturbing activities will occur during or close to the nesting season, a qualified biologist will survey all potential nesting areas in and adjacent to the project site as close as possible but no more than one week prior to these activities. 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.

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